



Endangered Species Protection in the Arctic:
A Comparative Legal Study of the Polar Regions of Europe
and North America

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This thesis is dedicated to the wonderful girls of 1st Jesmond (JPC) Rangers
who frequently had to fend for themselves while I went gallivanting
off round the Arctic.

And also to:

James Edward Levey

Rebecca Sarah Wood

Thomas Matthew Walley

Phoebe Elizabeth Walley

Noah Eli Foster

Grace Elizabeth Foster

Hannah Grace Tufton

Nell Grace Jackson

Here, finally, is the polar bear story which I have been writing.¹

¹ 'Auntie Sarah, have you finished your polar bear story yet?' Noah Foster, aged 8, April 2019.

Abstract

The Arctic is changing faster than any other region on earth. Climate change is leading to warming within the Arctic at least twice the rate of the rest of the planet. Climate change, combined with the impact of pollution, plastics in the ocean, natural resource extraction, and many other harmful anthropogenic activities, is threatening the survival of many Arctic species. Reliant on sea ice habitats or adapted to bitterly cold conditions, animals and plants in the Arctic are facing extinction if they cannot be protected.

Endangered species protection in the Arctic is primarily the responsibility of the nation states with territory north of the Arctic Circle. Each country has their own laws and regulations aimed at protecting species. This project uses a comparative legal method to assess the effectiveness of the endangered species protection systems within the domestic legal systems of the Arctic nations of Europe and North America. The study considers the legislation, regulations and other written laws of each country as well as using a number of case studies to demonstrate how the law is used in practice. Selection of the case studies is made possible through the collation of reported endangered species court cases from north of the Arctic Circle over the past two decades.

By conducting a comparison of domestic endangered species protection laws within the Arctic, this project identifies strengths and weaknesses in the systems of the various jurisdictions, draws on examples of good practice which could be used to influence changes in the approach of other Arctic countries and makes recommendations of improvements which need to be made to help Arctic species to survive the threats which they will face in the coming years.

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‘The earth is the Lord’s, and everything in it, the world, and all who live in it;
for he founded it on the seas and established it on the waters.’

Psalm 24 v 1-2

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Map of the Arctic



Figure 1: Map of the Arctic
Source: University of Texas Libraries, United States Central Intelligence Agency

1. Introduction

1.1. Introduction

The Arctic is melting. Fast. In the coastal town of Nuiqsut in Arctic Alaska they talk of a ‘new climate era’.² Changes are occurring across all aspects of life but are particularly dramatic offshore with sea ice decreasing in extent, and in thickness, and sea temperatures rising on an almost annual basis. The Intergovernmental Panel on Climate Change’s fifth assessment report found that there has been a ‘consistent pattern of climate-driven environmental, societal and economic changes in the polar regions in recent decades’.³ The Arctic Monitoring and Assessment Programme’s Snow, Water, Ice and Permafrost in the Arctic report (known as SWIPA) published in 2017, recorded that temperatures in the Arctic have risen twice as fast as temperatures in the rest of the world.⁴ In the last thirty years, the area of the Arctic covered by sea ice has decreased by 8%, with a loss of up to 20% of late summer ice.⁵ SWIPA predicted that the Arctic Ocean will be ice free during the summer by the late 2030s.⁶ Environmental threats to the Arctic are posed by climate change, industrial development, resource exploitation and extraction methods, sea ice habitat loss, pollution and tourism.⁷ Unless temperature increases are halted, loss of sea ice cover will result in habitat destruction, endangering many cold dependent species.

This is, undoubtedly, an era of dramatic environmental change in the Arctic and unless significant solutions are found to combat the effects of climate change and other environmental threats to the Arctic, we will witness, within our lifetimes, the total and devastating loss of polar habitats, particularly sea ice, and of the species which rely on those polar habitats for their survival. While many of the solutions will need to be undertaken on a global scale, examples of practice which could be used across the Arctic to deal with

² Michael Brubaker and others, *Climate Change in Nuiqsut, Alaska* (Alaska Native Tribal Health Consortium Centre for Climate and Health 2014).

³ JN Larson and others, ‘Polar Regions’ in VR Barros and others (eds), *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press 2014) 1572.

⁴ *Snow, Water, Ice and Permafrost in the Arctic (SWIPA): Summary for Policymakers* (Arctic Monitoring and Assessment Programme 2017).

⁵ Arctic Monitoring and Assessment Programme, *Impacts of a Warming Arctic: Arctic Climate Impact Assessment* (Cambridge University Press 2004) 140.

⁶ *Snow, Water, Ice and Permafrost in the Arctic (SWIPA): Summary for Policymakers* (n 4).

⁷ Yoshifumi Tanaka, *The International Law of the Sea* (2nd edn, Cambridge University Press 2015) 335.

protecting endangered species can already be found in national regulations and in court judgments from the domestic courts of Arctic nations. For example, the United States has recently decided to list the polar bear and a number of species of ice seal as threatened species because of the concern over the impact of climate change on the sea ice on which these species rely. The listings, and the protections which come with them, have been heavily litigated but were ultimately upheld by the US Court of Appeals.⁸ The work of the United States in protecting ice dependent species threatened by melting sea ice in this way could provide a model for use in other Arctic countries. While the legal systems of the Arctic nations are very different, the environmental threats, the geography, the species and the climate are similar across the Arctic and the good practice approaches of one country could be used to influence other countries to adopt similar good practice or to create other solutions.

This project brings together environmental judgments, laws and practice from different jurisdictions across the Arctic in order to compare and contrast the approach of those jurisdictions to endangered species protection. Legal research methods make it possible to use the body of law created to analyse and compare the different legal approaches to common threats to Arctic species, particularly climate change, in order to find examples of good practice, drawing insight from across the polar region. These examples could be adopted by the other Arctic jurisdictions, or by the Arctic countries collaboratively, as they seek to protect biodiversity and endangered Arctic species from a variety of environmental threats including climate change, pollution, natural resource extraction, tourism, habitat degradation and species loss. This work is important and timely because at the moment there is still an opportunity to improve the protection of Arctic species which may become endangered in the coming decades. If changes are not made, and if the endangered species protection systems within the jurisdictions in the Arctic are not sufficiently robust to deal with future environmental changes then many Arctic species risk becoming extinct.

1.2. Research Questions

In order to conduct this study, to build a body of Arctic endangered species law, to compare and contrast the various legal systems and to reach conclusions which will improve the

⁸ *Alaska Oil & Gas Association v Jewell* 815 F3d 544 (9th Circuit 2016).

protection of species in the Arctic, it was necessary to answer a number of research questions.

1. What laws, rules, regulations or other legal instruments are in place to protect species within the Arctic regions of the six Arctic countries included in this study (USA, Canada, Greenland, Norway, Sweden and Finland)?
2. What endangered species cases have been brought before the court systems of the Arctic countries included in this study and how have the courts dealt with the issues before them?
3. In comparing and contrasting the species protection systems in the six Arctic countries as they apply to particular species, what examples of good practice can be found and can any omissions be highlighted? If so, how could positive examples from other Arctic jurisdictions be used to improve species protection laws?
4. What role does independent scientific evidence play in the selection of species for listing as endangered in the jurisdictions considered in this study? Are the committees which make the decisions about the listing of species independent and, if so, should they be? What changes need to be made to improve the scientific basis on which species protection decisions are made?
5. What threats are the current structures of endangered species protection designed to protect against? Are these structures sufficiently flexible to deal with the changing environmental threats to the Arctic such as climate change and pollution? If not, what changes need to be made to ensure that Arctic species are better protected against future threats?

1.3. Contribution to the Field

This thesis makes a contribution to the field of Arctic environmental law by conducting a study which has not been undertaken before and thereby providing new insights into endangered species protection in the Arctic, and a comparative critique of the way in which the endangered species protection systems currently work north of the Arctic Circle. This project is different to almost all of the existing literature on Arctic environmental law. Scholarship and research in this area has tended to focus on comparing the Arctic with the Antarctic, or considers Arctic governance and international environmental law through the Arctic Council or the United Nations Convention on the Law of the Sea.⁹ Many of the academics and lawyers writing in this area seem to fall into the same trap, that of prioritising systems over environmental change. Most, if not all, lawyers share the same deep desire to develop a neater, more organised system and those who work in Arctic law are no different; on both sides of the argument there is a longing for a more organised system. For many this takes the form of an Arctic Treaty like that which governs the Antarctic.¹⁰ For others it is though strengthening the authority of the Arctic Council.¹¹ On both sides of the debate, however, the driving forces behind their suggestions seem to be less about finding the best ways to protect the environment and more about ensuring that environmental protection in the Arctic is better organised. Few of the articles offer any concrete suggestions about what measures should or even could be taken to protect the Arctic environment; instead they focus on the structures of governance.

⁹ Erika Lennon, 'A Tale of Two Poles: A Comparative Look at the Legal Regimes in the Arctic and the Antarctic' 8(3) Sustainable Development Law and Policy 32; Timo Koivurova, 'Environmental Protection in the Arctic and Antarctic: Can the Polar Regimes Learn From Each Other?' (2005) 33(2) International Journal of Legal Information 204; Timo Koivurova, 'Alternatives for an Arctic Treaty - Evaluation and a New Proposal' (2008) 17(1) Review of European, Comparative and International Environmental Law 14; Linda Nowlan, *Arctic Legal Regime for Environmental Protection* (IUCN Environmental Policy and Law Paper No 44, International Union for Conservation of Nature and Natural Resources 2001); David L VanderZwaag, Robert Huebert and Stacey Ferrara, 'The Arctic Environmental Protection Strategy, Arctic Council and Multilateral Environmental Initiatives: Tinkering While the Arctic Marine Environment Totters' in Alex G Oude Elferink and Donald R Rothwell (eds), *The Law of the Sea and Polar Maritime Delimitation and Jurisdiction* (Kluwer Law International 2001); Donald R Rothwell, 'International Law and the Protection of the Arctic Environment' (1995) 44 International and Comparative Law Quarterly 280; Gail Osherenko and Oran Young, *The Age of the Arctic* (Cambridge University Press 1989); Philippe Sands and others, *Principles of International Environmental Law* (3rd edn, Cambridge University Press 2012); Melissa A Verhaag, 'It Is Not Too Late: The Need for a Comprehensive International Treaty to Protect the Arctic Environment Note' (2002) 15 Georgetown International Environmental Law Review 555; Rosemary Rayfuse, 'Melting Moments: The Future of Polar Oceans Governance in a Warming World' 16(2) Review of European, Comparative and International Environmental Law 196; Oran R Young, 'The Arctic Council at Twenty: How to Remain Effective in a Rapidly Changing Environment' (2016) 6 UC Irvine Law Review 99; Oran R Young, 'If an Arctic Ocean Treaty Is Not the Solution, What Is the Alternative?' (2011) 47(243) Polar Record 327.

¹⁰ Lennon (n 9); Nowlan (n 9); Sands and others (n 9); European Parliament Resolution of 9 October 2008 on Arctic Governance [2010] OJ C 9 E/41 2008; Verhaag (n 9).

Rather than comparing the two poles and the international laws which apply to them, this thesis acknowledges that, unlike the Antarctic, the Arctic is made up of many different domestic legal systems, each with their own way of handling environmental law, and in particular endangered species protection, and compares the systems within the Arctic to ascertain whether these systems provide any real solutions or suggestions for good practice in endangered species protection which could be implemented in the other Arctic jurisdictions. The comparative nature of this project also allows for any gaps and omissions to be highlighted and for proposals to be made to fill those gaps.

There have been a few comparative environmental studies conducted in the Arctic although most cover far fewer jurisdictions than this thesis and there are almost no studies which compare Arctic endangered species protection. Comparative studies which are concerned with environmental topics other than endangered species protection include Bob Reiss' *The Eskimo and the Oil Man* which, while primarily being a book about the oil industry in northern Alaska, also considers lessons to be learned from Norway, a brief, fairly vague, student article about environmental regulation and the polluter pays principle in the USA and Norway and Koivurova et al's study of the legal protections for Sámi people from adverse impacts of mining in Finland, Norway, Russia and Sweden.¹² Other studies which compare environmental topics in the Arctic include Helle Anker et al's study of the role which the Nordic courts play in environmental law and Elena Gladun's article about environmental regulation in relation to extraction industries in the Russian Arctic which is based on a comparison of Russia with the United States, Norway and Canada.¹³

Another comparative study about environmental law in the Arctic is Koivurova's doctoral thesis, completed in 2002, which focussed on environmental impact assessment rather than endangered species protection.¹⁴ The thesis, and subsequent book was primarily concerned

¹¹ Koivurova, 'Environmental Protection in the Arctic and Antarctic: Can the Polar Regimes Learn From Each Other?' (n 9); Koivurova, 'Alternatives for an Arctic Treaty - Evaluation and a New Proposal' (n 9).

¹² Bob Reiss, *The Eskimo and the Oil Man: The Battle at the Top of the World for America's Future* (Business Plan 2012); Aaron Cooper, 'Offshore Hydrocarbon, Regulation in the Arctic: What Lessons Can the United States Learn From Norway' (2014) 19(1) *Coventry Law Journal* 27.

¹³ Helle Tegner Anker and others, 'The Role of Courts in Environmental Law – a Nordic Comparative Study' (2009) 1 *Nordic Environmental Law Journal* 18; Elena Gladun, 'Environmental Protection of the Arctic Region: Effective Mechanisms of Legal Regulation' (2015) 3 *Russian Law Journal* 92.

¹⁴ Timo Koivurova, *Environmental Impact Assessment in the Arctic: A Study of International Legal Norms* (Ashgate Publishing Ltd 2002).

with the international legal norms which affect the planning of, and environmental impact assessments for, large industrial works.¹⁵ In 2016, Koivurova and Pamela Lesser, along with other academics, published an updated work dealing with comparative environmental impact assessment in the Arctic and the best practice which, much like this thesis, has a country study for each of the Arctic nations which explains the environmental impact assessment regime within that country.¹⁶ The comparison is conducted by way of a synthesis chapter at the end of the book.¹⁷ This latter book provides a comparative legal study of the domestic legal systems of the Arctic nations, in a similar way to this thesis. Like with the comparative studies described above, the subject matter is quite different to the current project and there is little, if any, overlap.

There are some articles which consider endangered species protection in the Arctic although they tend either to compare a more limited number of countries or deal with comparisons over a single species. For example, Robin Waples et al write about the differences in listing practices under the Endangered Species Act 1973 in the USA and the Canadian Species at Risk Act 2002 and Andrea Olive and Andrew Rabe's work on environmental justice for indigenous people in the endangered species regimes in the USA and Canada.¹⁸ When it comes to individual species, certain key Arctic species tend to attract comparison more than others. Kristian Lautu discusses the economic value of a polar bear in the court systems of the Arctic jurisdictions while Yaffa Epstein compares policy approaches to wolves in the Europe Union and the United States.¹⁹

A similar selection of articles has been published in relation to endangered species in other parts of the world. Many of these articles also focus on a single species such as Kamran Safi and Gerald Kerth's study on bats or Miklós Antal's comparison of measures to protect

¹⁵ *ibid.*

¹⁶ Timo Koivurova and others, *Environmental Impact Assessment in the Arctic: A Guide to Best Practice* (Edward Elgar Publishing 2016).

¹⁷ *ibid.* 202.

¹⁸ Robin S Waples and others, 'A Tale of Two Acts: Endangered Species Listing Practices in Canada and the United States' (2013) 63 *BioScience* 723; Andrea Olive and Andrew Rabe, 'Indigenous Environmental Justice: Comparing the United States and Canada's Legal Frameworks for Endangered Species Conservation' (2016) 46 *American Review of Canadian Studies* 496.

¹⁹ Kristian Cedervall Lautu, 'What's the Price of a Polar Bear?' in Vibe Ulfbeck, Anders Møllmann and Bent Ole Gram Mortensen (eds), *Responsibilities and Liabilities for Commercial Activity in the Arctic: The Example of Greenland* (Routledge 2016); Yaffa Epstein, 'Killing Wolves to Save Them? Legal Responses to "Tolerance Hunting" in the European Union and United States' (2017) 26 *Review of European, Comparative & International Environmental Law* 19.

birds being harmed by power lines.²⁰ Other contributions to the literature deal with international law rather than national legal regimes or are written in the form of an encyclopaedia or other similar format and provide no comparison or analysis.²¹ Gareth Mauck wrote a fascinating study of wildlife offences in the countries of sub-Saharan Africa, from Angola to Zimbabwe but even this has no comparative analysis as part of the project.²² Although these studies exist, there is nothing in the current literature which provides a comparison of endangered species protection law across the Arctic nations of Europe and North America, dealing with a broad range of species, both terrestrial and marine. As such, this project provides an original contribution to the field of environmental law in the Arctic and one of few, if any, similar studies for any region of the world.

One particular contribution to the field is the identification, in Part III, of three different structures of endangered species protection laws. No other literature categorising endangered species protection laws in this way has been found and these categories were determined for this thesis from the comparative analysis which took place. Although this analysis only applies to the Arctic countries it is reasonable to think that the endangered species protection laws of many other countries will also fit within these classifications and it is hoped that this will prove useful for future comparative law studies in the field of species protection.

As well as providing a contribution to knowledge in terms of a comparative legal study which has never been carried out before, this thesis also provides a small contribution to the field of methodology in comparative law. As is explained at 2.6 below and 2.8.3 below, the method used in this thesis is based on Kamba's three part method.²³ However, while this thesis adopts Kamba's first two phases, the descriptive phase and the identification phase, Kamba's third phase, the explanatory phase would not have proved useful in

²⁰ Kamran Safi and Gerald Kerth, 'A Comparative Analysis of Specialization and Extinction Risk in Temperate-Zone Bats' (2004) 18 *Conservation Biology* 1293; Miklós Antal, 'Policy Measures to Address Bird Interactions with Power Lines – a Comparative Case Study of Four Countries' (2010) 81 *Journal of African Ornithology* 217.

²¹ Peter H Sand, 'Endangered Species', *Max Planck Encyclopaedia of Public International Law* (Oxford University Press 2017); Malgosia Fitzmaurice, David M Ong and Panos Merkouris, *Research Handbook on International Environmental Law* (Edward Elgar Publishing 2010); Kurt Deketelaere (ed), *International Encyclopaedia of Environmental Law* (Wolters Kluwer Law & Business).

²² Gareth Mauck, *Wildlife Legislation in Sub-Saharan Africa: Criminal Offences*.

²³ WJ Kamba, 'Comparative Law: A Theoretical Framework' (1974) 23(3) *International and Comparative Law Quarterly* 485.

attempting to answer the research questions. It was therefore necessary to develop a different third phase, the evaluatory phase (see 2.8.3 below). This method proved to be very successful in this project and it is hoped that this modified version of Kamba's method will prove useful to other researchers in the field of comparative law.

1.4. Organisation of the Thesis

After this introduction, which sets out the research questions, the contribution that this thesis makes to the field of endangered species protection law in the Arctic and includes other useful introductory material, this thesis is organised into four main sections. The first substantive chapter in this thesis, chapter 2, is the methodology which begins with a detailed discussion about the theory of comparative law and the various ways in which it can be conducted (see 2.5 below). This is followed by a discussion of the methodological framework selected for this project, the details of the methods used and the ways in which the limitations of the methods were overcome (see 2.8 below). After the methodology, in chapter 3, are introductions to the six country studies. Each country study describes the endangered species protection laws in one of the six Arctic countries included in this study as well as providing information about the history and geography of the country, the legal system, the type of wildlife found in the Arctic region of that country and some case studies which show something of how the laws work in practice. Some of the countries included in this study contain more than one legal jurisdiction and where this is the case, the endangered species protection systems in each jurisdiction in the Arctic is discussed. As the country studies are too long to be included in their entirety within the wordcount allowed, only the introductions are included in chapter 3. The country studies themselves can be found in appendices A to G, arranged in geographical order from west to east.

The country studies form the first stage of a comparative legal study, the descriptive phase. The other two phases, the identification phase and the evaluatory phase are found in the critical analysis which forms chapter 4 of this thesis. The critical analysis covers the main themes which became clear as the comparative work was conducted, a consideration of how the laws are applied to particular species, analysing the use of science in endangered species protection and assessing how well the current systems of endangered species protection will be able to deal with the changing threats to the Arctic such as climate change and pollution. The final chapter, chapter 5, is the conclusion setting out what this thesis has demonstrated and the ways in which the research questions have been answered.

1.5. Defining the Arctic

The Arctic is the part of the planet which surrounds the north pole.²⁴ The area is formed from the Arctic Ocean, which at the moment, is partially frozen all year round and the northernmost parts of eight sovereign nations, the United States of America, Canada, Greenland (part of the Kingdom of Denmark), Iceland, Norway, Sweden, Finland and Russia.²⁵ Six of these countries (all except Sweden and Finland) also have territorial waters located off their northern shorelines. About four million people live in the Arctic, many of whom are indigenous people.²⁶ Some people live in large, modern cities such as Tromsø, Norway and Rovaniemi, Finland while others live in tiny, remote communities.²⁷ Many communities in Alaska and Canada, and all of the towns in Greenland, are inaccessible by car, transport is only by plane, boat, dogsled or snowmachine.²⁸ Key industries include fishing, natural resource extraction and tourism but many people rely on subsistence hunting and fishing for survival.²⁹

The Arctic endures long, dark, cold winters and short, cool summers with long periods of daylight. Snow cover is on the ground permanently in some parts of the Arctic and between October and late May or early June in places like Utqiagvik, Alaska.³⁰ On the Arctic Circle, there is only one 24 hour period each year where the sun sets or rises completely but, in reality, there are long periods either side of this where there is almost permanent light in the summer or little more than a few hours of twilight in the winter. In Svalbard at 78°N, however, the light and dark periods last for two and a half months and in the middle of winter it is pitch black at midday.³¹ Winter temperatures in the Arctic can fall as low as -50°C but can also rise above freezing at times, particularly in Norway which is warmed by

²⁴ Sharon Chester, *The Arctic Guide: Wildlife of the Far North* (Princeton University Press 2016) 11.

²⁵ *ibid.*

²⁶ Adrian Howkins, *The Polar Regions: An Environmental History* (John Wiley & Sons 2015) 6; 'Population' <<https://arctic.ru/population/>> accessed 6 August 2019.

²⁷ 'Population' (n 26).

²⁸ Don E Dumond and others, 'Arctic', *Encyclopedia Britannica* <<https://www.britannica.com/place/Arctic>> accessed 5 August 2019.

²⁹ *ibid.*

³⁰ Christopher J Cox and others, 'Drivers and Environmental Responses to the Changing Annual Snow Cycle of Northern Alaska' (2017) 98 *Bulletin of the American Meteorological Society* 2559.

³¹ 'About Svalbard' (*Sysselmannen*, 27 September 2016) <<http://www.sysselmannen.no/en/Toppmeny/About-Svalbard/>> accessed 6 August 2019; 'Climate and Light' (*Sysselmannen*, 18 March 2016) <<http://www.sysselmannen.no/en/Toppmeny/About-Svalbard/Climate-and-light/>> accessed 6 August 2019.

the gulf stream.³² Summer temperatures range from about -10°C to a maximum of about 20°C .³³ Together these factors lead to a harsh winter which few species are sufficiently adapted to survive and an intense summer growth season, particularly for plants.³⁴

There are three main definitions of the Arctic which are used for various different purposes. The first definition is that the Arctic is made up of all land and sea north of the Arctic Circle which is at latitude $66^{\circ}33'50''\text{N}$ although it is constantly moving.³⁵ This is the latitude at which there is at least 24 hours where the centre of the sun does not rise above the horizon during the winter and 24 hours where it does not set below the horizon during the summer.³⁶



Figure 2: Map of the Arctic Circle
Source: Arctic Portal

³² Dumond and others (n 28).

³³ *ibid.*

³⁴ *ibid.*

³⁵ Chester (n 24) 11; Jay Turner, 'Obliquity of the Ecliptic and Nutation in Obliquity and Latitudes of the Arctic/Antarctic Circles' (*PHP Science Programs*, 18 July 2019)

<http://www.neoprogrammics.com/obliquity_of_the_ecliptic/> accessed 18 July 2019.

³⁶ Chester (n 24) 11.

As a result of the fact that this definition provides an easily defined line of reference, this is the definition most frequently used in geo-politics and international relations.³⁷

The second definition of the Arctic is that used by biologists, namely the treeline. This is the line, north of which trees do not grow. The benefit of using such a definition is that the climate, terrain and wildlife of the northern European nations, where trees grow abundantly, and the tundra areas of northern Greenland, Canada, Alaska and Russia are very different. Unlike using the Arctic Circle, using the treeline provides for an Arctic region which is geographically and climatically similar, splitting the permafrost and tundra in the north from the boreal forest further south.³⁸ As the climate warms, the trees are spreading further north and the treeline is therefore moving.³⁹



Figure 3: Map of the Arctic Tree Line
Source: Arctic Portal and Arctic Monitoring and Assessment Programme

³⁷ *ibid.*

³⁸ *ibid.*

³⁹ *ibid.*

The third definition of the Arctic is the area north of the 10°C July isotherm.⁴⁰ This is the line at which the average temperature does not rise above 10°C during July or during the warmest month of the year if this is not July.⁴¹ The isotherm broadly matches the treeline because in places where the summer is warmer, there is less permafrost and species of tree can survive. Like the treeline, the 10°C July isotherm defines an Arctic region which is more homogenous in terms of terrain, climate and species but it excludes almost all of northern Europe and quite large parts of Russia.



Figure 4: Map of the 10°C July Isotherm
Source: Arctic Portal and Arctic Monitoring and Assessment Programme

In this thesis, the definition used for the Arctic is the Arctic Circle. This is simply for ease because it is the only definition which has a set latitude. This is important, particularly in relation to selecting case studies because while it is usually possible to tell if the factual matrix of a case took place north of a particular latitude, it is much more difficult to tell if it took place north of the treeline or the 10°C July isotherm.

⁴⁰ *ibid.*

⁴¹ *ibid.*

1.6. International Legal Regimes in the Arctic

This thesis is concerned with the domestic legal systems of the European and North American Arctic nations. As well as domestic law, however, there is also a body of international law which affects the Arctic and governs the behaviour of those sovereign nations. There are a number of treaties and agreements aimed at coordinating global or regional approaches to environmental law. The key agreements, treaties and institutions which are relevant to endangered species protection are briefly outlined below. International law influences national law but it does not create binding legal norms on the domestic scale and as this thesis is concerned with domestic legal systems, the international legal regime is not considered in any detail. It is useful, however, to be aware of some of the key the international law and institutions which operate in this field, including, inter alia, the United Nations Convention on the Law of the Sea, the United Nations Convention on Biological Diversity, the Arctic Council, the Convention on the Conservation of European Wildlife and Natural Habitats, the Agreement on the Conservation of Polar Bears, the Convention on the International Trade in Endangered Species of Wild Fauna and Flora, the International Convention for the Regulation of Whaling, the Convention on the Conservation of Migratory Species of Wild Animals and the Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat. Brief overviews of these can be found in appendix G to this thesis.

1.7. Do We Need Biodiversity?

Before beginning a study of the ways in which biodiversity in the Arctic can be protected, it is worth considering the reasons for biodiversity protection. Biodiversity, meaning the variety of plant and animal species within a particular ecosystem, across a region or around the world, is increasingly under threat from the behaviour of mankind. A recent report by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services predicted a devastating global loss of biodiversity in the coming decades with a reduction of species of around 20% in most 'land-based habitats' since 1990 and around 1 million species threatened with extinction.⁴² Robert Watson, chair of the Platform lamented that

⁴² Sandra Díaz, Josef Settele and Eduardo Brondizio, *Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services Global Assessment - Summary for Policymakers* (Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services 2019); 'UN Report: Nature's Dangerous Decline "Unprecedented"; Species Extinction Rates "Accelerating"' (*United Nations Sustainable Development*, 6 May 2019) <<https://www.un.org/sustainabledevelopment/blog/2019/05/nature-decline-unprecedented-report>> accessed 2 August 2019.

‘[w]e are eroding the very foundations of our economies, livelihoods, food security, health and quality of life worldwide’.⁴³ The most recent assessment of biodiversity in the Arctic found that climate change and other human activities such as ‘human habitation, overharvest, industrial and agricultural activities, anthropogenic contaminants, altered food webs, and the introduction of invasive species’ are threatening Arctic species, with warming temperatures leading to the northwards movement of invasive species such as the red fox which threatens the Arctic fox, the destruction of sea ice habitats threatening polar bears, walruses and ice seals, and increased levels of ice reducing feeding opportunities for caribou and muskox.⁴⁴

Given the scale of the threat to biodiversity is easy to say that all species should be conserved, at any cost, without examining this assertion to ensure that there are sound policy reasons behind it and that it is not merely based on emotion. In his book, ‘Do We Need Pandas?’, Thompson argues that we may not need to conserve all species.⁴⁵ There have been many species which have become extinct over the years and almost none of these extinctions have had a detrimental impact on the ability of the planet to sustain itself.⁴⁶ Discussing a planned campaign by Birdlife International to protect almost 200 of the most endangered species of bird, Thompson describes it as ‘a thoroughly worthwhile and praiseworthy campaign, yet you will look in vain for any suggestion that the world will end, or even that anything noticeable will happen, if we do lose all these birds’.⁴⁷ He points out that these birds are already so endangered and therefore so few in number that they play almost no functional role in any ecosystem and so their loss would have limited impact.⁴⁸ Thompson’s argument (although he does also argue for the value of protecting wildlife) is that protecting individual species, particularly species which have already become removed from providing a function within an ecosystem, is to miss the point that it is better to conserve entire ecosystems and to allow rare and ‘charismatic’ species to ‘look after themselves’.⁴⁹ While flora and fauna are vital to the construction of ecosystems in the first

⁴³ ‘UN Report: Nature’s Dangerous Decline “Unprecedented”; Species Extinction Rates “Accelerating”’ (n 42).

⁴⁴ Hans Meltote (ed), *Arctic Biodiversity Assessment 2013: Status and Trends in Arctic Biodiversity* (Conservation of Arctic Flora and Fauna and Arctic Council 2013) 41.

⁴⁵ Ken Thompson, *Do We Need Pandas? The Uncomfortable Truth About Biodiversity* (1st edition, Green Books 2010) 99.

⁴⁶ *ibid.*

⁴⁷ *ibid* 111–112.

⁴⁸ *ibid* 112.

⁴⁹ *ibid* 142–145.

place but specific individual species may not be that important to the overall functioning of the environment, nor to the value that the environment has for humans, such as in the provision of ecosystem services like pollination, oxygen production, ecotourism, climate regulation, removal of pollutants and many more.⁵⁰

Thompson's argument is deliberately provocative and he acknowledges that there are other arguments for the protection of wildlife species at an individual level as well as an ecosystem level.⁵¹ Firstly, while Thompson may be right that the loss of a single species will not have an impact on the planet, but eventually the loss of more and more species will cause other consequences such as reduction in food production from lack of pollination or increased levels of flooding or erosion. Secondly, biodiversity in general and species in themselves play an important role in many aspects of life. The preamble to the Convention on Biological Diversity (see appendix G.2 below) explains that biodiversity has an 'intrinsic value' and that biological diversity brings with it 'ecological, genetic, social, economic, scientific, educational, cultural, recreational and aesthetic values'.⁵² The convention also makes clear that biodiversity is important for 'maintaining life sustaining systems of the biosphere'.⁵³ These are mostly anthropogenic values, however, which tend to lead to protection of populations for the benefit of humans. The United Nations World Charter for Nature called for an approach to wildlife protection which acknowledges that '[e]very form of life is unique, warranting respect regardless of its worth to man, and, to accord other organisms such recognition, man must be guided by a moral code of action' and in the United Kingdom, a 2007 government research paper argued against policies which 'treat nature as if it had been designed for our convenience and abuse'.⁵⁴ This is the moral argument for biodiversity and species protection – that the natural world does not exist for people to use and destroy, and that where human behaviour has caused or is causing harm, action should be taken to ameliorate that harm, particularly where it involves other living species.

⁵⁰ *ibid* 58–61, 117.

⁵¹ *ibid* 144.

⁵² United Nations Convention on Biological Diversity (adopted 14 June 1992, entered into force 29 December 1993) (1992) 31 *International Legal Materials* 818, preamble.

⁵³ *ibid*, preamble.

⁵⁴ United Nations General Assembly, Resolution 37/7 'World Charter for Nature' (28 October 1982) A/RES/37/7; United Kingdom Biodiversity Partnership, *Conserving Biodiversity: The UK Approach* (United Kingdom Department for Environment, Food and Rural Affairs 2007); Stuart Bell and others, *Environmental Law* (Ninth Edition, Oxford University Press 2017) 704–705.

1.8. Climate Change

One of the key environmental threats to the Arctic and to the species which live in the Arctic is climate change and it is therefore worth considering, at this stage, the scale of the threat of climate change to the Arctic species and ecosystems. Over the past two decades significant research has been undertaken into the existence of climate change within the Arctic region and it demonstrates that the Arctic is warming faster than any other region on the planet. In 2004, the Arctic Climate Impact Assessment was published.⁵⁵ This report, building on the work of an assessment in 1997/98, examined the impact of climate change specifically on the Arctic.⁵⁶ It found that average temperatures in the Arctic had risen at twice the rate of temperatures in the rest of the world.⁵⁷ Both the Intergovernmental Panel on Climate Change's Fourth and Fifth Assessment Reports, published 2007 and 2014 found that 'warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice and rising global average sea level'.⁵⁸ The reports concluded that global warming is 'very likely' to be caused by human activity with 'very likely' defined as more than 90% probability.⁵⁹

The Arctic Council's Arctic Monitoring and Assessment Programme was responsible for the Snow, Water, Ice and Permafrost in the Arctic assessment which was carried out in 2011 and published the following year.⁶⁰ The report, known as SWIPA, was a follow on from the work done by the Arctic Climate Impact Assessment.⁶¹ SWIPA found that 'the observed changes in sea ice on the Arctic Ocean and in the mass of the Greenland ice sheet and Arctic ice caps and glaciers over the past ten years are dramatic and represent an

⁵⁵ Caroline Symon, Lelani Arris and Bill Heal, *Arctic Climate Impact Assessment* (Cambridge University Press 2005).

⁵⁶ *ibid.*

⁵⁷ *ibid.*

⁵⁸ Core Writing Team, Rajendra K Pachauri and Andy Reisinger (eds), 'Climate Change 2007: Synthesis Report', *Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (Intergovernmental Panel on Climate Change 2007) para 6.1; Core Writing Team, Rajendra K Pachauri and Leo Meyer, *Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (Intergovernmental Panel on Climate Change 2014).

⁵⁹ Core Writing Team, Pachauri and Reisinger (n 58) 26–27.

⁶⁰ *Snow, Water, Ice and Permafrost in the Arctic (SWIPA): Climate Change and the Cryosphere* (Arctic Monitoring and Assessment Programme 2011).

⁶¹ Symon, Arris and Heal (n 55).

obvious departure from long term patterns'.⁶² Evidence showed that 'Arctic summer temperatures have been higher in the past few decades than at any time in the past 2000 years'.⁶³ Two of the key findings were that the Arctic has been warming faster since 2000 than it did in the decade leading up to the year 2000 and that the predictions made in 2007 by the Intergovernmental Panel on Climate Change 'underestimated the rates of change now observed in sea ice'.⁶⁴ The assessment predicted that the Arctic Ocean will become free from ice during the summer within the next thirty to forty years with snow lying on the ground for 10-20% less of each year due to an earlier spring thaw.⁶⁵ While some animals, the report cites the pink footed goose as one example, may thrive in a warmer Arctic climate, many others will suffer from a reduction in their ability to obtain food or from a depletion of their natural habitat.⁶⁶ Off shore it is predicted that the decrease in sea ice will lead to 'increased shipping and industrial activity'.⁶⁷ On shore, somewhat counter-intuitively, a shortened winter will make everyday life harder. For those accustomed to the Arctic, winter can be easier; frozen ground allows for travel between villages which become cut off by water in the summer.⁶⁸ Meanwhile, heavy industry relies on ice roads to transport goods across the delicate Arctic tundra without causing damage.⁶⁹ If the season during which it is possible to build ice roads gets shorter this will increase the need to permanent roads which would be much more damaging to the tundra than the ice roads. Changes in the Arctic also have a global impact with melting ice caps causing sea levels to rise and melting permafrost emitting methane and carbon dioxide, both known greenhouse gases.⁷⁰ SWIPA concluded that adaptation is 'urgent and needed' for the Arctic residents and that 'deep and immediate cuts in global greenhouse gas emissions are required'.⁷¹ In 2009 the Arctic Council issued the Tromsø Declaration which said that it regarded 'human induced global climate change [to be] one of the greatest challenges facing the Arctic' and that it was 'deeply concerned by the escalating rate of warming of the Arctic climate, which will likely also affect the rest of the world'.⁷²

⁶² *Snow, Water, Ice and Permafrost in the Arctic (SWIPA): Climate Change and the Cryosphere* (n 60) 3.

⁶³ *ibid* 4.

⁶⁴ *ibid* 6.

⁶⁵ *ibid* 7.

⁶⁶ *ibid* 8.

⁶⁷ *ibid*.

⁶⁸ *ibid*.

⁶⁹ *ibid*.

⁷⁰ *ibid* 11.

⁷¹ *ibid* 12.

⁷² Tromsø Declaration on the Occasion of the Sixth Ministerial Meeting of the Arctic Council, 29 April 2009.

In recent years, climate observations and predictions in relation to the Arctic have become even more alarming. An updated SWIPA report was published in 2017 and a further short update in 2019.⁷³ The 2017 report found that the climate of the Arctic is shifting dramatically.⁷⁴ In the years between the 2011 report and the 2017 report, measurements of sea ice thickness, sea ice cover, land ice volume, spring snow cover and annual length of snow cover had all fallen, with the Arctic becoming warmer and wetter during that time.⁷⁵ Temperatures in the Arctic are rising at about twice the rate of the rest of the world, and recent years have been some of the warmest on record with October to December averaging 6°C higher than the average from 1981 to 2010.⁷⁶ Sea ice thickness is declining and most of the thick multi-year ice has melted leaving only new ice each winter.⁷⁷ It is predicted that the Arctic Ocean will be free of ice in the summer by the late 2030s.⁷⁸ On land, permafrost temperatures have risen by 0.5°C and the depth of ground that melts during the summer is deepening.⁷⁹ All of this is causing significant changes in Arctic ecosystems. Sea ice habitats are melting threatening marine mammals such as seals, walrus and polar bears, winter rainfall is causing ice cover of plants vital to the survival of caribou and muskox, the tree line is moving north and, while in some areas of the Arctic plants are becoming more productive, in others there is considerable ‘browning’ of the earth showing a decrease in plant life.⁸⁰ Migration patterns, predator and prey interactions and the types of species found in the Arctic are all changing.⁸¹ The 2019 update brought equally bad news. Air temperatures, sea temperatures and surface temperatures continue to rise and rain levels are increasing while ice extent and snow cover are decreasing.⁸² Even in the days before this thesis was completed, news came that July 2019 was the warmest month in global history, there are widespread fires burning across the Arctic and a heatwave at the end of July and the start of August 2019 saw the Greenland ice sheet lose 12.5 billion tonnes

⁷³ *Snow, Water, Ice and Permafrost in the Arctic (SWIPA)* (Arctic Monitoring and Assessment Programme 2017); *Climate Change Update 2019: An Update to Key Findings of Snow, Water, Ice and Permafrost in the Arctic (SWIPA) 2017* (Arctic Monitoring and Assessment Programme 2019).

⁷⁴ *Snow, Water, Ice and Permafrost in the Arctic (SWIPA): Summary for Policymakers* (n 4) 3.

⁷⁵ *ibid.*

⁷⁶ *ibid.*

⁷⁷ *ibid* 4.

⁷⁸ *ibid* 3, 5.

⁷⁹ *ibid* 4.

⁸⁰ *ibid* 5.

⁸¹ *ibid.*

⁸² *Climate Change Update 2019: An Update to Key Findings of Snow, Water, Ice and Permafrost in the Arctic (SWIPA) 2017* (n 73) 4–7.

of ice to meltwater in a single day, with 197 gigatonnes (197 billion tonnes or 197 km³) lost in July.⁸³ Climate change in the Arctic is real, has anthropogenic causes and will have a devastating impact on species of plants and animals which have previously thrived in its harsh, cold environment.

1.9. Definitions

There are some terms which are used in this thesis which deserve either some explanation or definition. A number of these are provided below. Other terms are defined or explained throughout the thesis and those definitions or explanations are not repeated here.

1.9.1. Endangered Species Protection

This thesis is about species protection in the Arctic. At times the term ‘endangered species’ is used, or ‘endangered and threatened species’. The terms are not intended to be exclusive. Given the threats to the Arctic most, if not all, species are threatened or endangered at some level, not just those which are formally listed as such. Therefore, unless the context indicates otherwise, such as when discussing a particular legal regime which uses the terms specifically to mean those species which are listed as endangered or threatened, the term endangered species or endangered and threatened species should be read as including all Arctic species.

1.9.2. Indigenous People

The names used for communities and people groups which lived in the Arctic prior to the arrival of colonial settlers can be controversial. Many terms are now, rightly, considered to be demeaning or offensive, although this differs between countries and cultures. Traditionally the word ‘Eskimo’ was used to refer to Arctic tribes but this is now considered

⁸³ ‘July Was Hottest Month Ever Recorded on Earth, Preliminary Data Shows’ (*The Independent*, 2 August 2019) <<https://www.independent.co.uk/environment/july-weather-hottest-month-ever-climate-change-heatwave-global-warming-wmo-a9035356.html>> accessed 3 August 2019; ‘The Arctic Is Ablaze’ [2019] *The Economist* <<https://www.economist.com/europe/2019/08/01/the-arctic-is-ablaze>> accessed 3 August 2019; Jason Samenow and Andrew Freedman, ‘Images Show Staggering Extent of Melting on Greenland Ice Sheet Because of Heat Wave’ *Washington Post* (2 August 2019) <<https://www.washingtonpost.com/weather/2019/08/02/images-show-staggering-extent-melting-greenland-ice-sheet-due-heat-wave/>> accessed 5 August 2019; Jonathan Watts, ‘Heatwaves Amplify Near-Record Levels of Ice Melt in Northern Hemisphere’ *The Guardian* (2 August 2019) <<https://www.theguardian.com/environment/2019/aug/02/heatwaves-amplify-near-record-levels-of-ice-melt-in-northern-hemisphere>> accessed 5 August 2019; ‘Surface Conditions: Polar Portal’ <<http://polarportal.dk/en/greenland/surface-conditions/>> accessed 5 August 2019.

to be pejorative in Canada and in Greenland where the words ‘Inuit’ (singular Inuk) and ‘Kalaallit’ are used respectively instead.⁸⁴ The Charter of the Inuit Circumpolar Council recommends using the term Inuit.⁸⁵ In Alaska, however, the word ‘Eskimo’ is still in use, in part because the Arctic tribes in Alaska are Yu’pik and Iñupiat (singular Iñupiaq) rather than being Inuit, although the name Alaska Native is used more frequently than Eskimo.⁸⁶ Alaska Native is the phrase used to define the indigenous people in Alaska under the Alaska Native Claims Settlement Act 1971 (see appendix A.1 below).⁸⁷ In Canada, the word ‘Aboriginal’ is sometimes seen but rarely, if ever, in the other Arctic countries.⁸⁸ The native people of the Nordic countries are not Inuit either. Instead, the people who have lived in the Arctic regions since before the nation states were established are the Sámi people.⁸⁹ Sámi people were traditionally called ‘Laplanders’ or ‘Lapps’ but these are now considered to be derogatory and are not used.⁹⁰ The Sámi nation, traditionally nomadic, is now split across Norway, Sweden, Finland and eastern Russia.⁹¹

In order to prevent confusion with a range of different terms, some of which are acceptable in one country but not in another, the term ‘indigenous people’ is used throughout this thesis except where a more specific term is more appropriate. The Indigenous and Tribal Peoples Convention, 1989 (ILO Convention No 169) defines ‘indigenous people’ as those who:

‘on account of their descent from the populations which inhabited the country, or a geographical region to which the country belongs, at the time of conquest or colonisation or the establishment of present state boundaries and who, irrespective of their legal status, retain some or all of their own social, economic, cultural and political institutions’.⁹²

⁸⁴ Lawrence Kaplan, ‘Inuit or Eskimo: Which Name to Use?’ (*Alaska Native Language Center*) <https://www.uaf.edu/anlc/resources/inuit_or_eskimo.php> accessed 17 July 2019.

⁸⁵ Charter of the Inuit Circumpolar Council, signed at Barrow, Alaska on 15 June 1977, Article 1(6).

⁸⁶ Kaplan (n 84).

⁸⁷ Alaska Native Claims Settlement Act of 1971 (USC).

⁸⁸ ‘Indigenous Peoples and Communities’ (*Government of Canada*, 12 January 2009) <<https://www.rcaanc-cirnac.gc.ca/eng/1100100013785/1529102490303>> accessed 17 July 2019.

⁸⁹ Deborah B Robinson, *The Sámi of Northern Europe* (Lerner Publications 2002) 5.

⁹⁰ *ibid.*

⁹¹ *ibid.*

⁹² Convention Concerning Indigenous and Tribal Peoples in Independent Countries, International Labour Organization Convention Number 169 (adopted at Geneva on 27 June 1989, entered into force 5 September 1991).

The term therefore provides an accepted collective noun which applies to all of the tribes, communities and people groups who have lived in the Arctic since before the colonisation and is the term which has been chosen to describe them collectively, where necessary. The occasions when this is not the case are when referring to an individual or small group of tribes specifically is possible or where a term is being quoted directly from another source such as a statute or regulation.

1.9.3. Use of Foreign Words

Where possible, the names of laws, institutions and places are given in the language of the country from which they come, either in the text or in the footnotes, or both. As far as possible the indigenous name is given, either instead of, or alongside, a name in a non-indigenous language but it was not always feasible to include this.

1.9.4. Wildlife

The term 'wildlife' is used throughout this thesis. Unless it is being used in the context of a specific legal system which defines it otherwise (in which case this will be made clear), the term is intended to include all wild flora and fauna. It does not include domesticated animals and animals used or herded for agricultural purposes, such as herded reindeer. In this thesis, the term also excludes fish as they have completely separate protection regimes which have not been included in this study.

2. Comparative Law as a Method of Legal Research

There are more legal jurisdictions than there are countries in the world, each jurisdiction with its own approach to solving the varied challenges which societies face.⁹³ In this study alone there are six countries, ten (or arguably eleven) jurisdictions and twelve different systems of protecting endangered species. Some countries approach endangered species protection in ways which are similar to each other, others solve the same problem in a different. Comparative law is a method which lawyers can use to undertake research about the legal systems of different countries and to compare and contrast the results. Using comparative law as a methodology can lead to the discovery of new means of solving a legal problem and can result in the researcher being able to make suggestions that can lead to practical improvements in a country's laws.⁹⁴

2.1. A Brief History of Comparative Law

One of the earliest recorded comparative law projects is Aristotle's impressive collection of Greek city state constitutions.⁹⁵ In the fourth century BC, Aristotle collected over 150 constitutions which he studied in his quest to draft a model constitution. He also oversaw a, sadly now lost, comparison between the different customs of the Greeks, the Romans and the barbarians and appeared to use methods of empirical comparative study in his book on political theory, *Politik*.⁹⁶ Despite having an illustrious early proponent however, comparative law cannot truly be traced back to Aristotle. Donahue argues that much of Aristotle's work is really comparative government and that as the work was lost, 'there is no continuity between the Aristotelian effort and later efforts at comparative law'.⁹⁷ Even if Aristotle did make some attempts at comparative law, any methods that he used had to be 'rediscovered' or reinvented by academics in subsequent centuries.⁹⁸

⁹³ Kamba (n 23) 501.

⁹⁴ Harold Cooke Gutteridge, *Comparative Law: An Introduction to the Comparative Method of Legal Study and Research* (Cambridge University Press 1946) 3.

⁹⁵ Peter de Cruz, *Comparative Law in a Changing World* (3rd edn, Routledge Cavendish 2007) x.

⁹⁶ Charles Donahue, 'Comparative Law Before the Code Napoleon' in Mathias Reimann and Reinhard Zimmerman (eds), *The Oxford Handbook of Comparative Law* (Oxford University Press 2006) 4; Aristotle, *Politics* (Benjamin Jowett tr, first published 350 BC, Batoche Books 1999).

⁹⁷ Donahue (n 96) 4–5.

⁹⁸ *ibid* 5.

The Roman Empire had little to no interest in foreign law, being certain of their own superiority over any other country or jurisdiction and by the Middle Ages, any notion of the consideration of foreign laws would have merely meant having recourse to Roman law.⁹⁹ The ‘all-pervasive’ nature of both the Roman Empire and Roman law coupled with the way in which English lawyers jealously guarded the common law system from the influence of civil law systems meant that there was little need for comparisons to take place between different legal systems.¹⁰⁰ Although Leibnitz proposed drafting a comparison of all of the laws of the ‘civilised world’ as early as 1667, he never carried out the work.¹⁰¹ It was not until the eighteenth century that writers such as Vico and Montesquieu began to think about studying the different legal principles and legal institutions found in different countries and, noticeably, in a much wider geographical range than had ever been attempted before.¹⁰² It was Montesquieu who was the first to recognise that legal principles should be analysed against the cultural and historical background of the legal system in which that law operates.¹⁰³ This approach enabled him to begin a review of the world’s legal systems in a scientific manner, leading to the publication of *De L’Esprit des Loix* in 1748.¹⁰⁴ Montesquieu is often cited as the ‘founder of comparative law’: Donahue credits his work as ‘employ[ing] something very close to, if it is not the same thing as, modern comparative method’ and even goes so far as to describe Montesquieu as ‘the ancestor of virtually every comparative lawyer today’.¹⁰⁵ The text is, however, not without its critics; Gutteridge describes it as ‘disconnected, unsystematic and marred by eccentricities’ and even Donahue criticises Montesquieu because some of the data taken from ‘travellers’ accounts’ and then used in the analysis was ‘clearly just wrong’.¹⁰⁶ While Montesquieu may have reported some facts or made assumptions that sound absurd to modern ears, his work demonstrated that he was beginning to explore the concepts of comparative law in a way that had not been done before.

⁹⁹ Gutteridge (n 94) 11; Konrad Zweigert and Hein Kötz, *An Introduction to Comparative Law* (Tony Weir tr, 3rd edn, Oxford University Press 1998) 49.

¹⁰⁰ Harold Dexter Hazeltine, ‘The Renaissance and the Laws of Europe’ in Percy Henry Winfield and Arnold Duncan McNair (eds), *Cambridge Legal Essays* (W Heffer & Sons 1926) 144; Gutteridge (n 94) 11–12.

¹⁰¹ Gutteridge (n 94) 12.

¹⁰² *ibid.*

¹⁰³ *ibid.*

¹⁰⁴ Montesquieu, *De L’Esprit Des Loix* (Barrillot & Fils 1748).

¹⁰⁵ Gutteridge (n 94) 12; Donahue (n 96) 28.

¹⁰⁶ Gutteridge (n 94) 12; Donahue (n 96) 26.

The nineteenth century, with its assumption that law ‘proceeds from the common consciousness of a nation’ led to a stalling of the progress of comparative law and it was only in the mid-nineteenth century that anything approaching modern comparative law was carried out.¹⁰⁷ By the end of the century, however, the English Society of Comparative Lawyers had been established, journals and annuals on the subject were being published and comparative law had become accepted as a recognised branch of legal study.¹⁰⁸

It was during the twentieth century that comparative law really developed as an academic discipline and this led to some radical changes in the way academics viewed the purpose and aim of comparative law. Throughout the twentieth century, there was a noticeable shift away from the writings of the previous generations of comparative lawyers who generally sought to discover a common basis for law. Harold Gutteridge, described as the ‘doyen of English comparative lawyers’ and the author of the first book on comparative law in England, favoured the unification of laws through comparative study of different legal systems.¹⁰⁹ In his book, published in 1946, he devoted considerable space to discussing the unification of legal systems giving examples such as the unification of maritime law or the unification of laws among the states of the United States of America.¹¹⁰ Gutteridge, however, unlike the earlier lawyers acknowledged that ‘no one would wish to see the legal systems of the world reduced to the same dead level; all civilised nations have derived a precious heritage from the past in their legal traditions’.¹¹¹ He was, though, a proponent of unification as ‘an effective force in the promotion of a better understanding between the nations and the removal of sources of international friction and commercial insecurity’.¹¹² After Gutteridge, however, there was a reorientation away from unification as the purpose of comparative law and towards the ‘second stage’ of comparative law where the purpose was to compare different approaches to the same problem in order to discover new answers to that problem.¹¹³

¹⁰⁷ Gutteridge (n 94) 12; Donahue (n 96) 26.

¹⁰⁸ Gutteridge (n 94) 12; Donahue (n 96) 26.

¹⁰⁹ John W Cairns, ‘Comparative Law in Britain’ in Mathias Reimann and Reinhard Zimmermann (eds), *The Oxford Handbook of Comparative Law* (Oxford University Press 2006) 141–144; Ben Atkinson Wortley, ‘Review’ (1947) 23 *International Affairs* 396.

¹¹⁰ Gutteridge (n 94) ch 12.

¹¹¹ *ibid* 156–157.

¹¹² *ibid* 157.

¹¹³ Zweigert and Kötz (n 99) 61.

In the post war period, much work was done on the methodologies of comparative law. In 1966 Otto Kahn Freund argued that comparative law should be undertaken using the functional method, focusing not on the specific wording of legal rules but on the role that the rules play within the legal system.¹¹⁴ Zweigert and Kötz, two German lawyers who wrote what is now considered to be one of the leading texts on comparative law, argued that the only method of comparative law was the functional method: ‘the basic methodological principal of all comparative law is that of functionality’.¹¹⁵ Their book was published in Germany in 1971 and was swiftly translated into English by Tony Weir.¹¹⁶ They argued that this method allowed legal research to take on the attributes of ‘scientific exactitude and objectivity’ even when legal systems appear to be ‘apparently peculiar and incomparable’.¹¹⁷ Another methodology of comparative law was proposed in 1974 by Alan Watson.¹¹⁸ Watson’s theory of legal transplants focused on the histories of legal jurisdictions and considered the ways in which each had borrowed from the other.¹¹⁹ Watson’s ideas were criticised when first published although they were subject of somewhat heated debate between Watson and Pierre Legrand in the late 1990s.¹²⁰ Other types of comparative law undertaken in the twentieth century included studies looking at cultural characteristics of legal systems and works of a more narrative style such as Inga Markovits’ *Imperfect Justice*, about the end of socialist law in East Germany and the comparison with West German law.¹²¹

Comparative law is still sometimes criticised for not being a coherent academic discipline (see 2.3 below). This is partly because of its many limitations (see 2.7 below) and partly because it still lacks a single agreed methodology. Despite this, it has proved to be an important method of study over the last century giving insights into legal systems that

¹¹⁴ Otto Kahn-Freund, ‘Comparative Law as an Academic Subject’ (1966) 82 *Law Quarterly Review* 40.

¹¹⁵ Zweigert and Kötz (n 99) 34; Ralf Michaels, ‘The Functional Method of Comparative Law’ in Mathias Reimann and Reinhard Zimmermann (eds), *The Oxford Handbook of Comparative Law* (Oxford University Press 2006) 343.

¹¹⁶ Konrad Zweigert and Hein Kötz, *Einführung in Die Rechtsvergleichung* (Mohr 1971); Zweigert and Kötz (n 99).

¹¹⁷ Zweigert and Kötz (n 99) 45.

¹¹⁸ Alan Watson, *Legal Transplants: An Approach to Comparative Law* (Scottish Academic Press 1974).

¹¹⁹ *ibid.*

¹²⁰ Alan Watson, ‘Legal Transplants and European Private Law’ (2000) 4.4 *Electronic Journal of Comparative Law* Article 2; Pierre Legrand, ‘The Impossibility of “Legal Transplants”’ (1997) 4 *Maastricht Journal of European and Comparative Law* 111.

¹²¹ Mathias Reimann, ‘The Progress and Failure of Comparative Law in the Second Half of the Twentieth Century’ (2002) 50 *The American Journal of Comparative Law* 671, 674; Inga Markovits, *Imperfect Justice* (Oxford University Press 1995).

would not otherwise have been possible. In the coming years comparative law is likely to maintain its importance and this should result in an increase in its depth and cohesion as an academic discipline.

2.2. What is Comparative Law?

The term comparative law is, in many ways, misleading.¹²² Normally the word ‘law’ is used to describe a body of rules which deal with a similar subject matter and are therefore capable of being categorised together. From the very first days of legal study, students are used to classifying law into different specialities such as criminal law or public law, contract law or land law. When a lawyer speaks of, say, employment law, they are talking about the body of rules which govern behaviour in the area of employment. Comparative law is not like this. There is no single set of rules or laws which together form comparative law and which regulate society or individuals in some particular area of life. Instead, comparative law is a method of legal research. Rather than being a category of rules and regulations, it is tool by which the researcher can learn more about the way different countries and different legal systems approach legal problems and the laws they have imposed to solve those problems.

The purpose and value of comparative law has long been debated. Gutteridge found that there are a number of schools of thought as to the purpose of comparative law. First, that the purpose of comparative law is to study the laws of foreign nations. John Henry Wigmore referred to the study of a foreign legal system in order to produce an accurate description as comparative nomoscopy.¹²³ He considered this to have value in itself because it ‘furnishes most of the materials for’ the other types of comparative legal study.¹²⁴ Comparatists must be careful, however, to ensure that they are not merely describing the foreign law without carrying out any comparison. Zweigert and Kötz are clear that the ‘mere study of foreign law falls short of being comparative law’.¹²⁵ Likewise Kamba wrote that ‘surely comparison implies the existence of two or more entities. An entity cannot be compared with itself’ and he specifically said that Gutteridge’s ‘descriptive comparative

¹²² Gutteridge (n 94) 1–2.

¹²³ John Henry Wigmore, ‘A New Way of Teaching Comparative Law’ [1926] *Journal of the Society of Public Teachers of Law* 6.

¹²⁴ *ibid* 6.

¹²⁵ Zweigert and Kötz (n 99) 6.

law...should not be regarded as comparative law'.¹²⁶ This must be correct; in order for work to be classed as comparative law there should be some element of comparison and it is not possible to compare one legal system without having a second comparator. Gutteridge found that for many scholars, the value of the comparison was found in using the knowledge gained in order 'to good account in the reform and development of the law'.¹²⁷ Wigmore called this process of analysing the 'policies and relative merits of different legal institutions...with a view to moulding legislation' comparative nomothetics.¹²⁸ Maine was a proponent of this theory and he argued that that the main purpose of comparative law was 'to facilitate legislation and the practical improvement of the law'.¹²⁹ By studying and comparing the approaches of two legal systems, it is possible for the comparatist to make suggestions for changes and enhancements to the law in one (or both) of the countries being studied because the approach of one legal system can provide new ideas and methods not previously considered or attempted in the other jurisdiction.

The second theory of the purpose of comparative law as identified by Gutteridge was that the value of comparative law is merely historical because and it is used to explain how systems of law develop in their early stages.¹³⁰ Wigmore called the study of how legal systems develop in relation to each other comparative nomogenetics.¹³¹ He argued that the 'tracing of the evolution of specific rules and institutions' enables the comparative lawyer to answer questions about the development of law within a society.¹³² The research shows whether law is a 'bye-product of social-political life' or whether it is itself an 'essential function' of that life.¹³³ It also tells us about whether laws are generic across people groups or specific to certain populations and whether, if a nation or people group disappears, their laws remain and in what capacity.¹³⁴ Clearly these are fascinating questions and the answers can have an huge impact on how lawyers and academics view their subject and on the assumptions that are made about societies and their legal systems.

¹²⁶ Kamba (n 23) 512.

¹²⁷ Gutteridge (n 94) 18.

¹²⁸ Wigmore (n 123) 6.

¹²⁹ Henry Sumner Maine, *Village Communities in the East and West* (John Murray 1871) 4.

¹³⁰ Gutteridge (n 94) 18.

¹³¹ Wigmore (n 123) 6.

¹³² *ibid* 8.

¹³³ *ibid*.

¹³⁴ *ibid*.

The third theory that Gutteridge identified was that the purpose of comparative law is to discover the ‘abstract notions which underlie all systems of law’.¹³⁵ Doing this enables the construction of a common legal philosophy across the world and is a similar approach to that taken by Gaius in the second century AD. For many proponents of this theory, the end result is a unified, universal legal system. In the definition of comparative law used by *Vocabulaire Juridique*, the argument is made that the only purpose of comparative law is to study different legal systems in order make changes which will establish greater international uniformity across jurisdictions and closer relations between different countries.¹³⁶ Another version of this theory is that there is a body of natural law with a level of commonality shared by all legal systems but that the detail to be found in each country is different.¹³⁷ Gutteridge calls this ‘natural law with variable content’ and it was a popular theory at the 1900 Congress of Comparative Law.¹³⁸

Walter Kamba defined the purpose of comparative law in terms of the final use to which the research will be put. This is a convenient way of thinking about comparative law because, as Schmitthoff said, ‘no lawyer would embark on a comparative legal study without intending that his endeavours should be utilised either by him or by others’.¹³⁹ Kamba identified at least six categories of uses for comparative law including academic studies, law reform and the harmonisation of laws. Comparative law can provide great depth to academic legal studies as, while it obviously gives a student knowledge and understanding of another legal system and legal culture, it can also assist the student to obtain deeper insight into his or her own legal system by contrast with the foreign legal system.¹⁴⁰ In relation to law reform comparative law can have a huge impact. A comparative lawyer can study and explore the different approaches to the same question with the objective of discovering a novel way of resolving a problem which could be used to develop or improve the law within another jurisdiction. Comparative law is important in the process of the harmonisation of laws across nations, regions or the international

¹³⁵ Gutteridge (n 94) 18.

¹³⁶ *ibid* 3.

¹³⁷ *ibid* 18.

¹³⁸ *ibid*.

¹³⁹ Clive Maximilian Schmitthoff, ‘The Science of Comparative Law’ (1939) 7(1) *The Cambridge Law Journal* 94, 99.

¹⁴⁰ Kamba (n 23) 493.

community. Without the initial research demonstrating the starting position in each legal system, it would be difficult to reach an agreement to harmonise laws in any specific sphere; Kamba calls comparison an ‘indispensable pre-requisite’.¹⁴¹ Comparative law is important in these areas as well as a number of others identified by Kamba.¹⁴² Distinguishing between the different possible objectives of the comparative lawyer can be useful as it enables a researcher to determine the methods to be used and the comparators to be selected by considering the desired outcome. The identification of the final use of the research is one effective way of defining the purpose of comparative law.¹⁴³

As has been seen, there are many different theories about the purpose of comparative law. Perhaps, however, Ernst Rabel was right when he said that ‘comparative law has as many different aims as legal science itself: it would be impossible to enumerate them, and we need not attempt it’.¹⁴⁴ Although Gutteridge explained the various theories that he had identified regarding the purpose of comparative law, his personal opinion was that such distinctions were unhelpful given the wide variety of purposes for which comparative law can be used.¹⁴⁵ He wrote that ‘if the comparative process is to meet with success, it is eminently desirable, if not essential, that its employment should not be hampered by confining it to specific categories’.¹⁴⁶

What is more important is that any comparative research that is undertaken is done with a solid theoretical background and is not undertaken in a haphazard manner as this can render the research useless. Kamba explained that ‘comparative law is the *systematic application* of the comparative technique to the field of law’.¹⁴⁷ The precise techniques of comparison change depending on the level at which and the purpose for which the research is being undertaken. Whichever techniques are used though, the key to ensuring useful, accurate and valuable comparative research is the implementation of a systematic methodology, one which both fulfils the purpose of the research (for example, assisting with the promotion of

¹⁴¹ *ibid* 503.

¹⁴² *ibid* 490.

¹⁴³ *ibid* 489.

¹⁴⁴ Zweigert and Kötz (n 99) 61; Ernst Rabel, ‘Die Fachgebiete Des Kaiser Wilhelm-Instituts Für Ausländisches Und Internationales Privatrecht’ in Max Planck (ed), *25 Jahre Kaiser Wilhelm-Gesellschaft zur Förderung der Wissenschaften* (Julius Springer 1937).

¹⁴⁵ Gutteridge (n 94) 26.

¹⁴⁶ *ibid*.

¹⁴⁷ Kamba (n 23) 486.

the unification of laws or the ‘formulation of reliable theories of law’) and where the ‘results obtained [can] safely be depended on as accurate’.¹⁴⁸ Where these requirements are satisfied, the researcher can be confident that they have undertaken high quality comparative law.

2.3. Criticisms of Comparative Law

The discipline of comparative law has come a long way since its early days, whether those considered to be rooted back in the time of Aristotle or in the more recent days of the nineteenth century lawyers but it is not without its problems. Mathias Reimann claimed that comparative law ‘has made little progress as a coherent enterprise generating broader insight of general interest. Most of its scholarship remains random, unconnected, and thus inconsequential’.¹⁴⁹ He argued that the reason for this is that the discipline ‘as a whole lacks a sound theoretical framework’ and that ‘[a]t the end of the day, comparative law has not yet matured into a truly impressive intellectual discipline on either side of the Atlantic’.¹⁵⁰ The World Congress of Comparative Law held one hundred years after the original Paris Congress and intended to be a celebration of comparative law, resulted in the rather gloomy conclusion that lawyers ‘are led to wonder whether, in spite of all appearances and in spite of countless colloquia, books and articles, we have made any real progress in this field’.¹⁵¹ Blanc-Jouvan continued by arguing that comparative law was suffering from ‘an identity crisis’ whereby it had become an accepted academic field but ‘[o]ne knows less and less what comparative law really is, how it should be approached and what use can be made of it’.¹⁵² Perhaps this is natural given that it is still relatively new but it demonstrates that even those who are at the heart of the subject are still unsure about many of the foundations on which it is built.

2.4. Is Comparative Law a Science or a Method?

Academics have long debated whether comparative law can be regarded as a science or whether it is a mere method of legal research. Gutteridge explained that there are two schools of thought on the subject observing that the ‘somewhat arid logomachy’ mainly

¹⁴⁸ *ibid* 512.

¹⁴⁹ Reimann (n 121) 699.

¹⁵⁰ *ibid*.

¹⁵¹ Xavier Blanc-Jouvan, ‘Centennial World Congress on Comparative Law: Opening Remarks’ (2001) 75 (2001) 75 *Tulane Law Review* 859 859, 862.

¹⁵² *ibid* 863.

centres around the different interpretations of key words such as ‘science’ and ‘method’.¹⁵³ Both Gutteridge and Schmitthoff noted that this confusion is demonstrated by the fact that people have written books called ‘the methods of legal science’ as well as ‘the science of legal method’.¹⁵⁴ Holding that comparative law is not a science, Eric Kaden argued that the concept of comparative law referred to nothing more than a method of research while Pietro de Francisci wrote that a particular science of comparative law does not and cannot exist.¹⁵⁵ Clive Schmitthoff, however, argued that comparative law was of a scientific nature and that it could be characterised as a ‘distinct branch of legal learning’.¹⁵⁶ This was the dominant theory at the 1900 Paris Congress with many leading comparative lawyers, including Raymond Saleilles and Edouard Lambert supporting the position that comparative law is a science.¹⁵⁷ Later in the twentieth century, Max Rheinstein maintained that comparative law is a science ‘in the sense [that it] is the observational and exactitude-seeking science of law in general ... it endeavours to collect, observe, analyse, and classify them and, like other sciences in the narrow sense of the word, it searches for typical collocations, coincidences, and sequences, or, in the other words, for ‘laws’’.¹⁵⁸

Gutteridge argued that it matters little whether comparative law is a science; the important question is not ‘what is comparative law’ but instead ‘what is its purpose’, what are its aims and how does it function.¹⁵⁹ For modern social scientists, however, it is important for their disciplines to be considered sciences. The term science denotes rigour, proper procedure and reliable evidence and researchers seem to think that without defining their methodologies as ‘science’ they are somehow worth less than the natural sciences. Gutteridge may well have been right that the distinction does not really matter; the discipline can have these worthy characteristics however it is defined. Simone Glanert argues that the etymology of the word ‘method’ ‘connotes the search for a certain form of truth.’¹⁶⁰ The word comes from the Greek ‘methodos’ (μέθοδος) which is an amalgamation

¹⁵³ Gutteridge (n 94) 5.

¹⁵⁴ *ibid*; Schmitthoff (n 139) 95.

¹⁵⁵ Pietro de Francisci, ‘La Scienza Del Diritto Comparato’ (1921) 1 *Rivista Internazionale di Filosofia del Diritto* 233, 246; Eric Hans Kaden, ‘Stichwort: Rechtsvergleichung’ in Franz Schlegelberger (ed), *Rechtsvergleichendes Handwörterbuch*, vol VI (Vahlen 1938) 11.

¹⁵⁶ Schmitthoff (n 139) 95; Gutteridge (n 94) 5.

¹⁵⁷ Gutteridge (n 94) 5.

¹⁵⁸ Max Rheinstein, ‘Teaching Tools in Comparative Law’ 1 *American Journal of Comparative Law* 95, 98.

¹⁵⁹ Gutteridge (n 94) 5.

¹⁶⁰ Simone Glanert, ‘Method?’ in Pier Giuseppe Monateri (ed), *Methods of Comparative Law* (Edward Elgar 2012) 65.

of the prefix ‘after’ and the suffix ‘way’.¹⁶¹ Together they appear to indicate the ‘pursuit of knowledge’ and ‘mode of investigation’.¹⁶² Similarly, the Latin term ‘methodos’ means ‘rational procedure’ and ‘system of classification’.¹⁶³ Taking Glanert’s argument further than she does, it is possible to see that it does not matter whether comparative law is defined as a science or as a method because the term ‘method’ includes everything about the concept of ‘science’ that a social scientist and a legal researcher wants to be recognised in their work when they argue that their discipline is a science. For comparative law this means that the appropriate method is one which has a certain set of procedures which are used to carry out the investigation, that the research is well organised and methodical, employing a system or ‘orderly arrangement of ideas and topics’ and that the research is undertaken for the ‘pursuit of knowledge’.¹⁶⁴ Whether comparative law is a science or a method matters not as long as it is a means by which rigorous, defensible research can be undertaken.

2.5. How is Comparative Law Carried Out?

Although comparative law is a method or tool by which legal research which deals with multiple jurisdictions can be conducted, there is no single agreed methodology. Instead, there have been a number of proposed methods of comparative law, each of which may be useful for different types of projects. Four of the key methods are outlined below.

2.5.1. Functional Method

The classical means by which comparative law is carried out is called the functional method.¹⁶⁵ It was described by Zweigert and Kötz as ‘the basic method of all comparative law’.¹⁶⁶ The method focuses not on the doctrinal legal set-up of a jurisdiction but on that jurisdiction’s response to practical situations and occurrences. Researchers will generally look at judicial decisions to see how the law is applied practically in a particular country.¹⁶⁷ The functionalist is able to compare legal systems that are doctrinally different where the

¹⁶¹ *ibid.*

¹⁶² *ibid.*

¹⁶³ *ibid.*

¹⁶⁴ *ibid.*

¹⁶⁵ Zweigert and Kötz (n 99) 34.

¹⁶⁶ *ibid.*; James Gordley, ‘The Functional Method’ in Pier Giuseppe Monateri (ed), *Methods of Comparative Law* (Edward Elgar 2012) 107; Michaels (n 115) 340.

¹⁶⁷ Michaels (n 115) 342.

legal institutions being compared play the same functional role in their jurisdictions.¹⁶⁸ Functionality can then allow a researcher to evaluate the legal systems being compared by asking which of the legal systems ‘fulfils its function’ the best.¹⁶⁹ This is known as a ‘better-law comparison’.¹⁷⁰ The method asks researchers to look at the ‘law in action’ as well as the ‘law in books’.¹⁷¹

There are limitations with functionalism. While it can give the researcher information about the similarities between legal systems the researcher cannot tell why these similarities exist, whether it was deliberate or unintentional or even whether the similarity is as a result of previous study of the first legal system by the comparator.¹⁷² The method focuses primarily on legal disputes which have ended in court action.¹⁷³ Litigation, as any lawyer will know, forms only a tiny fraction of the way in which law is used and does not necessarily represent the reality of the system for everyone in society (litigation may, for example, only be open to the very wealthiest people or to those who are able to comply with strict rules on standing). However, despite the criticism, the functional method is a useful tool for working out how a legal system approaches a particular problem and, with the problem set as the ‘invariant element’, allows comparisons to be made between seemingly incomparable systems.¹⁷⁴

2.5.2. Problem Solving

The problem solving approach to comparative law allows for the comparatist to compare legal systems which are not otherwise easily compared.¹⁷⁵ Some legal systems may have concepts, legal norms and even institutions which have no equivalent in the other countries being studied.¹⁷⁶ Even where there appears to be an equivalent, similar terms or phrases may be being used for a completely different legal idea.¹⁷⁷ In order to compare these seemingly incomparable legal systems, the comparatist uses a specific problem, perhaps a social problem, a legal problem or an economic problem, and ascertains how each of the

¹⁶⁸ *ibid.*

¹⁶⁹ *ibid.*

¹⁷⁰ *ibid.*

¹⁷¹ *ibid* 364.

¹⁷² *ibid.*

¹⁷³ *ibid.*

¹⁷⁴ *ibid* 367.

¹⁷⁵ Kamba (n 23) 517.

¹⁷⁶ *ibid.*

¹⁷⁷ *ibid.*

legal systems being studied solves that problem.¹⁷⁸ This method allows comparisons to be drawn between the solutions and the way in which those solutions are reached.¹⁷⁹ The problem itself acts as a type of case study with the comparatist able to assess how each jurisdiction would solve the proposed problem and then use this data to provide meaningful comparisons between legal systems.

2.5.3. Deep Appreciation

One of the problems with comparative law is that the results can be considered to be superficial.¹⁸⁰ A researcher with limited knowledge of a legal system can find it difficult to grasp the significance of the law without understanding the culture in which the law is used. One tool used by comparative lawyers to circumvent this problem is that of deep appreciation.¹⁸¹ Deep appreciation requires the researcher to gain a real understanding of the culture in which a legal system is situated before attempting to understand that culture's laws. By doing this the researcher will 'delve to the very roots of laws and to the roots of the language in which, and the arts by which, laws are written and performed.'¹⁸² It is not an easy method and for most researchers the time required to gain the necessary knowledge and the complexity of doing so will make this method impossible. But for those who seek research which cannot be dismissed as superficial, it is important to recognise the connection between law and society and use their knowledge of the society's culture to really understand that country's legal system.

2.5.4. Legal Transplants

Alan Watson's 1974 work on legal transplants 'rapidly became a central 'paradigm' in comparative law'.¹⁸³ Arguing that the best place from which to find ideas for the improvement of law was by looking at other legal systems, Watson's theory was that legal systems only change and develop because they borrow ideas and solutions from each other.¹⁸⁴ Likewise, he argued that the best way to understand a legal system is to consider

¹⁷⁸ *ibid.*

¹⁷⁹ *ibid.*

¹⁸⁰ Frederick Henry Lawson, 'The Field of Comparative Law' (1949) 61 *Juridical Review* 16.

¹⁸¹ Gary Watt, 'Comparison as Deep Appreciation' in Pier Giuseppe Monateri (ed), *Methods of Comparative Law* (Edward Elgar 2012) 103.

¹⁸² *ibid.*

¹⁸³ Watson (n 118); Michele Graziadei, 'Comparative Law as the Study of Transplants and Receptions' in Reinhard Zimmerman and Mathias Reimann (eds), *The Oxford Handbook of Comparative Law* (Oxford University Press 2006) 442–443.

¹⁸⁴ Watson (n 118).

from where the legal principles have been borrowed or copied.¹⁸⁵ The theory was controversial because positivists believed that law is an expression of the will of society and if laws are borrowed or taken from another society, it is difficult to see how they can really be said to be the will of the people in the first society.¹⁸⁶ However, by undertaking comparative law using the tool of legal transplants, the researcher is able to tell how laws and institutions have spread through different cultures, how legal systems have changed or transformed them for their own purposes and how international relations can and have influenced the internal legal systems of countries.¹⁸⁷

2.6. The Process of Comparison

Walter Kamba, writing in 1974, developed a process for undertaking comparative research.¹⁸⁸ He acknowledged that, while the use of a proper method for comparative law is ‘a pre-requisite for success’, it is almost impossible to ‘devis[e] a single, comprehensive and standard technique that can be applied to all comparative studies and research’.¹⁸⁹ As a result of this, the ‘comparative lawyer must, to a considerable degree rely upon his individual judgment in deciding how to go about the comparison’.¹⁹⁰ This is important to note because it allows the researcher to use aspects of the various models described above to find the best method for the specific research which is being conducted. In this project, as is described below at 2.8, a mix of Zweigert and Kötz’s functional method and Kamba’s problem solving method were both used.

Although Kamba demonstrated that there was not a single technique to comparative law, he was able to devise a process by which much comparative law could be undertaken and it is this process which has been used in this study. Kamba’s process has three parts. The first of these is the descriptive phase.¹⁹¹ The researcher takes the time to describe the different aspects of the relevant legal systems.¹⁹² This description, if done well, will involve more than just a discussion of the written laws of the country.¹⁹³ As far as possible

¹⁸⁵ *ibid.*

¹⁸⁶ Graziadei (n 183) 465.

¹⁸⁷ *ibid* 474.

¹⁸⁸ Kamba (n 23) 511.

¹⁸⁹ *ibid* 510–511.

¹⁹⁰ *ibid* 511.

¹⁹¹ *ibid.*

¹⁹² *ibid.*

¹⁹³ *ibid.*

it should also include a description of the ‘norms, concepts and institutions’ or, in a more problem based comparisons, the description phase will examine the way in which the problem is approached in the different legal systems and the solutions which that jurisdiction has put in place.¹⁹⁴ The second stage is known as the identification phase.¹⁹⁵ During this phase the researcher attempts to identify the differences and similarities between the legal systems which are being compared.¹⁹⁶ This enables the researcher to relate the jurisdictions being compared to each other and in doing so begin to see what conclusions could be drawn from the comparison. It is at this point that the researcher will really begin to see, and to explain, the ways in which the systems are similar or different, whereas in the descriptive phase this may not have been as obvious because of differences in language, approach and institutions. Reitz explains that ‘this step of actually drawing the comparison is crucial to realizing the intellectual benefits of comparison’; it cannot merely be left to the reader to do the work.¹⁹⁷ Kamba’s third stage is called the explanatory phase.¹⁹⁸ During this phase, the researcher is encouraged to explain and account for the ‘divergencies and resemblances’ which were identified in phase two.¹⁹⁹ The three stages do not have to be presented in three distinct parts of the research; where appropriate, it is possible for the three stages to be ‘intermingled in the same discussion’.²⁰⁰

Kamba’s three phases may be amended slightly for the purposes of the needs of the work being conducted but where there is no attempt to relate the different jurisdictions to one another or where the main work is merely cataloguing the information discovered about different jurisdictions then it is unlikely to be sufficient to count as comparative law, there must be an element of ‘explicit comparison’.²⁰¹ Certainly without a systematic process, some element of identification of similarities and differences and then an attempt to use that identification for a purpose, whether that is explanatory or evaluatory, then the technique is likely to be ‘inadequate or unsystematic’.²⁰² Kamba’s ‘ultimate test’ for a process of comparative law is to ask the question ‘does the technique of comparison

¹⁹⁴ *ibid.*

¹⁹⁵ *ibid* 511–512.

¹⁹⁶ *ibid.*

¹⁹⁷ John C Reitz, ‘How to Do Comparative Law’ (1998) 46(4) *American Journal of Comparative Law* 617, 618–619.

¹⁹⁸ Kamba (n 23) 512.

¹⁹⁹ *ibid* 511–512.

²⁰⁰ *ibid* 512.

²⁰¹ *ibid*; Reitz (n 197) 618.

²⁰² Kamba (n 23) 512.

employed adequately or effectively fulfil the object or objects which the comparatist has decided on?'.²⁰³ If so, then the technique is likely to be suitable and appropriate.²⁰⁴

2.7. Limitations of Comparative Law

Comparative law is fraught with difficulties. Indeed, the more the researcher considers the discipline, the more obvious the limitations become. These limitations span the full range of potential problems from language, society and culture, access to materials, unfamiliarity with the legal system being studied, differing legal cultures, the imposition of the researcher's own legal paradigm and the reality of errors in the work conducted. Each of these limitations makes it difficult for the researcher to conduct a comparative law study and, unless properly addressed can lead to a result which is 'glib, overtly general and painfully superficial' as 'has so often passed current as comparative law'.²⁰⁵ A proper awareness of the risks, combined with concerted efforts to avoid the worst of the pitfalls, will lead to a more coherent and accurate study with greater depth and understanding, a study which will be significantly more useful to its readers.

2.7.1. Language

One of the key problems with comparative law is that not everyone speaks the same language. It is an obvious point but many of the sources which a comparative lawyer will encounter will not be in his or her own language.²⁰⁶ If the comparatist needs to be sufficiently fluent in the language of the jurisdiction being studied in order to read the law, a level of fluency that is quite high given law's linguistic complexity, this significantly narrows the breadth of countries which can be studied.²⁰⁷ However, the other option is for the comparatist to use translated versions of the laws and regulations from the foreign jurisdiction. This is not a perfect solution because so much nuance and meaning can be lost through the translation process. There may be words that do not easily translate, words and phrases which, while they can be translated, have very different meanings or are used in different ways, and syntax and sentence structure, so vital to the understand of law, is

²⁰³ *ibid.*

²⁰⁴ *ibid.*

²⁰⁵ *ibid* 514.

²⁰⁶ Vivian Grosswald Curran, 'Comparative Law and Language' in Mathias Reimann and Reinhard Zimmerman (eds), *The Oxford Handbook of Comparative Law* (Oxford University Press 2006) 676–677.

²⁰⁷ *ibid* 677–678.

often lost in translating to a language with different grammatical rules.²⁰⁸ A language is not merely a means of communication through words and letters either, it is influenced by, and influences, society, history, culture and the world view of its speakers.²⁰⁹ Vivian Grosswald Curran, in addressing this aspect of language, describes the ‘tapestries of interlinking threads that are woven into infinity, connections between past and present, and among spiralling associations inspired by words and phrases in a unique syntax, endless links of thread to connecting ties’.²¹⁰ Very little, if any, of this can be translated adequately. However, while language and the need to translate materials which are not in a language in which the comparative lawyer is fluent, is a potential area for mistakes, misunderstanding and failure to appreciate subtleties in the legal works of different jurisdictions, it is not a reason not to conduct comparative law at all. Instead, it is something about which the comparatist should be aware, should be humble enough to accept that his or her understanding may be limited and should seek to use all resources available, both primary and secondary, translated and in the original language, to ensure that his or her comprehension is as complete as possible.

2.7.2. Society and Culture

It is not just actual language which causes difficulties in comparative law. The language of culture and the impact of a culture on a society has huge implications for the interpretation of law. A society’s culture is made up of its social rules, its history, race and religion, its politics, its beliefs and everything that ‘one has to know or believe in order to operate in a manner acceptable to its members’.²¹¹ Ward Goodenough said that culture is held ‘in the minds and hearts of men’.²¹² Culture is not biological, it is learned, usually through upbringing; it consists of knowledge and behaviours.²¹³ Different countries have different social and economic conditions which, in turn, influence that country’s legal system.²¹⁴ This means that legal systems must be ‘viewed in the socio-cultural context in

²⁰⁸ *ibid* 679–681; Watson (n 118) 11.

²⁰⁹ Curran (n 206) 681; Bernard Pivot, Interview with Umberto Eco (5 July 2005).

²¹⁰ Curran (n 206) 681.

²¹¹ Clifford Geertz, *The Interpretations of Culture* (2000 edn, Basic Books, Perseus Books Group 1973) 11; Ward Goodenough, ‘Cultural Anthropology and Linguistics’ in Paul Garvin (ed), *Report of the Seventh Annual Round Table Meeting on Linguistics and Language Study, Held at Georgetown University, Washington DC in Spring 1956* (Georgetown University Press 1957) 167.

²¹² Geertz (n 211) 11; Goodenough (n 211) 167.

²¹³ Goodenough (n 211) 167.

²¹⁴ Kamba (n 23) 513.

which they thrive'.²¹⁵ Where a comparatist considers the 'textual or formal rules of law' but fails to place those rules within the context of the society in which they exist gives 'an incomplete and distorted picture'; 'formal rules do not tell the whole story'.²¹⁶ In order to understand a legal system, the comparative lawyer must ensure that his or her understanding is, to the extent possible, underpinned by a knowledge of the society which shaped the laws.

2.7.3. Legal Culture

As well as socio-cultural influences which are relevant to comparative law, legal systems themselves are steeped in their own culture. These cultures are not distinct from the broader culture but are 'embedded' within it.²¹⁷ Roger Cotterrell defines a legal culture as the 'general consciousness or experience of law that is widely shared by those who inhabit a particular legal environment, for example a particular region, nation, or group of nations'.²¹⁸ He argues that the law is not made up merely from the rules which are written down, but instead is formed from a variety of beliefs, values, practices, philosophy, history and traditions, surrounding law, lawyers, judges and legal institutions.²¹⁹ Frederick Pollock, writing in 1903, asserted that '[t]he working life of any body of law depends not merely on its authentic texts and the decisions or books that interpret them, but on complex influences of professional training, tradition, and habit or mind.'²²⁰ Geert Hofstede argued that '[s]ocieties ... have ways of conserving and passing on mental programs from generation to generation with an obstinacy which many people tend to underestimate'.²²¹ These aspects of a legal system's culture are rarely written down but they are learned, adopted and understood, as 'an entire epistemological framework' by those lawyers working within the system and are important for understanding the legal system beyond the written rules.²²² This is something which makes comparative law so complicated. Alan

²¹⁵ *ibid.*

²¹⁶ *ibid.*

²¹⁷ Roger Cotterrell, 'Comparative Law and Legal Culture', *The Oxford Handbook of Comparative Law* (Oxford University Press 2006) 710.

²¹⁸ *ibid.*

²¹⁹ *ibid.*

²²⁰ Frederick Pollock, 'The History of Comparative Jurisprudence' (1903) 5 *Journal of the Society of Comparative Legislation* 76, 77.

²²¹ Geert Hofstede, *Culture's Consequences: International Differences in Work-Related Values* (Sage Publications 1984) 16.

²²² Pierre Legrand, 'What "Legal Transplants"?' in David Nelken and Johannes Feest (eds), *Adapting Legal Culture* (Hart Publishing Ltd 2001) 65.

Watson said that ‘it is hard enough to know in detail one branch of the law of one system’ but knowing ‘its relationship with that of some other system...is nigh on impossible’.²²³

One major difference in legal cultures comes from the legal systems themselves and the different ways in which, for example, a common law system and a civil law system approach the role of written legal rules, the role of the judge and the importance of precedent.²²⁴ Similarly, the role of a legal institution can be very different in different legal cultures as a result of legal, historical and sociological influences, even where those institutions are given the same name.²²⁵ Unless these differences are taken into account, such as through use of a functionalist approach to the comparison (see 2.5.1 above) any analysis of the legal system, and any comparison with another, is likely to be incorrect. Taking a positivist approach to finding and reading the written rules of a country, without being aware of the legal culture in which those rules exist is likely to lead to error, superficiality or even a failure to understand a legal system at all. The comparatist’s job, however difficult and, in reality, however infeasible, is to grasp something of what Montesquieu describes as the ‘soul’ of a legal system: ‘it is not the body of the law that I am looking for, but their soul’.²²⁶ Only then can a legal system be understood in the way that those who practise it understand it.

2.7.4. Jurisprudential Outlook

In the same way that the legal system being studied has its own legal culture, so does any researcher who comes from a different legal system. The legal system in which a comparative lawyer has been educated and has practised will influence the way in which he approaches another legal system and will colour his ‘general attitude to law’.²²⁷ Some of this will come from the training which the lawyer has received regarding how to conduct legal research and how to think about law. Some of it will come from an assumption that the way something is conducted in the lawyer’s home legal system is the natural way to do things. Writing in the Harvard Law Review, Pierre Lepaulle put it like this: ‘[w]here one

²²³ Watson (n 118) 10.

²²⁴ Cotterrell (n 217) 721.

²²⁵ Schmitthoff (n 139) 97–98.

²²⁶ Pierre Legrand, ‘European Legal Systems Are Not Converging’ (1996) 45 *International and Comparative Law Quarterly* 52, 81; Montesquieu, *Dossier de l’Esprit Des Lois: Choses Qui n’ont Pu Entrer Dans La Composition Des Lois* (1748).

²²⁷ Kamba (n 23) 512–513; Reitz (n 197) 628.

is immersed in his own law, in his own country unable to see things from without, he has a psychologically unavoidable tendency to consider as natural, as necessary, as given by God things which are simply due to historical accident or temporary social situations'.²²⁸ It is also remarkably easy for those working within a legal jurisdiction to assume that even if the approach of their home nation is not the natural or necessary solution to a particular problem, it remains the best or the correct solutions. This, however, is merely because that is the system or solution with which the lawyer is most familiar, it does not necessarily make that approach the best one, either in the context of the home nation or in another culturally different jurisdiction. In order, therefore, to be able to study a second or further legal system without imposing on it the values and culture of his or her own legal background, the 'lawyer must free himself from the 'vincula' of his national system before he can estimate its true worth: the object of judgment (the national law) cannot be the standard of judgment'.²²⁹

2.7.5. Error and Access to Materials

A lawyer conducting research in his or her own legal system knows precisely where to search for legislation, regulations and case law and may have an awareness of what recent changes have been made. The researcher may know the key texts in the area or may rely the ones recommended when he or she first studied law. Hopefully the researcher will have access to a law library or to online research materials with which he or she is accustomed to using. This, however, is not the case for the lawyer undertaking comparative law within unfamiliar jurisdictions. The comparatist is faced with a system where he or she does not know what the key texts are, what laws might exist nor where to find them, what legal research systems are available nor how to use them. There may also be difficulties in accessing materials, particularly if they are in a foreign language or require a subscription which their law library does not have. This may limit the amount of materials which the comparative lawyer is able to source and may also result in the researcher being forced to use poorer quality sources than would be ideal.

As well as the problem with access to materials, the comparatist is at risk of getting the law wrong. Alan Watson was of the opinion that '[e]rror of law is probably more common in

²²⁸ Pierre Lepaulle, 'The Function of Comparative Law with a Critique of Sociological Jurisprudence' (1922) 35(7) Harvard Law Review 838.

²²⁹ Francis Bacon, *De Dignitate et Augmentis Scientiarum* (1623).

Comparative Law than in any other branch of legal study'.²³⁰ He cited a number of reasons for this, including being reliant on secondary sources which must be 'taken on trust', having too limited a selection of 'original sources' and, as was highlighted at 2.7.1 above, the problems with the source material being in another language.²³¹ The limited background knowledge of the legal system can be a real problem when searching for laws, cases and other materials, particularly if the legal system itself, and the research tools available, are ones with which the researcher is inexperienced. Combined with this is the problem that law itself is dynamic, it is constantly changing.²³² These may be changes to the law itself or more subtle changes made to interpretation or socio-legal changes in the country since the law was drafted. There is therefore no guarantee that the sources, particularly secondary sources, on which the lawyer is relying are current. Schmitthoff suggested that anyone conducting comparative law should 'keep under constant observation the foreign legal system'.²³³ Comparative lawyers need to pay particular attention to possible changes within the legal system which they are studying and to the accuracy and validity of any sources on which they are relying. They should also be aware that, despite this, it is unlikely to be possible to eliminate all errors and they should 'deal honestly and forthrightly' with this reality.²³⁴

Faced with these limitations and the many warnings in the literature about the poor quality of much comparative law, it is questionable whether comparative law is worth the effort involved. However, while there are a number of limitations and many ways in which the comparative lawyer can make mistakes, the benefits of comparative law far outweigh the limitations, as long as the limitations are dealt with properly. Done well, comparative law can provide a thoughtful contribution to the understanding of law, can draw out similarities and differences in approaches of other legal systems while analysing the broader legal questions which these raise and can provide suggestions for the improvement of legal systems through the use of solutions tried in other jurisdictions. Comparative law is, therefore, despite the potential pitfalls, worth pursuing.

²³⁰ Watson (n 118) 10–11.

²³¹ *ibid* 11.

²³² Schmitthoff (n 139) 98.

²³³ *ibid*.

²³⁴ Reitz (n 197) 630–631.

2.8. Methodology

The remainder of this chapter focuses on the specific methodology used in this thesis, implementing the broad research framework already discussed in this chapter to the specific situation. In choosing a methodology for this study, considerable time and thought was given to the consideration of the purpose of comparative law outlined above at 2.2, to the different types of comparative law, ranging from the functional method (see 2.5.1 above) to Watson's legal transplants (see 2.5.4 above) and to the process of comparative law such as those described by Kamba and Reitz (see 2.6 above). Using this information, a method was formulated to provide the best possible means of comparing the legal systems across the European and North American Arctic and their approach to endangered species protection.

2.8.1. Objects of the Study

The first question which needed to be answered was 'what are the objects or objects of the study'. Only by identifying these objects could Kamba's 'ultimate test' of whether the methodology fulfils the objects could be considered.²³⁵ The object of this study, as identified in the research questions set out at 1.2 above, was to conduct a comparison of the endangered species laws of the six countries being studied, to evaluate, by way of comparison, the effectiveness of the laws in their ability to conserve Arctic species and to identify good practice across the Arctic in order to inform recommendations for improvement of the law.

2.8.2. Methodological Framework

There were two main choices of comparative law which could be chosen as the methodological framework for this study, namely the functional method and the problem solving method. Deep appreciation was not really appropriate because of the difficulties of gaining a sufficiently deep understanding of culture and language of six nations in the limited time allowed for doctoral study. Even if time had allowed, it would still not have been the best methodological framework available for the comparison because endangered species protection laws do not turn on the linguistic nuisances in law like some other disciplines might. Despite this, some elements of deep appreciation, including the knowledge that culture and legal culture play a role in the development and understanding

²³⁵ Kamba (n 23) 512.

of law, were taken into account and proved useful, particularly when considering the impact of laws on indigenous people groups. Legal Transplants, as a methodological basis, would not have been appropriate as the purpose was not to explain how the endangered species laws had ended up how they are. However, during the research it became possible to identify how laws had developed, with similar language and similar approaches used in more than one country. This, however, was not the purpose of the study so was not the chosen framework. The two selected methodological bases, the functional method and the problem solving method, both rely on a jurisdiction's response to a particular problem, either through looking at how the law is applied in various jurisdictions or how a legal system has reacted to the problem in question. The functional method, in particular, allows the comparator to assess which system best fulfils the function being studied, both in terms of the law on paper and, where possible, in practice. For this study, the problem being posed was the issue of the conservation of Arctic species. The question being asked was how can an Arctic country best conserve its species north of the Arctic circle. The functional and problem solving methodological frameworks could both be applied in more or less the same way, with the posing of a specific problem allowing the identification of the various different solutions reached by the Arctic nations in seeking to protect Arctic species, both in terms of laws and regulations and in terms of case studies of legal cases demonstrating the application of law by the courts. Using the method outlined below it was then possible to consider which system best fulfilled the objective or the function and, having found such good practice, it was possible to make recommendations about changes which could be made to the species protection systems.

2.8.3. Method of Comparison

Having identified the object of the study and the type of comparative law being conducted, it was then necessary to develop a method for the comparison, using Kamba's methodological process as a starting point.²³⁶ His first two phases, the descriptive phase and the identification phase, were entirely appropriate for this study.²³⁷ A full explanation of how the data was collected for the descriptive phase is provided below but, once collated, a country study was written for each of the countries included in the work. This country study forms the descriptive phase of the comparison and, as this is a problem based

²³⁶ *ibid* 510–512.

²³⁷ *ibid*.

comparative study, it seeks to provide an answer to how each country approaches the problem of Arctic species protection. The second phase of the comparative process is the identification stage, during which the similarities and differences are drawn out through detailed comparison.²³⁸ This second phase took place as part of the critical analysis. In each of the three sections of the analysis, a number of different similarities and differences are examined, showing the ways in which the systems are distinct from each other and the ‘commonalities’ that they demonstrate.²³⁹ In terms of the comparisons in the sections of the analysis dealing with the use of scientific evidence (Comparative Analysis, Part II) and the adaptability of the laws to the new threats in the Arctic (Comparative Analysis, Part III), the second phase was carried out first and then the third phase or the evaluative stage was undertaken. However, as well as these broad themes, it was desirable to compare and contrast the more minute detail of the species protection rules. After much consideration regarding how to present this information, a decision was taken to use individual species as examples to enable the countries to be compared at a micro level as well as the macro level of the broader themes mentioned above. The use of individual species for comparison provides a narrow subset of the larger problem with which to deal, so instead of comparing the protection of species, the section specifically compares the protection of polar bears and Arctic foxes which were selected because of their iconic status as Arctic species and because of their broad circumpolar distribution. From this, conclusions can be drawn for these particular species but also more broadly across the jurisdictions for species in general.

Kamba’s final phase was the explanatory phase where the researcher sought to account for the ‘divergencies and resemblances’.²⁴⁰ However, in this study, merely explaining the differences and similarities between the countries and jurisdictions would not be sufficient to ‘effectively fulfil the object’ of the study because the object was not to explain the differences but to evaluate the systems.²⁴¹ As such, it was necessary to devise a different final phase which would fulfil the objects while still ensuring that the method satisfies the requirements to be considered to be comparative law. The phase which was developed can be described as the evaluatory phase. Instead of explaining the comparisons, as Kamba advised, in this study, the final phase is to evaluate the different systems, using the

²³⁸ *ibid.*

²³⁹ Reitz (n 197) 624.

²⁴⁰ Kamba (n 23) 512.

²⁴¹ *ibid.*

comparisons, to establish which of the systems, if any, fulfil the objects identified at the start of the study. The identification phase provided the opportunity to identify some of the broad themes which were raised throughout the study and, during the evaluatory phase, these broad themes, the use of scientific evidence and the adaptability of the systems to new threats, could be analysed in depth in order to discover good practice and to make recommendations for possible improvements where deficiencies were found. The micro comparison conducted for specific species allowed for the details of the species protection rules, such as the assignment of threat level, the protections put in place, any exemptions to the rules including when hunting is allowed and the ways in which the rules are enforced to be examined and evaluated, and conclusions drawn. It also, more importantly, allowed conclusions to be drawn more widely about the effectiveness of the species protection systems in the Arctic.

This evaluatory phase, replacing Kamba's explanatory phase, meets Kamba's 'ultimate test' as it allows for the effective fulfilment of the objects.²⁴² The objects called for evaluation by comparison with the aim of assessing the effectiveness of the conservation laws and of identifying good practice to inform recommendations for improvement. All of these objects were able to be fulfilled by the method devised.

2.8.4. Boundaries of this Project

There were a number of decisions and choices which need to be made in relation to the boundaries of this project. It was necessary to make these decisions in order to define what would be included in the scope of the study and what would be excluded. The first choice was which countries were to be studied. There are eight Arctic nations, the USA, Canada, Greenland, Iceland, Norway, Sweden, Finland and Russia. Iceland was excluded because it has almost no land north of the Arctic Circle. The main island of Iceland is located south of the Arctic Circle but the small offshore island of Grímsey, lies just to the north. With so little land located in the Arctic, it was decided that Iceland would not be included in the study. The only other Arctic country which was excluded was Russia. While it would have been interesting to have a full circumpolar study, the language, culture and legal culture in Russia were far too inaccessible and beyond what would have been possible in the limited

²⁴² *ibid.*

timespan of a doctoral thesis. The study therefore focussed solely on the Arctic nations in Europe and North America.

Initially this research project had a much larger scope, with the aim of comparing the environmental laws of the Arctic countries. When this proved to be far too big to complete in the time available, and to write up in the space available, a decision had to be made about which issue would be selected as the principal area for study. Endangered species protection was chosen for a number of reasons. Firstly, because it was clear that there were a number of interesting comparisons which could be made. Secondly, because all of the jurisdictions had a reasonably well-developed legal system regarding species protection which could be analysed. Thirdly, because it formed a discrete topic whereas other areas of environmental law were more interrelated, and finally, and most importantly, because recent changes in the Arctic pose a huge threat to its species and it was clear that there was much to learn from a comparative legal study about species protection which could assist with policy making and planning for an Arctic which may look very different in the near future. The only implication for the decision to alter the project in this way is found in the discussion about research methods below at 2.8.7 and 2.8.8 because the search terms used to find environmental laws in the Arctic were much broader than if the search had been conducted solely for endangered species cases. The database which was created from these searches, although unfinished when the decision to curtail the project had to be made, was easily examined to find the cases relating only to species protection, all of which came under the broader heading of environmental law which meant that the searches did not need to be repeated.

The third choice which had to be made was what species would count as Arctic species. For some species, such as the polar bear and the Arctic fox, the question is easily answered as these are iconic species with a definite Arctic distribution. For other species, particularly for birds, the question is not so easily answered. Many birds and marine mammals spend the summer in the Arctic but migrate south during the winter and other species may be present in the Arctic but also reside in places much further south. Two sources were used to decide whether a species was an Arctic species. The primary source was Sharon Chester's masterful book, *The Arctic Guide: Wildlife in the Far North* published in 2016.²⁴³

²⁴³ Chester (n 24).

This book covers, in impressive detail, the animals and plants found in the Arctic, showing their range, giving information about the species and providing detailed drawings of species at different points in their life cycle.²⁴⁴ If a species was listed in this book and if the range map showed that the species resided in one of the countries included in the study or in its territorial water then it was considered to be an Arctic species. Where there was any doubt about a species, the range maps provided as part of the global red list produced by the International Union for the Conservation of Nature ('IUCN') on their website were consulted.²⁴⁵ If a species was not shown as having an Arctic presence in either The Arctic Guide or on the IUCN's website then it was not included as an Arctic species.

As part of the decision about which species would be included, a choice was made that although marine mammals would be included, species of fish would not. While there are some species of fish which are protected under the species protection systems around the Arctic, the majority of issues surrounding fish and fishing are dealt with under other legislation or regulations and often by completely different government departments or agencies. The management of fish and of fishing in the Arctic is a topic of its own and it would have been impossible to do it justice in the space available.

The fourth decision to be made was which cases should be included as case studies. These case studies were to come from reported court cases, in an attempt to show how the law works in practice as well as how it works on paper (see 2.7.3 above). Before the case studies could be selected it was necessary to gather information on all the court cases which would be relevant, from which the case studies could be selected. In order to do this, the limits of the search needed to be defined. The first limit chosen was the Arctic Circle. All of the cases for possible selection needed to have a factual matrix which had taken place north of the Arctic Circle. While this ruled out a number of cases which affect the Arctic, it was necessary to have a boundary. It could be argued that many cases which deal with places or species located south of the Arctic Circle will affect the Arctic in some way, such as through altering the interpretation of the species protection legislation, but tracing each of these cases would be impossible. A decision was therefore made to concentrate solely on cases which were geographically based within the Arctic, using the Arctic Circle as the

²⁴⁴ *ibid.*

²⁴⁵ 'The IUCN Red List of Threatened Species' (*International Union of the Conservation of Nature*) <<https://www.iucnredlist.org/en>> accessed 28 October 2018.

most easily delineated definition of the Arctic (see 1.5 above). Secondly, there was no point in using court cases which were completely out of date as the law is too dynamic for such cases to be relevant today and the risk of such cases providing outdated, and therefore incorrect, law was too high. It is also the case that conditions in the Arctic have changed so much in recent years, particularly in relation to the climate, that the courts in older cases are dealing with a very different Arctic to that being dealt with by modern courts. A cut off point was needed and the year 2000 was selected, partly because it provided a period of two decades which was a long enough time period to obtain a representative selection of cases and partly because this marks the time at which concern about climate change began and its impact on the Arctic became more widespread. In fact, searches were made for about a decade prior to this cut off point, wherever possible, to ensure that there were no particularly important or relevant cases which fell just outside the chosen time limit.

2.8.5. Dealing with the Limitations

Earlier in this chapter, at 2.7 above, the limitations of comparative law were outlined. In that section, the general problems and risks faced by a comparative lawyer were explained. Each of these limitations also applied to the current study although, having identified the limitations at an early stage, it was possible to take a number of measures to reduce their impact on the results.

2.8.5.1. Language

One of the biggest problems in this study, as with many comparative law studies, was the issue of language. Out of the six countries and eleven jurisdictions studied, materials were only available in English for two countries (the USA and Canada) and five sub-national jurisdictions (Alaska, the Yukon, the Northwest Territories, Nunavut and Svalbard). For Greenland, Norway, Sweden and Finland the majority of the materials, and almost all of the up-to-date materials, were in Danish and Greenlandic, Norwegian, Swedish and Finnish respectively. It was therefore necessary to translate the materials and this was achieved using online translation tools, primarily Google Translate.²⁴⁶ Five to ten years ago, Google Translate would not have had the ability to translate legal documents with enough accuracy for them to be understood but the technology has improved significantly in recent years with the introduction of neural machine translation. Experience showed, however, that the

²⁴⁶ 'Google Translate' <<https://translate.google.co.uk/>> accessed 26 June 2019.

results, if used with care, were sufficiently reliable, particularly where the researcher is aware of the context.²⁴⁷ The results were not always completely accurate so some attention was required to ensure that the translations were correct. Usually this took the form of double-checking results which seemed unusual against other dictionaries to search for alternative translations which would make more sense within the context of a rule on species protection, and which were therefore more likely to be correct. For example, in the Finnish case relating to the baiting of bears, the word ‘carrion’ was originally mistranslated as ‘shark’ and further research was required to find the appropriate translation.²⁴⁸ In many ways, the process of comparison aided the process because there was often similar language employed in one or more jurisdiction which helped with sense checking the translations. The only language in which this method was not possible was Greenlandic as Google Translate is not yet able to deal with the complexities of Greenlandic. Fortunately, all of the materials from Greenland were also available in Danish so this did not prove to be a problem.

The second problem caused by language was searching for materials in the first place. As is discussed below at 2.8.8, the electronic legal databases used by lawyers from the relevant jurisdictions were used to search for legislation, regulations and court cases. While it is possible to translate the results pages, the search functions only work in their respective languages. This meant that all search terms had to be in either Danish, Norwegian, Swedish or Finnish. Although this was a challenge, the necessary vocabulary was quickly acquired in each language and this enabled proper searches to be made for the necessary materials. The search terms used are set out below at 2.8.7 and 2.8.8.

Neither of these systems are an adequate replacement for real fluency in the languages of the countries being studied and there will undoubtedly be errors, misunderstandings and mistranslations in the materials included in the country studies. These errors have been minimised though the implementation of the procedures set out above and through thoughtful awareness of the risks of translation, however good, leading to careful use of

²⁴⁷ Yonghui Wu and others, ‘Google’s Neural Machine Translation System: Bridging the Gap between Human and Machine Translation’ [2016] arXiv:1609.08144v2 [cs.CL] <<http://arxiv.org/abs/1609.08144>> accessed 26 June 2019; ‘Language Support’ (*Google Cloud*) <<https://cloud.google.com/translate/docs/languages>> accessed 26 June 2019.

²⁴⁸ *Bear Hunting Offence* (2014) (Rovaniemi HO 26.9.2014 14/139922).

any translated material in this study. There can, however, be no guarantees that the work is entirely free of error.

2.8.5.2. Social and Legal Culture

Another of the problems which frequently blights comparative law, and which also posed a risk for this study was the issue of social and legal culture. As explained at 2.7.2 and 2.7.3 above, the culture of a society and its legal system both have a huge impact on the interpretation of the laws and much of this cultural knowledge is not written down but is understood by the members of a particular society or the lawyers working in a legal system. The Arctic countries included in this study each have their own culture, all of which are very different from the author's own background in the United Kingdom, although the author lived in Alaska and worked for an environmental law firm there from 2013 to 2014. The countries also represent a range of different legal systems, from common law, to Nordic civil law, Greenland's civil law flavoured with traditional law and Svalbard's international legal status. One of the challenges with this study was to gain some insight into the social and legal cultures of the countries being studied.

John Reitz suggested that one solution to the problem of understanding culture and legal culture was for the comparatist to gain 'in-country experience'.²⁴⁹ He argued that 'in-country experience is crucial for learning about the actual practices and social conditions that may create gaps between the law in practice and the law in action'.²⁵⁰ In this project, in-country experience was obtained through Visiting Researcher appointments in four of the six countries being studied. The author was a Visiting Researcher at the following universities:

- Northern Institute of Environmental and Minority Law, Arctic Centre, University of Lapland, Rovaniemi, Finland
September 2016 to December 2016
Supervised by Professor Kamrul Hossain

²⁴⁹ Reitz (n 197) 632.

²⁵⁰ *ibid.*

- Harvard Law School, Harvard University, Cambridge, MA, USA
January 2017 to January 2018
Supervised by Professor Richard Lazarus
- Arctic Oil and Gas Research Centre, Ilisimatusarfik, University of Greenland, Nuuk, Greenland
August 2017 to September 2017
Supervised by Professor Rachael Johnstone
- KG Jebsen Centre for the Law of the Sea, Universitetet i Tromsø, Tromsø, Norway
July 2018 to October 2018

The author also spent summer 2016 in Alaska, including a trip to the northernmost town, Utqiagvik, and January 2018 taking a History of Svalbard class at the University Centre in Svalbard, Longyearbyen, Svalbard. Together these various opportunities allowed the author to live and work in a number of Arctic regions, to witness and take part in various cultural experiences and to live with, befriend and work alongside local people. It also provided access to university libraries with collections of relevant books, to legal database systems in the various jurisdictions and enabled the author to meet and talk with lawyers and academics based in the countries being studied. In Svalbard and at Harvard the author took courses covering the history and geopolitics of Svalbard, American legal history and American environmental law. These courses, particularly in the USA, were an excellent way to learn about legal systems alongside those being trained in their legal system. Each of these experiences provided a number of insights into the society and culture being studied in ways that could not have been achieved merely through reading books. For example, on arriving in Longyearbyen, Svalbard, it quickly became apparent that, unlike in Alaska and in Greenland, there was no indigenous population. This makes it much easier to create areas on Svalbard that no one may access than it is in countries where people having been living on and relying on the land for thousands of years. Many of the cultural and legal impressions have made it in to this thesis in a way that is indirect rather than direct. This is partly because as John Reitz points out, such information gleaned during field work (which he likens to an anthropologist's 'field observations') is 'anecdotal' and impressionistic.²⁵¹ Instead, its key role was to influence the research, to give a greater depth

²⁵¹ *ibid.*

and richness of knowledge about the countries being studied and to provide a level of understanding that would not have been possible by remaining in Newcastle for the entire research period. It is hoped that the influence can be seen throughout the research.

2.8.5.3. Jurisprudential Outlook

The author, an English-trained common law lawyer, like all researchers, brings her own jurisprudential outlook to the research in this study (see 2.7.4 above). Perhaps somewhat unusually for a comparative law project, none of the domestic legal systems studied are the author's 'home' legal system. This gives something of an advantage because, instead of the project being a comparison of one familiar legal system with an unfamiliar one, this project is the comparison of eleven jurisdictions which began as totally or mostly unfamiliar to the author. The risk, therefore, was less that one system was well known and being compared to a less well known system but that the author may impose her own legal system on to any or all of the legal systems in the study. This risk was minimised in much the same way as the risks associated with not understanding the social and legal culture were minimised, including time spent studying in the universities of many of the countries as possible, through careful reading of secondary materials such as text books about environmental law in the relevant countries and through awareness of the risk. For example, the precedential value of court cases varied greatly in the different jurisdictions included in this study and it was therefore important to be aware of those differences, and of the author's own training in using case law, when using the studies, recognising that many of the case studies are examples of the way in which the law is used in practice, rather than as the key cases which establish the law, as would be more common in a study centred entirely around common law systems. It must be acknowledged, however, that it is impossible to prevent the influence of a researcher's own jurisprudential outlook on a project and there is little doubt that there will remain traces of the author's legal training and background in the interpretations of the legal systems in this study.

2.8.5.4. Error and Access to Materials

Error remains a large problem within comparative law, as was explained at 2.7.5 above. A researcher working within a jurisdiction with which he or she is unfamiliar or in a language which he or she cannot speak is prone to missing salient points, is reliant on secondary sources which may be incomplete or out of date and may misunderstand the materials which he or she has. A number of methods were used to reduce the risk of error in this

project. The main method used was to approach the research from a number of different angles so as to ensure that nothing was missed. Research was conducted using text books and encyclopaedias written in English about the countries being studied, the websites of the government departments responsible for species protection (and, where possible, the version of their website in their own language which usually contains more information and is more regularly updated), through careful and thorough searching of legal databases for up to date legislation and through reading a number of online newspapers based in the Arctic and other Arctic news sources, such as the Independent Barents Observer, Eye on the Arctic and, until it recently closed, Arctic Deeply.²⁵² Through approaching the research from all these different angles, the risk of missing an important act or new regulation. For example, it meant that new editions of red lists published in both Finland and Greenland in 2019 did not go unnoticed and could be incorporated into the thesis. This approach of gathering materials from a number of sources also minimised the risk of the law being misunderstood or explained incorrectly. However, as with mistakes caused by language and culture, it is impossible to eliminate all errors but care has been taken to ensure that any such errors are as few as possible.

Access to materials in this study was made possible by the opportunity to undertake Visiting Researcher positions in a number of Arctic universities, all of which had collections of relevant books in English, and at Harvard Law School which boasts the largest academic law library in the world. Access to a number of the legal databases was available online, either as the country had a publicly accessible database, or while the author held posts at universities with subscriptions. As a result of this, and as a result of the improvement in online translation tools (as described above at 2.7.1), access to good quality materials did not cause too many problems.

2.8.6. Country Studies

The descriptive phase of this study is made up of individual country studies, one for each of the six nations involved in the comparison. Once completed, these country studies then formed the data which could be used for the comparative work conducted during the

²⁵² 'The Independent Barents Observer' (*The Independent Barents Observer*) <<https://thebarentsobserver.com/en>> accessed 23 January 2020; 'Eye on the Arctic' <<https://www.rcinet.ca/eye-on-the-arctic/>> accessed 23 January 2020; 'Arctic Deeply' (*Arctic Deeply*) <<https://www.newsdeeply.com/arctic>> accessed 23 January 2020.

identification and evaluation phases. In order to allow for comparison among countries with different legal systems and cultures, the layout of each country study follows the same model, although they are of considerably varied length because some countries, such as Sweden and Finland, have just a single jurisdiction and were therefore fairly simple while others, like Canada and Norway, have multiple jurisdictions or wildlife protection systems, making them much more complicated. For each country, a brief history is provided, followed by a description of the geography of the Arctic region of that country and an outline of that country's legal system. This section on history, geography and the legal system is important because it places each of the different country studies in context and provides a small insight into some of the historical, legal, social and cultural aspects of each country which influence how they have chosen to protect their Arctic species. This section is followed by a description of the types of Arctic species which are found in the country which is important because the Arctic flora and fauna in Finland and Sweden are very different from that found in Greenland and Canada and this therefore affects the species which require protection. Following the description of the wildlife, the country study sets out the legal methods by which the country protects its Arctic species, beginning with direct species protection such as endangered or threatened species laws, identification of protected species and the methods used for protection. Next comes a discussion of the rules which allow hunting as a derogation from the rules on the protection of species. All of the countries studied allow some types of hunting but the limits and restrictions in place provide for very different levels of protection for species in different countries. Towards the end of each country study is a brief discussion of the habitat protections in place which contribute to the protection of Arctic species, such as national parks and nature reserves. General habitat protection of this type (as opposed to species specific critical habitat which is discussed under the section on species protection rules) is important because it protects entire ecosystems which themselves are vital to species conservation; there is no point protecting the polar bear if the ecosystem on which the bear relies for food, hunting, rest, mating and rearing young has been destroyed. However, as the focus of this thesis is on species protection rather than more general Arctic ecosystem protection, more weight is placed on the former than the latter. Finally, in each chapter there are a number of case studies. These case studies are taken from legal cases which have been through the courts in the relevant country and they are used to provide information, in line with the functional method of comparative law, about how the law is applied in practice. Laws, especially environmental laws, can have an aspirational quality to them which says more about how

the country would like to manage its affairs than how it actually does. Were this study only to explain the acts and regulations, it would fail to explore how the laws really work. Using case studies allows a demonstration of how the courts in each country approach endangered species protection within their own jurisdiction. For the common law countries, the USA and Canada, legal cases form part of the canon of law as they become binding precedent, whereas for the Scandinavian countries (which have a model which is closer to civil law), the cases are examples of how the laws are implemented rather than binding precedents.²⁵³ In both cases, however, the cases are useful because they enable the research to move beyond merely the ‘law in books’ and towards, albeit imperfectly, the ‘law in action’ as required by the functional method.²⁵⁴ As space prevented the inclusion of all relevant cases, for countries where a choice of more than two cases were available, a selection had to be made. The method used for the selection is discussed at 2.8.8 below.

2.8.7. Research Methods for Species and Habitat Protection Mechanisms

For the USA, the research began with the use of a number of textbooks and monographs, along with author taking a class on environmental law at Harvard Law School.²⁵⁵ The US legal system benefits from a significant number of books and articles on environmental law and on the Endangered Species Act which made it easy to find the information required. From here, finding the specific acts was possible through the Westlaw legal database, accessed through Harvard Law School (as well as publicly available through the website of the US Government Publishing Office).²⁵⁶

When researching Canada, initial information came from the Encyclopaedia of Environmental Law which provided a basic outline regarding species protection in Canada.²⁵⁷ After this, the pages of the Canadian government website relating to the Species

²⁵³ Zweigert and Kötz (n 99) 259–261, 277.

²⁵⁴ Michaels (n 115) 364.

²⁵⁵ Roger W Findley and Daniel A Farber, *Cases and Materials on Environmental Law* (5th edn, West Group 1999); Michael B Gerrard (ed), *Environmental Law Practice Guide* (Matthew Bender and Company Inc, Lexis Nexis Group 2017); Margaret Rosso Grossman and Philip Weinberg, ‘Introduction’, *Encyclopaedia of Environmental Law - United States of America* (Wolters Kluwer Law & Business 2000); Craig N Johnston and Melissa Powers, *Principles of Environmental Law* (West Academic Publishing 2016); Lawrence R Liebesman and Rafe Petersen, *Endangered Species Deskbook* (2nd edn, Environmental Law Institute 2010); Tony A Sullins, *The Endangered Species Act* (American Bar Association 2001); Thomas FP Sullivan (ed), *Environmental Law Handbook* (23rd edn, Bernan Press 2017).

²⁵⁶ ‘U.S. Government Publishing Office’ <<https://www.gpo.gov/>> accessed 2 July 2019.

²⁵⁷ Jamie Benidickson, ‘Canada’, *Encyclopaedia of Environmental Law* (Wolters Kluwer Law & Business 2016).

at Risk Act provided important information, as did the websites of the territorial governments.²⁵⁸ The wording of all of the relevant acts and regulations were available on the Westlaw legal database with access provided by Harvard Law School. Each of the territories has produced handbooks explaining the hunting regulations for their area and these were useful in working out the details of the rules and their application in different parts of the territories.²⁵⁹

Of all the countries, Greenland proved to be the most difficult to research because there is limited written legal material in any language and almost nothing written in English. Much of the information regarding the species and habitat protection system in Greenland had to be worked out from reading the acts and regulations, all of which were available, in Danish or Greenlandic, on the Greenlandic public legislation website.²⁶⁰ It was possible to search this website for acts related to the environment and once the key acts were found and understood a search could then be made for regulations made under the acts.

In relation to Norway, the starting point was the Encyclopaedia of Environmental Law which provided an overview of the species protection legislation in Norway.²⁶¹ The preliminary information in respect to Svalbard came from the section of the course taken by the author at the University Centre in Svalbard (mentioned above at 2.8.5.2) relating to environmental law on Svalbard. The wording of the acts and regulations, in Norwegian for the legislation relating to mainland Norway and in English for those which apply in Svalbard, were available on Lovdata Pro, Norway's online legal database, with access provided through the University of Tromsø.²⁶²

In order to find the relevant legislation and regulations in Sweden, it was necessary to use the public legislation website, the website of the Swedish Riksdag (Swedish parliament)

²⁵⁸ Environment and Climate Change Canada, 'About the Species at Risk Act' (*Government of Canada*, 2 October 2008) <<https://www.canada.ca/en/environment-climate-change/services/environmental-enforcement/acts-regulations/about-species-at-risk-act.html>> accessed 2 July 2019.

²⁵⁹ *Yukon Hunting Regulations Summary 2018-2019* (Yukon Department of Environment 2018); *Nunavut Hunting Guide 2018/19* (Nunavut Department of Environment 2018); *Northwest Territories Summary of Hunting Regulations July 1, 2017 to June 30, 2018* (Government of Northwest Territories 2017).

²⁶⁰ 'Greenlandic Legislation' <<http://lovgivning.gl>>.

²⁶¹ Hans Christian Bugge, 'Norway', *Encyclopaedia of Environmental Law* (Wolters Kluwer Law & Business 2014).

²⁶² 'Lovdata Pro' <<https://lovdata.no/pro>>.

where copies of the relevant acts and regulations were available in Swedish.²⁶³ Translations of the acts and regulations were made using online translation tools such as Google Translate. A number of useful documents relating to species protection in Sweden have been published by Naturvårdsverket, the Swedish Nature Protection Agency, and these were used to understand the system and the legislation.²⁶⁴ As Sweden is a European Union Member State, sources explaining the European Directives were also used.²⁶⁵

Finland has a professional standard online legal database which is run by the Finnish Ministry of Justice and entirely free to all users. The database, Finlex, provides all Finnish legislation and regulations and links legislation with amendments made after initial publication.²⁶⁶ The materials are all available in Finnish and Swedish and some are also translated into English, although the English translations proved to be out of date. Initial research was carried out using textbooks and an encyclopaedia which gave a starting point for the acts and regulations which would be relevant, and the Finlex database was used to find the full versions of these, along with amending legislation and other relevant acts.²⁶⁷ The initial searches were carried out using the statute and decree numbers found in the textbooks and, once found, they were translated using online translation tools. One of the biggest challenges with understanding the Finnish Nature Conservation Act was that the list of species affected by the act, over 2,000 species, gave the Finnish and Latin names, sorted alphabetically in Finnish. Google translate could not translate these pages so the key species had to be identified from their Latin names, using online resources and Chester's *The Arctic Guide: Wildlife of the Far North*.²⁶⁸

2.8.8. Research Methods for Cases

²⁶³ 'Sveriges Riksdag' (*Riksdagen*) <<http://www.riksdagen.se>>.

²⁶⁴ Sverige and Naturvårdsverket, *Sweden's Environmental Objectives: An Introduction* (Swedish Environmental Protection Agency 2013); Björn Thews, Ping Höjding and Bo Jansson, *Swedish Environmental Law* (Swedish Environmental Protection Agency 2017) <<http://www.naturvardsverket.se/Documents/publikationer6400/978-91-620-6790-8.pdf?pid=21184>> accessed 15 November 2018; Marianne Wetterin, Sverige and Naturvårdsverket, *Protected Species of Plants and Animals in Sweden* (Naturvårdsverket 2012).

²⁶⁵ Christopher Rodgers, *The Law of Nature Conservation* (Oxford University Press 2013).

²⁶⁶ 'Finlex Legal Database' <<https://www.finlex.fi/fi/>> accessed 28 June 2019.

²⁶⁷ Pekka Vihervuori, 'Finland', *Encyclopaedia of Environmental Law* (Wolters Kluwer Law & Business 2013); Suvi Borgström and Timo Koivurova, *Environmental Law in Finland* (Tietosanoma 2016); 'Finlex Legal Database' (n 266).

²⁶⁸ Chester (n 24).

For the majority of the countries included in this study it was possible to gain access to the legal databases used by lawyers in those countries for legal research. With such access, searching for relevant cases was not dissimilar to using legal research tools in England, although the layout of each database was very different and, for some of the databases, searching had to be conducted in a foreign language. As was explained at 2.8.4 above, this project was initially much broader and so primary searches for the countries dealt with at an earlier stage were conducted differently to those which were undertaken later. For earlier searches, more generic terms such as ‘environment’ and ‘Arctic’ were used whereas for later searches it was possible to search against parts of specific species protection legislation. The type of search terms used also varied slightly as the search method became refined as it was used, because of the need to search using a number of different foreign languages for which different amounts and type of vocabulary were known and because of the differences in the way in which the various species protection systems work. As using search functions can leave the researcher at risk of missing material which does not fall under the exact terms used, wide search terms were used and then the results were sorted by hand to ascertain which cases fell within the parameters chosen for the case studies (relevant to species protection (both criminal and civil), related to a location north of the Arctic Circle and dated since 2000). This was done by working through the search results and reading enough of each case to be able to come to a conclusion on whether or not it met the criteria for being included as a potential case study. Sorting the cases by hand, although more time consuming, meant that the risks of missing a relevant case were significantly reduced.

The only country where there was less access to a legal database was Greenland. This is because the Greenlandic legal system had, until recently, no system of court reporting at all. For cases conducted in the villages outside of Nuuk, reports were usually written, by hand, into a record book but these books are not publicly available. The law firms in Nuuk each keep their own records of the cases in which they have been involved but these records are jealously guarded as proprietary information. Cases which went to the Vestre Landsret (High Court for West Greenland), the court of appeal for Greenland prior to 2010, or the Højesteret (the Supreme Court of Denmark) were recorded in the Danish legal databases (which was available through Karnov Online) but almost nothing from the Greenlandic courts themselves was available. Since 2016, the Grønland Landsretten (Greenland High Court) has published summaries of its cases online. This means that for the first time, the

people of Greenland have access to information about legal cases, a move which is extremely important for the upholding the rule of law in Greenland. In order to try to find information about cases from before 2016, searches were conducted of the Greenlandic newspapers, published in Danish, to find reports of cases. There were no relevant cases found using this method and it is not clear whether this was because of limited reporting or because there were no cases to report. Requests were made to the Landsretten for access to their records but these were refused. However, one case, as is explained below, was emailed to the author by a summer assistant at the court as a result of these requests.

Below are set out the various databases and other sources used in the research for each country and the search terms which were used.

Country	Source	Search Terms	Restrictions	Results
USA	Lexis Nexis online legal database	Arctic and Environment	Alaska federal courts (including Alaska District Court, 9 th Circuit Court of Appeals, US Supreme Court); Alaska State courts; Since 2000	94 cases, of which 22 were relevant to the wider environmental law database
USA	Lexis Nexis online legal database	Alaska and Environment	Alaska federal courts (including Alaska District Court, 9 th Circuit Court of Appeals, US Supreme Court); Environmental law practice area; Since 2000	389 cases, of which approximately 51 were relevant to the wider environmental law database
Canada	Westlaw online legal database	Arctic and Wildlife	Canada Cases and Decisions; Since 1999	39 cases, of which 5 were relevant to endangered species protection

Country	Source	Search Terms	Restrictions	Results
Canada	Westlaw online legal database	“Yukon Wildlife Act”	Canada Cases and Decisions; Since 1999	11 cases of which 1 was relevant to endangered species protection
Canada	Westlaw online legal database	“Species #at Risk Act” and Arctic	Canada Cases and Decisions; Federal courts; Since 1999	6 cases of which 2 were relevant
Canada	Westlaw online legal database	“Species #at Risk Act” and Arctic	Canada Cases and Decisions; Yukon Courts; Nunavut Courts, Northwest Territories Courts; Supreme Court of Canada; Since 1999	5 cases of which 0 were relevant
Canada	Westlaw online legal database	“Marine Mammals Regulations”	Canada Cases and Decisions; Since 1999	13 cases, of which 3 were relevant (all from the same case)
Canada	Westlaw online legal database	“Northwest Territories Wildlife Act”	Canada Cases and Decisions; Since 1999	2 cases, of which 0 were relevant

Country	Source	Search Terms	Restrictions	Results
Canada	Westlaw online legal database	“Species #at Risk (NWT) Act”	Canada Cases and Decisions; Since 1999	2 cases, of which none were relevant
Canada	Westlaw online legal database	“Wildlife Act”	Canada Cases and Decisions; Since 1999	3 cases, of which 2 were relevant
Canada	Westlaw online legal database	“Migratory Birds Convention Act”	Canada Cases and Decisions; Since 1999	39 cases, of which 1 was relevant
Canada	Westlaw online legal database	Arctic and Wildlife	Canada Cases and Decisions; Since 1999	17 cases, of which 2 were relevant
Greenland	Karnov Online, online legal database for Denmark; MAD (Miljøretlige afgørelser og domme – environmental law decisions and judgments)	Grønland (Greenland)	Since 1998	44 cases, of which 2 were relevant to the wider environmental law database
Greenland	Karnov Online, online legal database for Denmark; UfR (Ugeskrift for Retsvæsen – weekly journal for the judicial system, publishing the key cases from the Supreme Court and High Courts)	Grønland miljø (Greenland environment)		81 results, of which 1 was relevant to the wider environmental law database

Country	Source	Search Terms	Restrictions	Results
Greenland	Online access to Greenland's newspaper, Sermitsiaq http://sermitsiaq.ag	Miljø domstol (environmental court)	Reports go back to 2011	4 results, of which none were relevant
Greenland	Online access to Greenland's newspaper, Sermitsiaq http://sermitsiaq.ag	Miljø retten (environment, law)	Reports go back to 2011	No relevant cases
Greenland	Online access to Greenland's newspaper, Sermitsiaq http://sermitsiaq.ag	Landsretten (High Court)	Reports go back to 2011	25 pages of results, no relevant cases
Greenland	Case summaries on the website of the Greenlandic court system www.gl.dk.domstol.dk		Reports go back to 2016 (covering cases started since 2014)	All pages translated and sorted by hand, one relevant case

Country	Source	Search Terms	Restrictions	Results
Greenland	Case summaries of the High Court of West Greenland (Greenland's appeal court prior to 2010) www.domstol.dk	Miljø (environment)	Reports go back to 2007	No relevant results
Greenland	Case summaries of the High Court of West Greenland (Greenland's appeal court prior to 2010) www.domstol.dk	Grønland	Reports go back to 2007	No results
Greenland	Website of Natur og Miljølagenævnet (the Nature and Environment Board) www.nmknafgoerelser.dk	Grønland	Existed from 20122 - 2017	No relevant results

Country	Source	Search Terms	Restrictions	Results
Greenland	Website of Klagecenter for Fødevarer, Landbrug og Fiskeri (Complaint Centre for Food, Agriculture and Fisheries) http://fkcafgoerelser.dk	Grønland	Cases from 2012-2017	No relevant results
Greenland	Website of the Danish Nature Protection Board which publishes list of principle decisions of the board	Grønland	Cases go back to November 1993	No results
Greenland	Decision portal of the Danish Environment and Food Board	Grønland	Cases go back to February 2017	No results
Finland	Finlex, public online legal database for Finland https://www.finlex.fi	Luonnonsuojelulaki (Nature Conservation Act)	Case law; Supreme Court; Supreme Administrative Court	6 results from the Finnish Supreme Court, 188 results from the Supreme Administrative Court

Country	Source	Search Terms	Restrictions	Results
Finland	Finlex, public online legal database for Finland https://www.finlex.fi	Luonnonsuojelulaki ja lapin (Nature Conservation Act and Lapland)	Case law; Supreme Court; Supreme Administrative Court	19 results, of which 1 was relevant
Finland	Finlex, public online legal database for Finland https://www.finlex.fi	Metsästyslaki (Hunting Act)	Case law; all courts	48 results, of which 5 were relevant
Finland	Finlex, public online legal database for Finland https://www.finlex.fi	Metsästyslaki ja lapin (Hunting Act and Lapland)	Case law; all courts	11 results, of which 3 were relevant
Finland	Finlex, public online legal database for Finland https://www.finlex.fi	Rovaniemen (Rovaniemi)	Hovioikeus (Court of Appeal)	350 results, translated then sorted by hand to find relevant cases, 5 relevant cases found

Country	Source	Search Terms	Restrictions	Results
Sweden	Lagrummet, public online legal database for Sweden www.lagrummet.se	Artskyddsförordning och Norrbotten (Species Protection Ordinance and Norrbotten)		2 results, none of which were relevant
Sweden	Lagrummet, public online legal database for Sweden www.lagrummet.se	Jaktförordning (Hunting Regulation)		18 results, none of which were relevant
Sweden	Lagrummet, public online legal database for Sweden www.lagrummet.se	Björn och Övre Norrland (Bear and Upper Norrland)		9 results, none of which were relevant
Sweden	Lagrummet, public online legal database for Sweden www.lagrummet.se	Björn, Varg, Järv, Lo och Kungsörn (Bear, Wolverine, Wolf, Lynx and Golden Eagle)		5 results, none of which were relevant

Country	Source	Search Terms	Restrictions	Results
Sweden	Lagrummet, public online legal database for Sweden www.lagrummet.se	Artskyddsförordning och Norrland (Species Protection Ordinance and Norrland)		6 results, none of which were relevant
Sweden	Lagrummet, public online legal database for Sweden www.lagrummet.se	Jaktlagen och Övre Norrland (Hunting Act and Upper Norrland)		8 results, none of which were relevant
Sweden	Lagrummet, public online legal database for Sweden www.lagrummet.se	Miljöbalk och Övre Norrland (Environmental Code and Upper Norrland)		11 results, none of which were relevant
Sweden	Lagrummet, public online legal database for Sweden www.lagrummet.se	Arktisk (Arctic)		3 results, none of which were relevant

Country	Source	Search Terms	Restrictions	Results
Sweden	Lagrummet, public online legal database for Sweden www.lagrummet.se	Djur och Övre Norrland (Animal and Upper Norrland)		17 results of which 2 were relevant
Sweden	Lagrummet, public online legal database for Sweden www.lagrummet.se	Växter och Övre Norrland (Plants and Upper Norrland)		10 results, none of which were relevant
Sweden	Lagrummet, public online legal database for Sweden www.lagrummet.se	Nationalpark och Övre Norrland (National Park and Upper Norrland)		1 result, which was not relevant

Country	Source	Search Terms	Restrictions	Results
Norway	Lovdata Pro, online legal database for Norway https://lovdata.no/pro	Naturmangfold (Nature Diversity Act)	Cases go back to 2005; Hålogaland Lagmannsrett (Hålogaland Court of Appeal) and associated district courts; Supreme Court of Norway	98 cases, of which 19 were relevant
Norway	Lovdata Pro, online legal database for Norway https://lovdata.no/pro	Havressurlov (Marine Resources Act)	Cases go back to 2005; Hålogaland Lagmannsrett (Hålogaland Court of Appeal) and associated district courts; Supreme Court of Norway	58 cases
Norway	Lovdata Pro, online legal database for Norway https://lovdata.no/pro	Viltlov (Law on Hunting)	Since 1999; Hålogaland Lagmannsrett (Hålogaland Court of Appeal) and associated district courts; Supreme Court of Norway	83 cases

Country	Source	Search Terms	Restrictions	Results
Norway	Lovdata Pro, online legal database for Norway https://lovdata.no/pro	Svalbardmiljøloven (Svalbard Environmental Act)	Cases go back to 2004	9 cases
Norway	Lovdata Pro, online legal database for Norway https://lovdata.no/pro	Reindriftsloven (Reindeer law)		121 cases
Norway	Lovdata Pro, online legal database for Norway https://lovdata.no/pro	Isbjørnloven (Polar bear law)		1 case but as it was from 1978 it was not included in the database

For the USA and Canada, the databases listed separate decisions in each case, even minor administrative decisions, as separate cases. In the other countries studied, these administrative matters are not made public. It means, however, that in the USA and Canada, the number of results is higher than the overall number of cases. In addition, some cases showed up in more than one search so the number of results across the searches is also higher than the overall number of cases.

Only one relevant case was found for Greenland using the search terms indicated. The second Greenlandic case which is included as a case study was emailed to the author by Mike Villadsen, a summer assistant at the Grønlands Landsret (Greenland High Court), following emails sent by the author to the court to request information about relevant cases.

From the research outlined above, the cases were entered into the database on endangered species cases in the Arctic. Although it is as comprehensive as was achievable, is not possible to say that this database includes every species protection case which has occurred north of the Arctic Circle in the last two decades. This is for a number of reasons. Firstly, the number and type of cases which are reported differs with each country with countries like the USA reporting every administrative decision and countries like Sweden only publishing decisions which are ‘considered to be indicative’.²⁶⁹ Secondly, each jurisdiction reports cases from different levels of courts. In the USA it is possible to get reported cases from every District Court at both federal and state level whereas in Finland, only cases from the higher levels of courts, the Court of Appeal and the Finnish Supreme Court are reported. As most cases are not appealed or are not granted permission to appeal, not reporting first instance cases dramatically reduces the number of cases. Thirdly, the relative sizes of the Arctic regions of the six countries included in this study are very different, with the Swedish Arctic being much smaller than the Canadian Arctic and Alaska being much bigger than Svalbard. The larger the area, the more opportunities there are for court cases to be needed. Finally, court reporting, and particularly online access to court reporting, has dramatically improved in the last two decades. While the USA has online court reporting dating back to 1999, in Greenland the reports of the Greenlandic court system only go back

²⁶⁹ Legal Information Ordinance (2009:175) ss 6–7.

as far as 2014. There are, therefore, more cases available for countries which have had online reporting for a longer period of time.

Once the database was completed, two cases for each country were selected to be case studies. For some countries, such as Sweden and Greenland there were so few relevant cases that no selection needed to take place. For the countries where there were more than two relevant cases, the aim of the selection process was to choose a representative sample of cases, both legally and geographically, which demonstrated something of the approach of the courts in each jurisdiction. A third case was included for the USA because it provides an interesting change from the other cases included for America and it would have been a shame to exclude it. The choices involved in a selection such as this are, by necessity, subjective and it is acknowledged that other cases could easily have been selected; the cases which became case studies are merely to illustrate the ‘law in practice’ of the country.

2.8.9. Accuracy Date

Law is a constantly changing entity. The law in this thesis is correct (to the best of the author’s ability) and updated to the hand-in date of 7 August 2019.

There were a number of changes which took place in the days and weeks immediately following this date including, but not limited to, significant revisions to the regulations which implement the Endangered Species Act of the United States.²⁷⁰ The amendments remove automatic protections for threatened species, make changes to the way in which the concept of ‘foreseeable future’ should be defined in relation to climate change predictions, change the factors which should be taken into account when delisting a species and alter the factors which should be considered in the designation of unoccupied critical habitat.²⁷¹ These revisions will result in substantial weakening of the protections granted to species in the USA, in favour of a lower regulatory burden for landowners. Some of the changes, such as the change to the definition of ‘foreseeable future’ are notable because they appear to have been made in direct response to the legal cases highlighted in this thesis regarding

²⁷⁰ Endangered Species Act of 1973, 93 P.L. 205, 87 Stat. 884, 16 USC § 1531-1544; Regulations for Prohibitions to Threatened Wildlife and Plants, 84 Federal Register 44,753 (27 August 2019); Regulations for Listing Species and Designating Critical Habitat, 84 Federal Register 45,020 (27 August 2019).

²⁷¹ Regulations for Listing Species and Designating Critical Habitat, 84 Federal Register 45,020 (27 August 2019); Regulations for Prohibitions to Threatened Wildlife and Plants, 84 Federal Register 44,753 (27 August 2019).

the protection of ice dependent species such as polar bears and ice seals (see appendix A.6 below). A lawsuit challenging the revisions has already been filed. Other changes include the issuing of summary judgment in the case of *Center for Biological Diversity v Zinke/Bernhardt* on the protection status of the Pacific Walrus (see appendix A.6.3 below) and the signing, on 15 August 2019, of an agreement-in-principle regarding an agreement to devolve powers over land and resource management to Nunavut.²⁷²

2.9. Conclusion

In 1871, giving a lecture at Oxford, Henry Maine said that ‘by the examination and comparison of laws, the most valuable materials are obtained for legal improvement. There is no branch of judicial enquiry more important than this, and none from which I expect that the laws of our country will ultimately derive more advantage’.²⁷³ Comparative law is an important tool by which a researcher can discover the law in one country and compare it to the law in another country for one a number of different purposes but usually in order to make suggestions as to how one legal system can be improved learning lessons from another legal system. In a world that is increasingly interrelated this is a vital but difficult task. In this project, the tools of comparative law, in particular those of functional method and the process designed by John Reitz have been used to conduct a comparative legal study of the endangered species protection laws of the Arctic nations of Europe and North America. By following the methodological framework and the comparative method outlined in this chapter, and through awareness of the limitations of comparative law along with the efforts made to avoid the worst of those limitations, it has been possible to compare and contrast the endangered species protection laws in the Arctic in a way which is accurate and rigorous, which provides answers to the research questions set out at 1.2 above and which makes suggestions for the benefit of national policy makers about improvements which could be made to the laws of the various jurisdictions, particularly given the environmental threats changes which the Arctic is experiencing and which are predicted to get worse in the coming years.

²⁷² *Center for Biological Diversity v Bernhardt*; Crown Indigenous Relations and Northern Affairs Canada, ‘Nunavut Devolution’ (*Government of Canada*, 15 August 2019) <<https://www.rcaanc-cirnac.gc.ca/eng/1352471770723/1537900871295>> accessed 22 January 2020.

²⁷³ Maine (n 129) 5.

3. Country Studies

3.1. Introduction

The first part of the method for comparative law developed for this study from Kamba's method is the descriptive phase. This takes the form of country studies for each of the six Arctic nations included in this project – the United States of America, Canada, Greenland, Norway, Sweden and Finland. As was explained at 2.8.6 above, the studies include details of the history and geography of the country, its legal system, the wildlife found in its Arctic region and the legislation, regulations and other legal instruments used to protect species and habitats within that country. The studies also include case studies which are taken from legal cases which have been before the courts in the last twenty years, which relate to endangered species protection and the subject matter of which is located north of the Arctic Circle. This descriptive phase is then used as the basis on which the comparative work can be conducted. The country studies also provide answers to the first two research questions, about the endangered species protection laws which exist in the Arctic nations and about the cases which have been brought before the courts.

For reasons of space, it is not possible to include the full country studies in the main body of the text and this chapter therefore only contains an introductory overview of the countries. The full versions of the country studies, organised geographically from west to east, can be found in appendices A to F. The comparative analysis which follows in chapter four assumes knowledge from the full country studies.

3.2. United States of America

The United States of America's Arctic land is located entirely in the state of Alaska. It is a vast, wild and almost untouched land with very few communities. There are few roads and, despite a lot of debate about industrial development, fairly little infrastructure. It is therefore the ideal habitat for Arctic species including polar bear, moose, caribou, Arctic fox, seal, whale, ptarmigan and hundreds of thousands of species of migratory birds. Wildlife protection in the United States' Arctic takes two forms. The first is the protection afforded to endangered and threatened species through the Endangered Species Act of 1973.²⁷⁴ This act allows for the listing of species as either endangered or threatened and

²⁷⁴ Endangered Species Act 1973.

provides various protections for species once listed. The federal protection is also mirrored in state protection for Endangered Species. Individual species protection mechanisms can also be found in the Marine Mammal Protection Act of 1972 and in the Migratory Birds Treaty Act of 1918.²⁷⁵ The second way in which wildlife is protected is by way of habitat protection, on the basis that if an ecosystem on which a species relies is protected, then that species will also be protected.²⁷⁶ There are a number of federally protected lands in the Arctic which provide wildlife protection both directly through regulation and indirectly through the protection of habitats critical to the survival of various species. Space does not permit a discussion of every rule which protects wildlife in the American Arctic; the country study focuses primarily on the Endangered Species Act and land designation for habitat protection. It also, more briefly, discusses the Marine Mammal Protection Act, the Migratory Birds Treaty Act and considers the hunting regulations in Alaska.

The case studies at the end of the American country study demonstrate something of the way in which the US system works in practice. In the search for endangered species protection cases in Alaska, at a federal and state level, the cases found were predominantly public law cases with various groups, organisations and individuals challenging decisions made by the government which could affect their livelihoods, their industry, their food source or their environment.²⁷⁷ These cases, all of which were lengthy and complex, outweighed the prosecutions for hunting infractions. The cases chosen demonstrate the political nature of the US court system, with the Alaska District Court frequently finding for industry and the more left wing Ninth Circuit choosing to side with the environmental organisations. It will be interesting to see the approach which the courts take over the Pacific walrus case as this reverses the pattern seen in the polar bear and ice seal cases.²⁷⁸ Instead of the industrial plaintiffs challenging a decision to list a species on the basis of the

²⁷⁵ Marine Mammal Protection Act of 1972, 16 USC ch 31, §§ 1361-1423h chp 31; Migratory Birds Treaty Act of 1918, 16 USC §§ 703-712.

²⁷⁶ Robert V Percival and others, *Environmental Regulation: Law, Science, and Policy* (8th edition, Wolters Kluwer Law & Business 2018) ch 9, pp 1–2.

²⁷⁷ *Center for Biological Diversity v Salazar (In re Polar Bear Endangered Species Act Listing)* 794 F Supp 2d 65 (DDC 2011); *Safari Club International v Salazar (In re Polar Bear Endangered Species Act Listing & Section 4(d) Rule Litigation - MDL No 1993)* [2013] 404 US App DC 171, 709 F3d 1; *Alaska Oil & Gas Association v Salazar* 916 F Supp 2d 974 (District of Alaska 2013); *Alaska Oil & Gas Association v Jewell* (n 8).

²⁷⁸ 'Lawsuit Launched Against Trump Administration for Denying Pacific Walrus Endangered Species Act Protection' <http://www.biologicaldiversity.org/news/press_releases/2017/pacific-walrus-10-12-2017.php> accessed 14 October 2017.

threat of climate change, the case shows the environmental organisations challenging a decision not to list the Pacific walrus, on the basis that although it may be threatened by sea ice loss, a shift in behaviour patterns has been observed which will enable the walrus to adapt to changing conditions in the Arctic (see A.6.3 below).²⁷⁹ If the courts follow their previous approach of showing deference to the federal agencies then they will need to uphold the decision not to list the walrus, which in itself is a decision which is in direct contradiction with the previous decisions to list species as threatened on the basis of climate change predictions.

3.3. Canada

Stretching from the border of Alaska, right across to the Atlantic Ocean, the Arctic region of Canada covers an enormous area of land, sea, islands and sea ice.²⁸⁰ The most northerly point of Canada, Cape Columbia on Ellesmere Island, lies at 83°N and is only 769km from the north pole.²⁸¹ A little further south, the military installation at Alert is considered to be the most northerly inhabited place in the world.²⁸² The majority of people living in Arctic Canada are indigenous people who maintain strong cultural ties to the natural world which surrounds them.²⁸³ Many of these communities are now the beneficiaries of comprehensive land claim agreements which have settled the land claims of indigenous people, have secured the right of indigenous people to maintain their traditional lifestyles and have enabled them to take control of species protection in their local areas through wildlife management boards.²⁸⁴

²⁷⁹ U. S. Fish and Wildlife Service, 'After Comprehensive Review, Service Determines Pacific Walrus Does Not Require Endangered Species Act Protection' <https://www.fws.gov/news/ShowNews.cfm?ref=after-comprehensive-review-service-determines-pacific-walrus-does-not-&_ID=36158> accessed 24 July 2019; 'Why Changing Pacific Walrus Haulout Habits Are Worrying' (*Oceans Deeply*) <<https://www.newsdeeply.com/oceans/articles/2017/08/31/why-changing-pacific-walrus-haulout-habits-are-worrying>> accessed 14 October 2017.

²⁸⁰ *The Times Comprehensive Atlas of the World* (14th edn, The Times 2014) 99.

²⁸¹ *ibid.*

²⁸² 'CFS Alert' <<http://jproc.ca/rrp/alert.html>> accessed 15 February 2019.

²⁸³ Robert M Bone, *The Regional Geography of Canada* (2nd edn, Oxford University Press 2002) 488.

²⁸⁴ Comprehensive Land Claim Agreement between Her Majesty the Queen in Right of Canada and the Gwich'in as Represented by the Gwich'in Tribal Council 1992; Comprehensive Land Claim Agreement between Her Majesty the Queen in Right of Canada and the Dene of Colville Lake, Deline, Fort Good Hope and Fort Norman and the Metis of Fort Good Hope, Fort Norman and Norman Wells in the Sahtu Region of the Mackenzie Valley as Represented by the Sahtu Tribal Council 1993; Land Claims and Self-Government Agreement Among the Tłı̨chǫ and the Government of the Northwest Territories and the Government of Canada 2003; Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada 1993; Umbrella Final Agreement between the Government of Canada, the Council for Yukon Indians and the Government of the Yukon 2006; Inuvialuit Final Agreement between the

Species protection in Canada is managed and regulated at both a federal level and a territorial level. The main federal legislation is the Species at Risk Act 2002 which provides a system by which species at risk of becoming extinct can be identified, listed and protected.²⁸⁵ The federal legislation on species protection also provides for the protection of migratory birds through the Migratory Birds Convention Act 1994 and for marine mammals through the Marine Mammal Regulations 1993.²⁸⁶ The protection of the Species at Risk Act 2002 only applies to land which is under the authority of the federal government and so each of the three territories with land in the Arctic also have their own legislation which, to a greater or lesser extent, provides a level of species protection on territorial land.²⁸⁷ The Northwest Territories has a system of identifying species at risk which reflects the federal system but in the Yukon the system is much weaker and in Nunavut, it has yet to be brought into force.²⁸⁸ All three territories, however, have well developed regulations regarding hunting, trapping and harvesting of species, which provide a certain level of protection through closed seasons, licences and harvesting quotas.²⁸⁹ As well as its various systems of species protection, Canada has a well developed system of habitat protection, with, at a federal level, National Parks, National Wildlife Areas and Migratory Bird Sanctuaries.

The two case studies included in the Canadian country study, purely for reasons of space, are both federal cases as these show the approach of the national courts which applies to federal land in all three territories. The first case relates to the hunting of snow geese which were becoming overabundant in the Arctic and damaging the ecosystem.²⁹⁰ Permission was granted for the hunting of snow geese in their spring habitats before they moved north to the Arctic.²⁹¹ As Ross' Geese are almost indistinguishable from snow geese, the

Committee for Original Peoples' Entitlement, Representing the Inuvialuit of the Inuvialuit Settlement Region and the Government of Canada 1984.

²⁸⁵ Species at Risk Act 2002.

²⁸⁶ Migratory Birds Convention Act 1994; Marine Mammal Regulations 1993.

²⁸⁷ Species at Risk Act 2002; Yukon Wildlife Act 2002; Species at Risk (NWT) Act 2009; Nunavut Wildlife Act 2003.

²⁸⁸ Yukon Wildlife Act 2002; Species at Risk (NWT) Act 2009; Nunavut Wildlife Act 2003.

²⁸⁹ Yukon Wildlife Act 2002; Northwest Territories Wildlife Act 2013; Nunavut Wildlife Act 2003.

²⁹⁰ *Animal Alliance of Canada v Canada (Attorney General)* [1999] 4 Federal Court 72; *Animal Alliance of Canada v Canada (Attorney General)* [2000] Federal Court Judgments No 1419.

²⁹¹ *Animal Alliance of Canada v Canada (First Instance)* (n 290); *Animal Alliance of Canada v Canada (Appeal)* (n 290).

permission was extended to Ross' Geese.²⁹² The court (at first instance) found that the decision was lawful in relation to snow geese as there was a specific problem with this species but that it was unlawful to extend the hunt to Ross' Geese which were not causing harm.²⁹³ There was also an argument about the lack of consultation of indigenous people but this was dismissed as insufficient evidence of an infringement of indigenous rights was provided.²⁹⁴ The second case, to do with a permit to conduct seismic testing in the Arctic waters, which was predicted to cause harm to marine mammals including narwhal and other species which the local people had treaty rights to hunt for food, was another example of a case relating to consultation with indigenous people.²⁹⁵ These cases demonstrate that Canada takes its obligations to consult with the various indigenous groups seriously and that the federal government no longer considers itself able to enforce its decisions on indigenous nations without consultation. In this case, the lack of consultation was fatal to the permit and it was overturned by the Supreme Court.²⁹⁶

3.4. Greenland

500 miles south of the North Pole lies Greenland, an island misleadingly named by the exiled Eirike Þorvaldsson (Eric the Red) to attract Icelandic settlers in 982 AD.²⁹⁷ The island dominates the northern Atlantic Ocean, between Canada, which lies just across Baffin Bay, and Iceland, to the east.²⁹⁸ It is almost entirely covered by an enormous ice cap which makes over 80% of the island uninhabitable; the small communities, and the larger capital, Nuuk, cling to the rocky cliffs along the coastline. Greenland's far northern location, with Peary Land and *Inuit Qeqertaat* or Kaffeklubben Island considered to be the

²⁹² *Animal Alliance of Canada v Canada (First Instance)* (n 290); *Animal Alliance of Canada v Canada (Appeal)* (n 290).

²⁹³ *Animal Alliance of Canada v Canada (First Instance)* (n 290); *Animal Alliance of Canada v Canada (Appeal)* (n 290).

²⁹⁴ *Animal Alliance of Canada v Canada (First Instance)* (n 290); *Animal Alliance of Canada v Canada (Appeal)* (n 290).

²⁹⁵ *Clyde River (Hamlet) v TGS-NOPEC Geophysical Co ASA* 2015 FCA 179; *Clyde River (Hamlet) v Petroleum Geo-Services Inc* 2017 SCC 40.

²⁹⁶ *Animal Alliance of Canada v Canada (First Instance)* (n 290); *Animal Alliance of Canada v Canada (Appeal)* (n 290).

²⁹⁷ Julius E Olson and Edward Bourne (eds), 'The Saga of Eric the Red', *The Northmen, Columbus and Cabot, 985-1503: The Voyages of the Northmen; The Voyages of Columbus and of John Cabot* (Charles Scribner's Sons 1906); Warren Unna, '...While Misnamed Greenland Plays for a Draw with the Ice' *The New York Times* (10 December 1972) <<https://www.nytimes.com/1972/12/10/archives/-while-misnamed-greenland-plays-for-a-draw-with-the-ice-misnamed.html>> accessed 16 April 2019; David Crantz, *The History of Greenland* (Facsimile Reprint, First Edition 1765, First English Edition 1820, Cambridge University Press 2014) 223–224.

²⁹⁸ *The Times Comprehensive Atlas of the World* (n 280) 99, 131.

most northerly land in the world, and Arctic climate provides the perfect habitat for many Arctic species including musk ox, polar bear, wild reindeer, Arctic fox and many others.²⁹⁹ The icy coastal waters are rich with marine mammals such as narwhal, whales, seals and walrus.³⁰⁰

Greenland, formerly a Danish colony and now a constituent part of the Kingdom of Denmark, enjoys Self Government with direct autonomy for a number of aspects of governmental responsibility, including nature conservation and the environment.³⁰¹ Like the other Arctic nations, species protection in Greenland is divided between direct species protection and the protection of habitats. The Greenlandic species protection is based on a framework act, Act No 29 of 18 December 2003 on Nature Protection, with individual orders which provide more detailed rules for the protection for each species to be protected.³⁰² However the Greenlandic government, although authorised to do so under the act, has not enacted species protection beyond terrestrial mammals, marine mammals and birds; no insects or plants are protected.³⁰³ Although almost all of the mammals and birds in Greenland are protected in some form, there are few which are completely protected. Hunting and taking is allowed for most species of mammal and for a number of species of birds on the basis that it is a traditional part of Greenlandic culture and traditional foods such as whale, seal and reindeer form a substantial part of the diets of many Greenlanders.³⁰⁴

Habitat protection in Greenland takes the form of one enormous national park, the largest national park in the world, which is found in the north-eastern quarter of the island and which provides an almost untouched wilderness habitat for many Arctic species.³⁰⁵ There

²⁹⁹ 'Kalaallit Nunaat High Arctic Tundra' (*World Wildlife Fund Ecoregions*)

<<https://www.worldwildlife.org/ecoregions/na1112>> accessed 8 April 2019.

³⁰⁰ *ibid.*

³⁰¹ Bent Ole Gram Mortensen, 'The Self-Government and the Overall Framework Concerning Greenland', *Responsibilities and Liabilities for Commercial Activity in the Arctic: The Example of Greenland* (Routledge 2016) 12–14; Danish Act No 577 of 29 November 1978 on Greenland Home Rule.

³⁰² Landsting Act No 29 of 18 December 2003 on Nature Protection (Landstingslov Nr 29 af 18 December 2003 om Naturbeskyttelse); Endangered Species Act 1973.

³⁰³ Act on Nature Protection 2003.

³⁰⁴ Jens Dahl, 'The Integrative and Cultural Role of Hunting and Subsistence in Greenland' (1989) 13 *Études/Inuit/Studies* 23.

³⁰⁵ Landsting Act No 11 of 12 November 1980 on Nature Conservation in Greenland (Landstingslov Nr 11 af 12 November 1980 om Naturfredning i Grønland) s 15; Landsting Act No 15 of 9 November 1988 on the Amendment of the Act on Nature Conservation in Greenland; Home Rule Order No 7 of 17 June 1992 on the National Park in North and East Greenland.

are also a small number of other protected nature reserves and other similar areas, particularly around the Ilulissat Icefjord and Disko Bay area as well as some protected wetland areas, specific protections for bird colonies and 40 designated bird protection areas.³⁰⁶

There are very few reported legal cases in Greenland. Partly this is because until very recently no cases were reported at all, except in the local newspaper. Case records in the remote communities were (and still are) kept in handwritten books and there was (and is) no access to the court's records, even for Greenlandic lawyers. Lawyers in Greenland keep their own records but do not share them as they are considered to be proprietary information. Recently the Grønlands Landsret has begun providing summaries of cases heard by the court on its website. Only two species protection cases were found for the Greenlandic Arctic in the past twenty years, one case of a hunting offence involving a polar bear and one offence of egg collecting and disturbing a colony of Arctic terns.³⁰⁷ The courts in both of these cases seem to take a fair approach to the environmental harm caused, taking into account whether the defendant intended to commit the offence and imposing a fairly large fines on the basis that both crimes were deemed to be intentional.³⁰⁸ A fair approach with a focus on intention would be expected of the Greenlandic courts given the traditional values of community, justice and rehabilitation rather than punishment that have been adopted from the indigenous legal system.

3.5. Norway

In the far northwest of Europe, and with territory spreading deep into the Arctic lies the Kingdom of Norway. Its Arctic region is split across three distinct areas: the mainland of Norway, the archipelago of Svalbard to the north and the island of Jan Mayen in the west. The entire northern coastline of Norway faces the Arctic Ocean, providing Norway with a significant amount of Arctic territorial waters. The three Arctic land masses are distinct

³⁰⁶ Home Rule Order No 10 of 15 June 2007 on the Conservation of Ilulissat Icefjord (Hjemmestyrets Bekendtgørelse Nr 10 af 15 Juni 2007 om Fredning af Ilulissat Isfjord); Self Government Order No 12 of 1 June 2016 on the Protection of Greenland's Internationally Designated Wetlands and Protection of Certain Waterfowl Species (Selvstyrets Bekendtgørelse Nr 12 af 1 Juni 2016 om Beskyttelse af Grønlands Internationalt Udpegede Vådområder og Beskyttelse af Visse Vandfuglearter); Self Government Order No 1 of 5 January 2017 on the Protection and Capture of Birds (Selvstyrets Bekendtgørelse Nr 1 af 5 Januar 2017 om Beskyttelse og Fangst af Fugle).

³⁰⁷ *Prosecutors v X1* [2017] (Case No 171/17); *Prosecutors v T* [2016] (Case No K 170/15).

³⁰⁸ *Prosecutors v X1* (n 307); *Prosecutors v T* (n 307).

from each other in location, history, geography and geopolitics and have three separate legal systems governing the protection of species. In Norway, information about endangered and threatened species is provided by the production, every five years or so, of a national Red List which identifies those species which are at risk of extinction in Norway; a separate list is produced for Svalbard.³⁰⁹ The Red List provides no protection or management for species, it merely provides information for decision makers.³¹⁰ Species are instead protected under the Nature Diversity Act of 2009, which protects all wild species unless there is other statutory authority to hunt or trap them.³¹¹ Such authority is usually found in the Wildlife Act of 1981 or in regulations made under that act and these provisions are discussed in this chapter.³¹² There are very few species in Norway which are directly protected but there are four Arctic species which are protected as priority species.³¹³ The protection of marine mammals is governed by the Marine Resources Act and polar bears located outside of Svalbard are protected under the Act on the Conservation and Capture of Polar Bears; both of these acts are considered in this chapter.³¹⁴ In Svalbard, species protection is governed by the Svalbard Environmental Protection Act which covers both species protection and allowable harvesting.³¹⁵ The situation is different in Jan Mayen where the entire island is protected as a Nature Reserve and species protection is therefore included in the terms of the habitat protection.³¹⁶

Species protection in Norway consists of the species protection measures outlined above, and also habitat protection in the form of national parks, nature reserves and other protected land. On the mainland, these are created by and under the Nature Diversity Act and on

³⁰⁹ *Norwegian Red List of Species* (Norwegian Biodiversity Information Centre 2015).

³¹⁰ Snorre Henriksen and Olga Hilmo, *The Norwegian Red List of Species: Methods and Results* (Norwegian Biodiversity Information Centre 2015) 14.

³¹¹ Act of 19 June 2009 No 100 Relating to the Management of Biological, Geological and Landscape Diversity (Lov om Forvaltning av Naturens Mangfold) 2009.

³¹² Act of 29 May 1981 No 38 Relating to Wildlife and Wildlife Inhabitants.

³¹³ '13 Priority Species' <<http://www.miljostatus.no/goals/1.-biodiversity/target-1.2/number-of-priority-species-in-the-following-major-ecosystems-marine-and-coastal-waters-rivers-and-lakes-wetlands-forest-mountains-and-cultural-landscapes/13-priority-species/>> accessed 24 August 2018.

³¹⁴ Act of 6 June 2008 No 37 Relating to the Management of Wild Living Marine Resources (Havressursloven); Act of 22 March 1957 No 4 on the Conservation and Capture of Polar Bears (Lov om fredning og fangst av isbjørn).

³¹⁵ Act of 15 June 2001 No 79 Relating to the Protection of the Environment in Svalbard (Svalbardmiljøloven).

³¹⁶ Regulations of 19 November 2010 No 1456 on the Conservation of the Jan Mayen Nature Reserve (Forskrift om Fredning av Jan Mayen Naturresevat).

Svalbard, there are similar provisions in the Svalbard Environmental Protection Act.³¹⁷ Jan Mayen is different because the whole island was declared a nature reserve in 2010.³¹⁸

The selection of cases for the Norwegian country study was difficult, partly because of the different jurisdictions which Norway covers and partly because there was a fairly large number of cases from which to choose. The two cases chosen represent one case from Svalbard and one case from mainland Norway.³¹⁹ The Svalbard case is a good example of how strictly the environmental protection laws are enforced on Svalbard. Firstly, the defendant was prosecuted for failing to lodge a route plan and not holding insurance.³²⁰ Then, when a documentary showed that the expedition had come close to at least one polar bear and had had to shoot at it to scare it away, a further prosecution was brought.³²¹ The Court of Appeal overturned an earlier sentence on the basis that it was too lenient and said that the behaviour must be punished even though the defendant had acted bravely.³²² Environmental protection is taken extremely seriously on Svalbard and this is demonstrated through the strict approach of the courts. The mainland case used as a case study also demonstrates a strict approach from the courts, with the Court of Appeal refusing to believe that the defendant had not altered his harpoon grenades so that they did not explode and could be reused.³²³ The court was, however, split on whether using the harpoons amounted to a breach of the regulations when the outcome was that the whales were killed instantaneously.³²⁴ A smaller fine was levied than in the Svalbard case study but the court took into account the significant costs already imposed on the defendant through a hunting ban and the confiscation of his catch.³²⁵ With these taken into account, the punishment is fairly severe and shows a willingness of the Norwegian courts to enforce environmental protection.³²⁶

³¹⁷ Nature Diversity Act; Svalbard Environmental Protection Act 2001.

³¹⁸ Jan Mayen Nature Reserve Regulations 2010.

³¹⁹ *Attorney General in Troms and Finnmark v A* [2004] Agder Court of Appeal LA-2004-24268; *Nordland Public Prosecutor's Office v A* [2011] Hålogaland Court of Appeal LH-2011-37324.

³²⁰ *Attorney General in Troms and Finnmark v A* (n 319).

³²¹ *ibid.*

³²² *ibid.*

³²³ *Nordland Public Prosecutor's Office v A* (n 319).

³²⁴ *ibid.*

³²⁵ *ibid.*

³²⁶ *ibid.*

3.6. Sweden

The Kingdom of Sweden lies on the eastern part of the Scandinavian peninsula, bordered to the west and north by Norway and to the east by Finland. It has no Arctic coastline and has a comparatively small area of land located within the Arctic. The most northerly county in Sweden is Norrbotten County.³²⁷ All of Sweden's Arctic is located within this county although the county also extends south of the Arctic Circle.³²⁸ Swedish counties are separated into municipalities and there are seven municipalities which are located either partly or entirely north of the Arctic Circle, namely Kiruna, Gällivare, Jokkmokk, Arjeplog, Pajala, Övertornea and Övertornea municipalities.³²⁹ The most southerly point of Norrbotten County is at 65°N.³³⁰

Species protection in Sweden takes two forms, direct species protection and the protection of habitats. This aligns with the system found throughout the European Union, of which Sweden is a member. The overarching environmental policy within Sweden is found within the National Environmental Objectives which set out the type of environment the Swedish people wanted to leave to the next generation, along with objectives and milestone targets to ensure that the generational goal is met.³³¹ The majority of Swedish environmental law is now found in the Swedish Environmental Code, a comprehensive codification of a number of different environmental laws.³³² The code itself only provides a framework, particularly for species protection but this framework authorises the Swedish government to issue rules and regulations to expand upon the rules.³³³ This the government has done through the issuing of the Species Protection Ordinance.³³⁴ The Species Protection Ordinance provides for the protection of species which are included in its annexes.³³⁵ Mostly these are the species included in the annexes of the Habitat and Species Directive and the Birds Directive but there are also a few species which are not

³²⁷ *The Times Comprehensive Atlas of the World* (n 280) 51.

³²⁸ *ibid.*

³²⁹ *ibid.*; 'Counties and Municipalities' (*Statistiska Centralbyrån*) <<http://www.scb.se/en/finding-statistics/regional-statistics/regional-divisions/counties-and-municipalities/>> accessed 10 October 2018; 'ACME Mapper 2.2' <<https://mapper.acme.com>> accessed 10 October 2018.

³³⁰ 'ACME Mapper 2.2' (n 329).

³³¹ Swedish Environmental Quality Objectives – An Environmental Policy for a Sustainable Sweden (Government Bill 1997/98:145).

³³² Swedish Environmental Code (Miljöbalk) (1998:808).

³³³ *ibid.*

³³⁴ Species Protection Ordinance (2007:845) (Artskyddsförordning).

³³⁵ *ibid.*

protected throughout Europe but are protected in Sweden.³³⁶ One of the main exception to the protections found under the Species Protection Ordinance is where hunting of a species is allowed. Hunting of species is carefully limited by the Hunting Act and the Hunting Ordinance with a general protection on all wild animals except in the times and places where hunting is specifically allowed.³³⁷ In addition to the protection of species, the main predator species within Sweden, bear, lynx, wolf, wolverine and golden eagle have species management plans in place to ensure that they are protected.³³⁸ As well as direct species protection, Sweden has a full system of habitat protection; the main forms of protection are designation as either a national park or a nature reserve and both forms of protection are discussed towards the end of the Sweden country study.

There were remarkably few cases on endangered species protection in the Swedish Arctic. In the end, two hunting case were found but the two case studies provided the only relevant cases in Sweden. The cases both deal with moose hunting on land managed by hunting associations. In the first, the defendant had shot a female moose without permission and in the second, the hunters had hunted despite not being granted a share of their hunting association's quota.³³⁹ In the first case, the court of first instance found that the defendant's behaviour had been accidental but the court of appeal did not believe him. This is similar to the Greenlandic case where the first instance court believed that the hunter who shot two polar bears had done so accidentally but the court of appeal disagreed.³⁴⁰ This may demonstrate different approaches of trial courts and appeal courts, either as a result of local familiarity leading to empathy with the mistake from a more local tribunal, or a greater level of expertise, experience or merely cynicism in the more senior courts. While the second case dealt with another instance of hunting without a permit, it was actually a case about the legal status of decisions of the hunting association. The court, sensibly, held that decisions of a hunting association did not have the force of law and that breaches of them could not be punished within the legal system. This result must be right given that such decisions would demonstrate few of the qualities associated with the rule of law. Both

³³⁶ *ibid*; Council Directive 92/43/EEC of 21 May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora; Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the Conservation of Wild Birds 2010 (OJ L 20).

³³⁷ Hunting Act (Jaktlagen) (1987:259); Hunting Ordinance (Jaktförordning) (1987:905).

³³⁸ Ordinance on the Management of Bear, Wolf, Wolverine, Lynx and Golden Eagle (2009:1263) (Förordning om Förvaltning av Björn, Varg, Järv, Lo och Kungsörn).

³³⁹ *Public Prosecutors v SEJ* (RH 2000:51); *Public Prosecutors v HÖ et al* (NJA 2008: 106).

³⁴⁰ *Prosecutors v T* (n 307).

cases are fairly dated and the overall impression is that the court system, certainly at an appeal level, is rarely used to enforce species protection laws in Arctic Sweden.

3.7. Finland

The most easterly of the countries considered in this study is Finland, the most northerly country in Europe. Like Sweden it has no Arctic coastline and has land located both north and south of the Arctic Circle. The whole of the Finnish Arctic is located within the region of Lapland, a vast and fairly wild area, which is home to modern city dwellers and Sámi reindeer herders, and also plays host to a large number of tourists seeking the northern lights and the 'real' Father Christmas.

Species protection in Finland, like in most other Arctic countries takes the form of both direct species protection and habitat protection. As a member of the European Union, Finland is bound by the obligations found in both the Birds Directive and the Habitats and Species Directive and both of these directives have led to a number of amendments to the key protective legislation in Finland since Finland joined the European Union in 1995. The main act which regulates species protection is the Nature Conservation Act which provides for the protection of all mammals and birds, and for plant species to which the protections are extended. The exceptions to this rule are the game species and unprotected species which are listed in the Hunting Act and which are granted their own level of protection, albeit weaker, while still allowing for sustainable hunting to take place. The Nature Conservation Act also allows for the listing of threatened species and Finland has one of the most comprehensive lists of threatened species in the Arctic. This list, however, provides little, if any, protection for the species which are included on it. Only those species which are considered to be at 'imminent risk of extinction', a much smaller number, which are granted a strict protection order, are actually protected. Alongside the species protection, Finland has a number of different types of habitat protection, including designations which can prohibit any access to a particular area by anyone without a permit. These habitat protections are found in the Nature Conservation Act and cover National Parks, strict nature reserves, other types of nature reserves and protected habitat types. Protected land may either be state owned or privately owned and Finland can impose habitat protection on private landowners even without their consent where it is necessary to do so for the purposes of nature conservation.

The case studies included in the Finnish country study show the approach of the Finnish court system to endangered species protection. The cases selected include one administrative decision and a criminal prosecution, although other prosecutions for hunting offences could have been selected. Although a very limited selection, the two case studies show courts that are not necessarily willing to adopt stringent environmental standards. In the bear baiting case, the court downgraded both the type of the offence and the sentences imposed, despite the defendants having been found to have lured a bear with food in order to pursue and kill it.³⁴¹ In the second case, a challenge to a decision to allow a wolf to be killed on the basis of the threat it posed to the reindeer herds, the court refused to side with the environmental organisations, finding that the death of one wolf would not harm the viability of the population.³⁴² While too small a sample size to draw any real conclusions, neither case appears to value species protection over hunting or agricultural rights and this observation would be supported by the infringement proceedings taken by the European Commission on various matters of Finnish environmental standards, including over the protection of wolves.³⁴³ However, both case studies demonstrate that Finnish courts seem to favour a close reading of the specifics of the relevant laws rather than larger policy considerations, such as considerations about the environment.

³⁴¹ *Bear Hunting Offence* (n 248).

³⁴² *Appeal Against Derogations on the Hunting Provisions Relating to Wolves* (Case No 2014/1723).

³⁴³ *Case C-342/05 Commission v Finland* [2007] ECR I-04713.

4. Comparative Analysis

The second and third parts of the comparative method used in this study are the identification phase and the evaluatory phase. These two phases can be found in Parts I, II and III of the comparative analysis below. The identification phase consists of a direct comparison between the various jurisdictions, drawing out the similarities and differences between their endangered species protection laws. The evaluatory phase allows for the laws to be evaluated and, through comparison with each other, to be assessed as to their effectiveness in protecting endangered species in the Arctic. Part I consists of a micro comparison, using two iconic, circumpolar species to compare and contrast the detail of the laws, while Parts II and III consider, at a macro level, the broader themes of the use of science in the selection of species to protect and the ability of the laws to adapt to changing threats in the Arctic such as climate change, plastic pollution and increased access by humans. Each part of the comparative analysis consists of both the identification phase and the evaluatory phase. The three parts also provide the answers to the third, fourth and fifth research questions, which map neatly onto each part in turn.

4.1. Part I: Detailed Comparison of Arctic Species Protection Laws

4.1.1. Introduction

The research conducted as part of this thesis has demonstrated that all of the Arctic nations studied have some form of wildlife protection in place and some way of identifying and protecting endangered or otherwise threatened species. However, what is also clear is that the extent of the protections in place differ considerably between the various countries. It is useful to examine the level of protection put in place by each jurisdiction as it allows for the highlighting of any particular omissions and any places in which protections could be introduced in order to secure the continued survival of threatened and endangered species. It is not possible, within the scope of this thesis, to compare all, or even most, of the Arctic species so two key species have been selected and the extent of protection in each of the jurisdictions then compared. This gives an overview of the levels of protection, allows for comparisons to be drawn and will enable recommendations to be made regarding any gaps within the protection mechanisms. There are, of course, limits to this type of comparison because it is confined to certain species which may or may not be treated in the same way as other species within a particular jurisdiction so certain protections could be overlooked. Similarly, where the selected species are heavily protected in a particular jurisdiction, this could conceal a lacuna over other species which should be protected but are not. As long as these limitations are recognised, comparing levels and extent of protection by looking at particular Arctic species is a worthwhile exercise because it provides a focus which enables detailed comparisons to be drawn and conclusions to be made.

4.1.2. The Species Selected for Comparison

The two key species which have been selected for this process are the polar bear and the Arctic fox. These species have been chosen partly because they are some of the species with the broadest circumpolar distribution which allows as extensive a comparison as possible, and partly because they are both species which are recognisable as specifically Arctic species rather than species which are more commonly found elsewhere.

The polar bear (*ursus maritimus*) is the Arctic's apex predator. Around 25,000 bears are found right across the Arctic, some populations of bears are located as far north as the North

Pole while others as far south as Newfoundland in Canada.³⁴⁴ Unlike other types of bear, polar bears are considered to be marine mammals as they spend much of their time at sea.³⁴⁵ Polar bears are strong swimmers but also rely on the sea ice for mating, resting, hunting and migrating.³⁴⁶ Male polar bears can spend their entire life on the sea ice but female polar bears come on shore to build dens in which to give birth.³⁴⁷ The primary prey of the bears is seals, walrus and other small mammals and seabirds.³⁴⁸ Polar bears are found in all of the Arctic nations studied except Sweden and Finland. Arctic foxes (*alopex lagopus*), both white morphs and blue morphs, have a fully circumpolar distribution and are found in all of the countries included in this study.³⁴⁹ Until the twentieth century, and still today in the USA, Canada and Greenland, Arctic foxes were widely trapped for their valuable pelts, which are bright white during the winter and darker brown in the summer; blue Arctic foxes are a grey-blue colour all year round.³⁵⁰ The level of trapping was so high in Europe that the population of Arctic foxes was more or less decimated.³⁵¹ A captive breeding programme has led to the reintroduction of Arctic foxes in Norway and Sweden but there are still very few, if any, Arctic foxes in Finland.³⁵² They have also disappeared entirely from Jan Mayen.³⁵³ Arctic foxes are generally located on the Arctic tundra, between the tree line and the sea ice, although they will venture further if their usual diet of lemmings and voles are sparse.³⁵⁴

4.1.3. Detailed Comparison of Key Arctic Species

All six of the Arctic nations studied have a system in place for the protection of endangered or threatened species although the level of protection found in each of jurisdiction is different because of the innate differences between the countries. The comparisons below consider the similarities and differences between the listing of different species, the level

³⁴⁴ Lauta (n 19) 180; Chester (n 24) 90–91.

³⁴⁵ Chester (n 24) 90–91.

³⁴⁶ *ibid.*

³⁴⁷ *ibid.*

³⁴⁸ *ibid.*

³⁴⁹ *ibid* 80–81.

³⁵⁰ *ibid.*

³⁵¹ Arild Landa and others, 'The Endangered Arctic Fox in Norway - the Failure and Success of Captive Breeding and Reintroduction' (2017) 36 (Sup 1) Polar Research Article 9, 1.

³⁵² *ibid.*

³⁵³ 'Jan Mayen Information' (*Jan Mayen*) <<https://www.jan-mayen.com/jan-mayen-information.html>> accessed 10 September 2018.

³⁵⁴ Chester (n 24) 80–81.

of protection afforded to species whether they are listed as threatened or endangered or not, any critical habitat or other habitat protection, hunting and enforcement.

4.1.3.1. Polar Bear

The polar bear, as an iconic Arctic species, is somewhat protected across the Arctic although the levels of protection and the details of the way in which the bear is protected differ in each of the countries in which polar bears are found, namely, for the purposes of this study, the United States, Canada, Greenland and Norway. In Norway, polar bears are only really found on Svalbard as there have been no recent sightings on Jan Mayen and the mainland is too far south for polar bears.

4.1.3.1.1. Listing

Although the general public may have an image of the polar bear as an endangered and heavily protected species, the legal systems of the Arctic countries have not reacted to the threat to the polar bear in quite the same way. Nowhere is the polar bear listed as an endangered species nor is it provided with the highest levels of protection available. The United States was the first of the Arctic countries to list the polar bear as a threatened species, which it did under the Endangered Species Act on the basis of climate change predictions and the impact that climate change is expected to have on the polar bear's sea ice habitat.³⁵⁵ The decision was both controversial and challenged but was upheld by the US Court of Appeals as was seen in the case study of *Safari Club International v Salazar* on the basis that the climate change predictions made the destruction of the polar bear's habitat foreseeable (see appendix A.6.1 below).³⁵⁶ As well as being listed as a threatened species, polar bears in the United States are also protected under the Marine Mammal Protection Act which lists them as a depleted marine species.³⁵⁷ However, the USA remains to only country to list the polar bear as threatened. In Canada, COSEWIC has designated the polar bear as a species of special concern and the federal government has

³⁵⁵ Determination of Threatened Status for the Polar Bear (*Ursus Maritimus*) Throughout Its Range, 73 Federal Register 28,211 (15 May 2008); Susan Brown, 'Polar Bears Gain Listing as Threatened' [2008] Nature <<http://www.nature.com/doi/10.1038/news.2008.828>> accessed 20 May 2018.

³⁵⁶ *Safari Club International v Salazar (In re Polar Bear Endangered Species Act Listing & Section 4(d) Rule Litigation - MDL No. 1993)* (n 277).

³⁵⁷ Marine Mammal Protection Act of 1972, 1362(1).

followed this conclusion and listed the polar bear as a species of special concern.³⁵⁸ Likewise, in the Northwest Territories, the polar bear has been assessed to be a species of special concern by the Northwest Territories' Species at Risk Committee and designated as such under the Species at Risk (NWT) Act 2009.³⁵⁹ In the Yukon and in Nunavut, however, the polar bear has no protected status at all.³⁶⁰ There is one good reason for the failure of Canada to list the polar bear as a threatened species, with the legal protections that come with it: under the Species at Risk Act 2002, the protections for threatened species are absolute and there is not a way to allow for the hunting of a threatened species by indigenous people under the act.³⁶¹ As polar bear hunting is a vitally important cultural activity among the indigenous people of Arctic Canada, it is understandable that the federal government would not be keen to increase the threat level of the polar bear if doing so would prevent indigenous hunting.³⁶² One solution to this problem would be to amend the Species at Risk Act 2002 to allow for general exceptions to species protections to be made for indigenous people, in line with their entitlements under the various Land Claim Agreements (see appendix B.1 below). This would be similar to the exemptions for Alaska natives found in the Endangered Species Act.³⁶³ The benefit of allowing the exemptions to align with Land Claim Agreements is that these clearly set out the rights of the indigenous people and would provide a well-defined limit on any exemption. By allowing an exemption for indigenous people, the federal government would be enabled to consider the risk which climate change and habitat loss pose to the polar bear, allowing it to increase the level of protection for the polar bear, without needing to worry about causing a devastating cultural impact on many indigenous people.

The other option for providing a higher level of protection for the polar bear in Canada would be to include it at a species covered by the Marine Mammal Regulations 1993.³⁶⁴ While polar bears are considered to be marine mammals in the USA, and are listed as a depleted species (as a result of being designated a threatened species under the Endangered

³⁵⁸ Environment and Climate Change Canada, 'Species Profile (Polar Bear)' (*Species at Risk Public Registry*, 27 April 2011) <https://www.registrelep-sararegistry.gc.ca/species/speciesDetails_e.cfm?sid=167> accessed 5 July 2018; Species at Risk Act 2002.

³⁵⁹ 'NWT List of Species at Risk' (*NWT Species at Risk*) <<https://www.nwt-species-at-risk.ca/CMA/SarList>> accessed 7 February 2019; Species at Risk (NWT) Act 2009.

³⁶⁰ Yukon Wildlife Act 2002; Nunavut Wildlife Act 2003.

³⁶¹ Species at Risk Act 2002 s 73.

³⁶² Waples and others (n 18).

³⁶³ Endangered Species Act 1973 § 1539(e).

³⁶⁴ Marine Mammal Regulations 1993.

Species Act), the Canadian Marine Mammal Regulations exclude the polar bear from their protection.³⁶⁵ Were the polar bear, which is a marine species, to be protected under the Marine Mammal Regulations, the regulations would prohibit catching a bear without a permit issued in line with a total allowable catch, killing a bear inhumanely, disturbing a bear (which is broadly defined) and getting too close.³⁶⁶ The difference between using the Marine Mammal Regulations rather than the Species at Risk Act is that there is already an exemption for indigenous people and beneficiaries of a Land Claim Agreement as long as they are taking a species for ‘food, social or ceremonial purposes’.³⁶⁷ The current regulations allow for the capture of certain species to be carried out with a licence and so a total allowable harvest, which is required under Canada’s international obligations could still be enforced.³⁶⁸ Protecting the polar bear at a federal level using the Marine Mammal Regulations may be less controversial than doing so through the Species at Risk Act 2002 and would require fewer amendments to the law as an exemption for indigenous people is already built into the regulations.

Neither Greenland nor Svalbard adhere to a system of species protection which lists particular species as in need of special protection as a result of the level of threat to that species.³⁶⁹ In Greenland, the Nature Protection Act 2003 allows for the passing of orders by Naalakkersuisut which provide for the protection of any species of plant or animal, with no need for scientific evidence that the species is threatened.³⁷⁰ The Greenlandic Red List lists the polar bear as a vulnerable species and Naalakkersuitsut has granted an order for the protection of the polar bear but there is no formal or legal listing of the polar bear’s threat level.³⁷¹ Similarly in Svalbard, the Norwegian Red List for Svalbard lists the polar bear as vulnerable but this brings with it no legal protection.³⁷² The polar bear is protected in Svalbard as a result of the general protection for all species and one specific requirement under the Svalbard Environmental Protection Act but there is no formal listing of the polar

³⁶⁵ *ibid*; Marine Mammal Protection Act of 1972, § 1362(6).

³⁶⁶ Marine Mammal Regulations 1993 ss 4–10.

³⁶⁷ *ibid* 6.

³⁶⁸ *ibid* 4, 6.

³⁶⁹ Act on Nature Protection 2003; Svalbard Environmental Protection Act 2001.

³⁷⁰ Act on Nature Protection 2003 ss 5–10.

³⁷¹ David Boertmann and Christian Bay, *Grønlands Røddliste 2018* (Danish National Centre for Energy and Environment, Aarhus University and Pinngortitaleriffik, Greenland Institute of Natural Resources 2018); Self Government Order No 3 of 14 September 2018 on Catching and Protecting Polar Bears (Selvstyrets Bekendtgørelse Nr 3 af 14 September 2018 om Fangst og Beskyttelse af Isbjørne).

³⁷² *Norwegian Red List of Species* (n 309).

bear as threatened.³⁷³ This does not mean that the polar bear is not protected in either Greenland or in Svalbard, on both islands protections exist, but the lack of a mechanism by which species can be identified as threatened or endangered, and appropriate protections considered does leave species vulnerable to the whims of government or demands of the general public. A system of listing threatened and endangered species within Greenland and Svalbard, particularly one which makes use of scientific evidence as is discussed at 4.2.6 below, would provide a much stronger protection for the islands' most vulnerable species.

4.1.3.1.2. Protections

It is not just listing a species as threatened or otherwise which ensures that it is protected, there is also a need for specific protections to reduce the threat posed to the species. Among the various Arctic nations, there are a number of different levels of protections for the polar bear. The weakest protections are found in Canada and, arguably, Svalbard although the level of protection in Svalbard is actually much stronger than it appears in the legislation. In Canada there are no federal protections because the polar bear is only listed as a species of special concern which brings with it no legal protection.³⁷⁴ At a territorial level, there is a similar lack of protection although in all three territories, a hunting licence (or indigenous right to hunt) is required in order to hunt or kill a polar bear. In Svalbard, there is a general protection for all species of fauna.³⁷⁵ The act states that they are 'protected' which it defines as prohibiting the capturing, hunting, killing or injuring of an animal, as well as preventing damage to the 'eggs, nests or lairs' of a species.³⁷⁶ It is also illegal to lure, pursue or seek out a polar bear where doing so could cause harm to humans or bears.³⁷⁷ This more or less prohibits polar bear tourist safaris on Svalbard, although polar bears are often seen from cruise ships.³⁷⁸ As was shown in the case study of *Attorney General of Troms and Finnmark v A* (appendix D.6.1), the Syssemmannen on Svalbard and the Norwegian courts are extremely strict when it comes to investigating and punishing those who harm a polar bear, even if, like in that case, the polar bear was only scared away by warning shots.³⁷⁹

³⁷³ Svalbard Environmental Protection Act 2001.

³⁷⁴ Species at Risk Act 2002 s 32.

³⁷⁵ Svalbard Environmental Protection Act 2001 s 25.

³⁷⁶ *ibid* 30.

³⁷⁷ *ibid*.

³⁷⁸ 'Polar Bears in Svalbard' (*Visit Svalbard*) <<https://en.visitsvalbard.com/visitor-information/polar-bears>> accessed 24 May 2019.

³⁷⁹ *Attorney General in Troms and Finnmark v A* (n 319).

The courts decided that this was sufficient to amount to a threat of ‘significant environmental damage’ under the Svalbard Environmental Protection Act to constitute a criminal offence.³⁸⁰ So although the Svalbard regulations seem weak in comparison to those of Greenland and the USA, they are enforced stringently and therefore are less weak than in Canada.

Much stronger protections are found in Greenland and in the USA. In Greenland, the Order on Catching and Protection of Polar Bears states that polar bears are protected throughout Greenland’s land and fishing territories.³⁸¹ This protection is somewhat tempered by the fact that hunting of polar bears is lawful in certain circumstances but there is full protection for polar bear dens, bears which are in or around dens and female polar bears which are with dependent cubs of any age.³⁸² There is also an annual conservation period over the summer when all polar bears are protected (1 July to 31 August in West Greenland and 1 August to 30 September in East Greenland).³⁸³ As part of the protection, it is illegal to lure, seek or pursue a polar bear, either in person or by drone, unless doing so in connection with lawful hunting or in order to scare away a polar bear.³⁸⁴ Like in Svalbard, these rules prevent tourists from being offered polar bear sightseeing trips. The most stringent polar bear protections are found in the USA where the Endangered Species Act prohibits the ‘taking’ of an endangered species which is defined to include harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing or collecting any threatened animal, or attempting to do so, unless the act is carried out for the purposes of protecting human life.³⁸⁵ This protection has also been extended to cover polar bears although they are not listed as endangered species.³⁸⁶ However, when comparing this with Greenland, and indeed Svalbard, the one protection which is obviously missing in the USA is a prohibition on seeking out a polar bear, and thereby preventing polar bear safaris from taking place. Introducing such a prohibition would be beneficial to ensuring that polar bears are not pursued (as is already prohibited) or disturbed in Alaska.

³⁸⁰ *ibid.*

³⁸¹ Self Government Order No 3 of 14 September 2018 on Catching and Protecting Polar Bears s 3.

³⁸² *ibid.*

³⁸³ *ibid* 3(2).

³⁸⁴ *ibid* 4.

³⁸⁵ Endangered Species Act 1973 § 1532(19), 1538(a)(1)(B); 50 CFR § 17.21(c)(2).

³⁸⁶ Endangered Species Act 1973 § 1538(a)(1)(G); 50 CFR §§ 17.21, 17.31; Special Rule for the Polar Bear, 73 Federal Register 28,306 (15 May 2008) codified at 50 CFR § 17.40(q).

In addition to the protections for the polar bear in the USA, the Endangered Species Act introduces a consultation requirement for any listed species. Any federal agency which authorises, funds or carries out any action must ensure that their actions do not ‘jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of habitat of such species’.³⁸⁷ As part of this requirement, the agencies must consult with the US Fish and Wildlife Service. For polar bears, this requirement has quite a large impact because the critical habitat of the polar bear is large (see the case study of *Alaska Oil and Gas Association v Jewell* at appendix A.6.2 below) and because, as a result of poverty and isolation, the federal government has quite a significant input into communities on the North Slope of Alaska.³⁸⁸ Actions taken with any federal funding, such as the building of federally funded washeterias, lead to significant consultation between government agencies and the US Fish and Wildlife Service to ensure that the polar bear is not harmed.³⁸⁹ This is significantly more onerous than the protections imposed by other Arctic countries, although it can lead to unfair burdens being placed on indigenous people who face these consultation requirements when trying to make development improvements to their communities as the requirement can lead to additional costs, time or uncertainty.³⁹⁰ This burden can lead to environmental injustice so it is important that the needs of the indigenous population are also taken into account, as well as the needs of the protected species.³⁹¹ In mainland Norway, where a habitat has been identified for a priority species, the regulations drafted to protect that species may require that the impact of any works in the proposed area consider the impact on the species.³⁹² While this does not apply to polar bears as they are not found in mainland Norway, it is another, admittedly more limited, example of a consultation or consideration requirement. Such requirements to encourage government departments to consider their impact on species would be a valuable improvement to the polar bear protections in the other Arctic nations as long as introducing such a policy would not place an unnecessary burden on indigenous or impoverished communities.

³⁸⁷ Endangered Species Act 1973 § 1536(a)(2).

³⁸⁸ *Alaska Oil & Gas Association v Jewell* (n 8); Sarah E Mackie, ‘Bearing the Burden: Environmental Injustice in the Protection of the Polar Bear - Alaska Oil & Gas Ass’n v Jewell (9th Cir. 2016)’ (2018) 42 Harvard Environmental Law Review 547, 560–562.

³⁸⁹ Mackie (n 388) 560–562.

³⁹⁰ *ibid.*

³⁹¹ *ibid.*

³⁹² Nature Diversity Act s 24(c).

Of all of the nations included in this study which have polar bear populations, it is clearly Canada which has the weakest polar bear protections. The other countries have fairly strong protections, although, as has been discussed, the USA could introduce a prohibition on seeking out or luring a polar bear in order to reduce or prohibit polar bear safaris as is already the case in Svalbard and Greenland. Svalbard and Greenland could also introduce a consultation requirement for government departments to ensure that they are taking into account the impact of their actions on species such as the polar bear. It is Canada, however, which ought to consider whether or not it needs to introduce legal protections for polar bears beyond the current simple prohibitions against hunting without a licence. One of the difficulties in introducing legally binding protections in Canada is the complex jurisdictional arrangements in the Arctic. The best level for the protections to be introduced would be the territorial level as the territories manage more land than the federal government, and all three territories have a level of species protection in place which would enable legally binding protections to be introduced, whereas the Species at Risk Act 2002 would need to be amended as discussed above to enable the polar bear to be protected without harming the indigenous populations in Canada. At the moment, polar bear protection in Canada is largely done through polar bear management agreements between various levels of government. While these enable the polar bear populations to be managed cooperatively, the legally enforceable protections seen in the other Arctic nations would provide for a more robust system of protections, particularly against behaviour such as seeking out a polar bear, disturbing it or other actions which fall outside the hunting regulations.

4.1.3.1.3. Critical Habitat

Among the countries included in this study, only one, the USA, has designated a critical habitat for the polar bear.³⁹³ As was described in the case study of *Alaska Oil and Gas Association v Jewell* (appendix A.6.2 below), the critical habitat of the polar bear in Alaska is 187,000 square miles of sea ice, coastal waters, land and barrier islands.³⁹⁴ In the critical habitat, the polar bear is protected by the provisions of section 7 of the Endangered Species Act, which were described above, namely the requirement that a government agency consider the impact of a species, and consult with the US Fish and Wildlife Service when

³⁹³ Designation of Critical Habitat for the Polar Bear (*Ursus Maritimus*) in the United States, 75 Federal Register 76,085 (7 December 2010).

³⁹⁴ *Alaska Oil & Gas Association v Jewell* (n 8).

authorizing, funding or carrying out any activity which could affect the critical habitat by causing it to be destroyed or adversely modified.³⁹⁵ This is different to a nature reserve or national park as it requires consideration of the needs of the specific species. As none of the other Arctic countries included in this study either have a system of designating critical habitat, or they have not listed the polar bear as a species requiring the designation of a critical habitat, no other critical habitats have been identified. As a Species of Special Concern, a critical habitat could be designated for the polar bear in the Northwest Territories but this has not yet occurred, although there is a general ban on damaging or destroying the habitats of all wildlife species under the Northwest Territories Wildlife Act 2013.³⁹⁶

For Svalbard and Greenland it probably does not make all that much difference because the polar bear's key habitats are already designated as national parks or nature reserves (see appendix C.5 and appendix D.5.2 below) such as the North and East Greenland National Park, where almost all hunting and all disturbance of mammals and their nests or breeding sites is prohibited, and the Nordaust-Svalbard Nature Reserve, of which the Kong Karls Land archipelago is the primary breeding place for polar bears in Svalbard.³⁹⁷ Access to Kong Karls Land is completely prohibited by law and it was here that Andhøy was found guilty of and fined for, landing his boat (see appendix D.6.1 below).³⁹⁸ While the habitat protections in Greenland and Svalbard are fairly strong, in Canada, the identification of critical habitat for the polar bear may be beneficial, particularly in terms of forcing consideration of the species' protection by federal government agencies. Doing so would require listing the polar bear at a higher threat level at federal level, as has been discussed above, although even then, the critical habitat of the polar bear would only be protected on federal land.

4.1.3.1.4. Hunting

Regardless of their position on the threat level to the polar bear, or their protections of the species or its habitat, all of the Arctic nations included in this study have limits on the

³⁹⁵ Endangered Species Act 1973 § 1536(a)(2).

³⁹⁶ Species at Risk (NWT) Act 2009 s 153; Northwest Territories Wildlife Act 2013 ss 51(1), 53, 93.

³⁹⁷ Home Rule Order No 7 of 17 June 1992 on the National Park in North and East Greenland; Regulations of 4 April 2014 Relating to Large Nature Conservation Areas and Bird Reserves in Svalbard as Established in 1973 2014.

³⁹⁸ *Attorney General in Troms and Finnmark v A* (n 319).

hunting of polar bears. In Svalbard, the protection for the polar bear is absolute and there is no hunting allowed at all.³⁹⁹ The only exemptions to this are where there is an immediate threat to life or health or where a polar bear is threatening to cause ‘substantial material damage’.⁴⁰⁰ In such instances, no permit is required to shoot the bear.⁴⁰¹ As Andhøy discovered, however, if a person shoots a bear in self defence having initially pursued or sought out the bear then that person will be prosecuted, regardless of the risk of harm posed by the bear (see appendix D.6.1 below).⁴⁰² Where a polar bear is becoming a problem around a settlement on Svalbard and threatens to injure people or property then a permit can be obtained to kill that bear if other measures to remove it have failed.⁴⁰³ Apart from these two exceptions, polar bears may not be killed on Svalbard. In the USA, the polar bear protection is almost absolute; the only people allowed to hunt polar bears are Alaska Natives living in Alaska (and non-native residents of Alaska Native villages).⁴⁰⁴ There is an exemption in both the Endangered Species Act and the Marine Mammal Protection Act which allows Alaska Natives to hunt polar bear where they are doing so primarily for subsistence purposes.⁴⁰⁵ Despite these exemptions, polar bear hunting is restricted by annual taking limits established under a treaty with Russia and a voluntary agreement with the Inupiat people of Canada. In the communities to the west of Utqiagvik, polar bear hunting is limited to 29 bears per year (of which only 9 may be female) and in the villages further east, the limit is 35 bears per year.⁴⁰⁶ As well as hunting polar bears, permits can be sought for activities which would otherwise be unlawful, including killing a bear, where the purpose is scientific, related to enhancing the survival of the species or where it is incidental to a lawful act.⁴⁰⁷ Similar restrictions apply in Greenland to those found in Alaska. The only people allowed to hunt for polar bears are professional hunters who have been granted a professional hunting licence.⁴⁰⁸ Although professional hunters may be

³⁹⁹ ‘Polar Bear Take’ (*MOSJ – Environmental monitoring of Svalbard and Jan Mayen*)

<<http://www.mosj.no/en/influence/hunting-trapping/polar-bear-bag.html>> accessed 14 September 2018.

⁴⁰⁰ Svalbard Environmental Protection Act 2001 s 33.

⁴⁰¹ *ibid.*

⁴⁰² *Attorney General in Troms and Finnmark v A* (n 319).

⁴⁰³ Svalbard Environmental Protection Act 2001 s 34.

⁴⁰⁴ Endangered Species Act 1973 § 1539(e).

⁴⁰⁵ *ibid* § 1539(e); Marine Mammal Protection Act of 1972, § 1362(6).

⁴⁰⁶ Agreement Between the Government of the United States and the Government of the Russian Federation on the Conservation and Management of the Alaska-Chukotka Polar Bear Population 2000; United States - Russia Polar Bear Commission, Maintenance of Annual Taking Limit for the Alaska-Chukotka Polar Bear Population, 82 Federal Register 17,445 (11 April 2017); Inuvialuit-Inupiat Polar Bear Management Agreement for the Southern Beaufort Sea 1988 (revised 2011).

⁴⁰⁷ 50 CFR § 17.22.

⁴⁰⁸ Self Government Order No 3 of 14 September 2018 on Catching and Protecting Polar Bears ss 8–10.

either indigenous or non-indigenous people, the high percentage of indigenous inhabitants in Greenland and the requirement to have a strong affiliation with Greenland, have been resident for at least two years and make at least 50% of their income from hunting and fishing, limits those eligible to hold professional licences to a broadly similar group to those allowed to hunt polar bears in the USA.⁴⁰⁹ As well as the requirement to hold a hunting licence, there are limits on the number of polar bears which may be caught.⁴¹⁰ In 2018 there was an annual quota of 156 polar bears, which were spread around the various towns and villages, with 92 allocated to the north and west and 64 for the south and east.⁴¹¹ Each licence to hunt polar bear allows the hunter to kill no more than one bear during that year.⁴¹² The only other exemptions to the protection of polar bears in Greenland are those which allow a permit to be granted for scientific research or for officials to remove a problem bear.⁴¹³

Across Svalbard, Alaska and Greenland, therefore, the rules on the hunting of polar bears are fairly similar. Polar bears are protected from hunting, except in limited numbers for those who have traditionally hunted polar bears for sustenance or for cultural reasons. With no indigenous population in Svalbard, there is no need to allow even this small, sustainable amount of hunting. Exemptions are allowed for bears which cause a threat to people or property, and, in some cases, for scientific research, and these are similar across all three jurisdictions. The real difference, as has been shown throughout this discussion about the application of endangered species protection to the polar bear, is found in Canada. With the exception of the Yukon, Canada is the only country to allow hunting of polar bears by non-indigenous or non-professional hunters and is the only country to allow sport hunting, even allowing sport hunting by tourists and other non-residents of the Arctic territories. Hunting regulations are a matter for the territorial governments and therefore they differ across the territories. In Nunavut and the Northwest Territories, polar bears may be hunted by indigenous people, residents of the territory and non-residents.⁴¹⁴ Indigenous people

⁴⁰⁹ *ibid*; Self Government Order No 13 of 30 December 2014 on Professional Hunting Certificates (Selvstyrets Bekendtgørelse No 13 af 30 December 2014 om Erhvervsjagtbeviser).

⁴¹⁰ Self Government Order No 3 of 14 September 2018 on Catching and Protecting Polar Bears s 5.

⁴¹¹ 'Polar Bear Hunting Quota'

<https://naalakkersuisut.gl/~media/Nanoq/Files/Attached%20Files/Fiskeri_Fangst_Landbrug/DK/2018/Kvoter_PRM%20Isbjoerne%20kvoter%202018_DK.pdf> accessed 12 April 2019.

⁴¹² Self Government Order No 3 of 14 September 2018 on Catching and Protecting Polar Bears s 8(2).

⁴¹³ *ibid* 21, 22.

⁴¹⁴ Northwest Territories Wildlife Act 2013 s 24; Nunavut Land Claims Agreement s 35; Nunavut Wildlife Act 2003 ss 2, 10.

generally require no licence or permit as they have a right to hunt under the various land claim agreements.⁴¹⁵ Other hunters are required to obtain a licence and those who are non-residents, including sport hunters, are also required to be accompanied by a guide. Polar bear hunting is limited by the total allowable harvest which is established for each sub-population of polar bears under the Inuvialuit Settlement Region Polar Bear Joint Management Plan and the Polar Bear Management Agreement for the North Beaufort Sea and Viscount Melville Sound Polar Bear Populations.⁴¹⁶ Hunting is limited to certain times of the year in the Northwest Territories and is only allowed along the north coast and on the islands of the Arctic Archipelago.⁴¹⁷ In comparison, however, in Nunavut hunting is allowed all year round and is not limited geographically, except where an indigenous people group has exclusive rights to hunt under a land claim agreement.⁴¹⁸ Polar bear hunting on the North Slope of the Yukon is limited to the Inuvialuit by the Inuvialuit Final Agreement.⁴¹⁹ They do not require a permit but are limited to a total allowable harvest of 35 bears under the Inuvialuit-Inupiat Polar Bear Management Agreement and the Inuvialuit Settlement Region Polar Bear Joint Management Plan.⁴²⁰ In all three territories, the hunting of bear cubs, female polar bears with cubs or female polar bears which are denning is prohibited.

It is entirely appropriate for the Canadian territories to allow hunting of polar bears by indigenous people for whom it is a traditional cultural practice and a means of feeding their families. Such communities hunt polar bears in a sustainable manner and have little to no impact on the future survival of the polar bear, particularly when the harvest is limited after consideration of the scientific evidence regarding the levels of loss which the polar bear population can sustain. However, there is no reason for sport hunting of polar bears to be allowed in Canada, except that it brings money to otherwise economically deprived

⁴¹⁵ Northwest Territories Wildlife Act 2013 s 17; Nunavut Land Claims Agreement s 35; Nunavut Wildlife Act 2003 ss 2, 10.

⁴¹⁶ *Inuvialuit Settlement Region Polar Bear Joint Management Plan* (Joint Secretariat, Inuvialuit Settlement Region 2017); Polar Bear Management Agreement for the North Beaufort Sea and Viscount-Melville Sound Polar Bear Populations between the Inuit of the Kitikmeot West Region in Nunavut and the Inuvialuit 2006.

⁴¹⁷ Northwest Territories Big Game Hunting Regulations 1992, Schedule, Part 3; Northwest Territories Wildlife Management Zones and Areas Regulations 1990.

⁴¹⁸ *Nunavut Hunting Guide 2018/19* (n 259).

⁴¹⁹ Inuvialuit Final Agreement 1984.

⁴²⁰ Inuvialuit-Inupiat Polar Bear Management Agreement for the Southern Beaufort Sea 1988 (revised 2011); *Inuvialuit Settlement Region Polar Bear Joint Management Plan* (n 416).

communities in Canada.⁴²¹ This argument could also be used about the communities in Alaska and Greenland but in both countries they have managed to enforce a ban on polar bear hunting except for indigenous people, and in Greenland, a ban on polar bear safaris, without the communities being significantly more impoverished than in Canada. The demand for sport hunting has already begun to decrease following the prohibition on the importation of polar bear hides into the USA as a result of the listing of the polar bear as a depleted species under the Marine Mammal Protection Act (as a result of it being listed as a threatened species under the Endangered Species Act).⁴²² Allowing sport hunting of polar bears is unnecessary and demonstrates a cavalier attitude to wildlife protection, particularly for Arctic species. While hunting is not currently threatening the polar bear, as the threat caused by climate change and sea ice habitat destruction increases, it will become less and less acceptable for Canada to allow polar bears to be hunted for anything but indigenous subsistence. Reducing quotas as polar bear populations reduce may remove most of the incentive to sell tags for sport hunting but it would be better to prohibit sport hunting before it makes an impact on the survival of polar bears rather than afterwards.

4.1.3.1.5. Enforcement

Enforcement of the rules on polar bear protection vary widely across the countries included in this study and range from fines and confiscation of the animal to prison sentences. The highest penalties are found in Canada where in the Nunavut individual punishments can be as high as 500,000 CAD and six months in prison and in the Northwest Territories up to 250,000 CAD and 1 year in prison.⁴²³ Punishments in the US are considerably lower (fines of up to \$25,000 or prison terms of up to six months) but are still perfectly adequate as a deterrent and similarly in Svalbard where the fines are set by the Sysselmannen and prison terms can be up to three years.⁴²⁴ Only in Greenland are only punishments available fines and confiscation. Fines are set in accordance with the offender's income with the case study of *Prosecutors v T* (appendix C.6.1 below) showing a fine of 20,000 DKK (about

⁴²¹ 'Sport Hunting in Canada' (*Polar Bears Canada*) <<https://www.polarbearsCanada.ca/en/management/harvest/sport-hunting-in-canada>> accessed 3 June 2019.

⁴²² Marine Mammal Protection Act of 1972, § 1372(b)(3); 'Economic Importance' (*Polar Bears Canada*) <<https://www.polarbearsCanada.ca/en/polar-bears-canada/economic-importance>> accessed 4 June 2019.

⁴²³ Nunavut Wildlife Act 2003 s 221; Northwest Territories Wildlife Act 2013 ss 148(3), (4).

⁴²⁴ Endangered Species Act 1973 § 1540(a)(1), (b)(1); Svalbard Environmental Protection Act 2001 ss 96, 96a.

£2,400) being imposed.⁴²⁵ This is partly because imprisonment was rejected under the Greenlandic Criminal Code in 1954 as being incompatible with traditional Greenlandic practices of reintegrating offenders into society rather than punishing them.⁴²⁶ There are now open prisons in Greenland but they are generally reserved for the most serious offences which polar bear hunting offences will rarely constitute.⁴²⁷ For all of the countries in this study, the punishments seem to be adequate and, while in Canada the fines are extremely high, the maximum fines are not mandatory and there are other options such as court orders to ameliorate the harm which the court may impose if it desires.

4.1.3.1.6. Conclusion

Comparing and contrasting the different rules for the protection of polar bears around the Arctic, and in particular doing so at a high level of detail, allows the drawing of conclusions about similarities and differences across the Arctic. The analysis above has demonstrated that there are many considerable differences in the protection of polar bears although in most cases the outcome is a high level of protection, whether through designation of the polar bear as a threatened species or by way of strictly enforced habitat protection and either a prohibition on hunting or hunting being allowed only in limited numbers by those relying on polar bears for subsistence. A small number of alterations to the rules found in Greenland, Svalbard and the USA have been suggested based on good practice which is found elsewhere.

The recommendations are that the USA should implement similar restrictions to Svalbard and Greenland to limit or prohibit polar bear safaris given that such activities risk disturbing polar bears and that Svalbard and Greenland should introduce a consultation requirement similar to that found in the USA to ensure that polar bear conservation is included in all governmental decision making which could affect their survival. The main differences found in conducting the analysis were found in Canada where polar bear protection is much weaker. The two key recommendations which have come out of the work conducted in this comparative analysis are, firstly, that Canada should either amend the Species at Risk Act 2002 to allow for indigenous exceptions which would then allow it to list the polar bear

⁴²⁵ *Prosecutors v T* (n 307).

⁴²⁶ Annemette Nyborg Lauritsen, 'Greenland's Open Institution—Imprisonment in a Land without Prisons' (2012) 13 *Journal of Scandinavian Studies in Criminology & Crime Prevention* 47; Greenland Criminal Code 1954.

⁴²⁷ Lauritsen (n 426).

as a threatened species at federal level or should include the polar bear as a marine mammal protected under the Marine Mammal Regulations 1993.⁴²⁸ The latter would be a better option as it would require no statutory amendments and would be less controversial than amending the Species at Risk Act 2002. It would, however, only apply in Canadian waters and so additional protections would also be required by the territories. The best model of the three territories is that found in the Northwest Territories although the polar bear would be better protected if it were to be listed as threatened under the Species at Risk (NWT) Act 2009 than as a species of special concern.⁴²⁹ The second key recommendation is that sport hunting for polar bears should be ended and hunting for polar bears should be limited to subsistence hunting for indigenous or local people and situations where polar bears are posing a threat to life or property. Sport hunting is unnecessary and increases the risk to polar bear populations; Canada should follow the example of the other Arctic nations included in this study in prohibiting it. None of these recommendations will solve the real threat to the polar bear, being habitat destruction as a result of climate change, but they will remove some of the pressure from a species which is predicted to become endangered within 45 years (see appendix A.6.1 below).⁴³⁰

4.1.3.2. Arctic Fox

The Arctic fox is another iconic Arctic species, with its distinctive white or blue fur, and circumpolar distribution.⁴³¹ As a species in demand for its fur, the Arctic fox was heavily trapped during the nineteenth and early twentieth centuries, leading to a depletion in numbers, particularly in mainland Europe where the Arctic regions are more heavily populated.⁴³² In more remote Arctic regions such as Alaska, the Arctic fox is much more populous, described as ‘common, sometimes abundant’.⁴³³ This difference in population trends may account for the large difference in the way that the species is treated with Finland, Sweden and mainland Norway invoking high levels of protection and Alaska, Canada, Greenland and Svalbard having far fewer protections.

⁴²⁸ Species at Risk Act 2002; Marine Mammal Regulations 1993.

⁴²⁹ Species at Risk (NWT) Act 2009.

⁴³⁰ *Safari Club International v Salazar (In re Polar Bear Endangered Species Act Listing & Section 4(d) Rule Litigation - MDL No. 1993)* (n 277) 15.

⁴³¹ ‘Fjällräv’ (*ArtDatabanken*) <<https://artfakta.se/artbestamning/taxon/vulpes-lagopus-100005>> accessed 5 June 2019; Chester (n 24) 80–81.

⁴³² ‘Fjällräv’ (n 431).

⁴³³ ‘Arctic Fox Species Profile’ (*Alaska Department of Fish and Game*) <<http://www.adfg.alaska.gov/index.cfm?adfg=arcticfox.main>> accessed 7 June 2018.

4.1.3.2.1. Listing

On mainland Norway, in Sweden and in Finland, the Arctic fox is a heavily protected species. In the Norwegian and Finnish red lists, the Arctic fox is listed as critically endangered and in Sweden it is considered to be endangered.⁴³⁴ While none of these listings provide any legal or practical protection for the Arctic fox, they do influence the protection provided under the various national rules on species protection. In contrast in Greenland the Arctic fox is listed as not threatened and in Svalbard it is considered to be of ‘least concern’ which is the lowest level of threat status.⁴³⁵ Despite these low threat levels, there are protections for the Arctic fox on both islands. In the USA and Canada, however, including in all three of the Canadian Arctic territories, the Arctic fox is not considered to be a threatened species or to be in need of protection. These much lower threat levels in North America, Greenland and Svalbard, while they may currently be a fair representation of the populations of Arctic foxes in these countries, do not take into account the threat of habitat destruction caused by climate change, nor the impact of the red fox moving north as temperatures rise.⁴³⁶ Much like the polar bear, the Arctic fox thrives in the cold, the snow and on the sea ice, denning in hillsides or snowbanks.⁴³⁷ As this habitat disappears the Arctic fox will find it increasingly difficult to find appropriate places to feed, den and raise young. In addition, as the warmer temperatures attract the larger red foxes further north, the Arctic fox faces a significant threat in terms of competition for food and directly from the predation of the red fox.⁴³⁸ In the same way as was recommended for the polar bear, those jurisdictions which have not yet listed the Arctic fox as a threatened species should consider doing so on the basis that climate change is likely to pose a severe threat to its survival.

The significant differences in threat level have an impact on the way in which the Arctic fox is protected across its range. In Sweden and Finland, the Arctic fox is listed as a species

⁴³⁴ *Norwegian Red List of Species* (n 309); Esko Hyvärinen and others, *Suomen Lajien Uhanalaisuus – Punainen Kirja 2019 (Red List of Finnish Species)* (Ympäristöministeriö & Suomen Ympäristökeskus 2019); ‘Fjällräv’ (n 431).

⁴³⁵ Boertmann and Bay (n 371); *Norwegian Red List of Species* (n 309).

⁴³⁶ ‘Arctic Fox’ (*Center for Biological Diversity*)

<https://www.biologicaldiversity.org/species/mammals/Arctic_fox/index.html> accessed 5 June 2019.

⁴³⁷ Chester (n 24) 80–81.

⁴³⁸ ‘Threats to Arctic Foxes’ (*Defenders of Wildlife*, 19 March 2012) <<https://defenders.org/arctic-fox/threats>> accessed 11 June 2019.

under Annex IV of the European Union's Habitats and Species Directive.⁴³⁹ Article 12 of the directive requires all EU countries to ensure that such species are given 'strict protection'.⁴⁴⁰ As such, in Sweden, the Arctic fox is listed, like the other species included in the Habitats and Species Directive and the Birds Directive, in appendix 1 of the Species Protection Ordinance as a protected species.⁴⁴¹ In Finland, the Arctic fox is listed as a threatened species under appendix 4 of the Nature Conservation Decree although this status brings with it no additional protection compared to the protection granted to all mammals in Finland.⁴⁴² The Arctic fox has, however, been placed under a strict protection order which is the highest level of protection available.⁴⁴³ In mainland Norway, which is not subject to the Habitats and Species Directive, the Arctic fox is protected by the general protection afforded to all wild animals under the Nature Diversity Act 2009.⁴⁴⁴ It is also the only Arctic mammal to be listed as one of the country's 13 priority species, having been designated as such in 2015.⁴⁴⁵ In Norway, as in both Sweden and Finland, the Arctic fox is protected at the highest level of protection available under the respective laws. Similarly, in Greenland the Arctic fox is heavily protected although it is not protected because it is considered to be endangered. Neither the Greenlandic Nature Protection Act 2003, nor its predecessor, require a species to be endangered or threatened for it to be protected.⁴⁴⁶ The Arctic fox has been protected in Greenland since 1989 but it is still not considered to be threatened.⁴⁴⁷ Likewise in Svalbard where the Arctic fox is also not considered to be threatened, there is still a level of protection because almost all species of flora and fauna occurring on the island are protected.⁴⁴⁸ Unlike in Greenland, however, on Svalbard there are no specific protections relating to the Arctic fox, it merely comes under the protection granted to all species. The situation in the USA and Canada is very different. As the Arctic fox is not considered to be a threatened species, it is not listed under the Endangered Species

⁴³⁹ Habitats and Species Directive (92/43/EEC), Article 12, Annex IV(a).

⁴⁴⁰ *ibid*, Article 12, Annex IV(a).

⁴⁴¹ Species Protection Ordinance (2007:845), Appendix 1.

⁴⁴² Nature Conservation Decree (Luonnonsuojeluasetus) (160/1997), Appendix 4.

⁴⁴³ Nature Conservation Act (Luonnonsuojelulaki) (1096/1996) s 47; Nature Conservation Decree (160/1997) s 22, Appendix 4; 'Threatened Species' (*Finland's Environmental Administration*, 2016) <https://www.ymparisto.fi/en-US/Nature/Species/Threatened_species> accessed 22 February 2019.

⁴⁴⁴ Nature Diversity Act s 15.

⁴⁴⁵ Regulations of 23 January 2015 No 60 on the Designation of the Arctic Fox (*Vulpes Lagopus*) as a Priority Species (Forskrift om Fjellrev (*Vulpes Lagopus*) som Prioritert Art).

⁴⁴⁶ Act of 19 June 1970 No 63 Relating to Nature Protection (Lov om Naturvern); Act on Nature Protection 2003.

⁴⁴⁷ Home Rule Order No 20 of 17 May 1989 on the Conservation of Arctic Foxes in Greenland (Hjemmestyrets Bekendtgørelse Nr 20 af 17 Maj 1989 om Fredning af Ræve i Grønland).

⁴⁴⁸ Svalbard Environmental Protection Act 2001 ch IV.

Act, the Species at Risk Act 2002, or the state and territorial equivalents.⁴⁴⁹ The protections of these acts only apply to species which are listed and therefore do not apply to the Arctic fox. This demonstrates one of the weaknesses of the US and Canadian systems which is that where a species is not listed, its protections, particularly at federal level, are extremely weak, and any protection is reliant almost entirely on state and territorial hunting rules as is shown below.

Even if Canada were to list the Arctic fox as a threatened or endangered species under the Species at Risk Act 2002, the protection which could be offered is quite limited.⁴⁵⁰ One of the greatest weaknesses of the Canadian system is that federal listing of a species only provides protection on federal land, and not on private land or on provincial or territorial land. While there is more federal land in the north than in the rest of the country, there are still huge parts of the Arctic where a species would receive no protection even if it were to be listed as endangered at a federal level. This system is very different to the USA where federal listing has an impact throughout the country but the Canadian federalism is much more decentralised than the American system and the Canadian federal government therefore has less power to make rules which impact on the provinces (and by extension the territories) than the US government does with the states. Despite the power balance, the Canadian system needs to be strengthened either through the federal listing process having a wider impact than it currently does or through coordinating between the Species at Risk Act 2002 and the provincial and territorial equivalents. One way that this could be achieved is for the territorial governments to agree to assess all federally listed species for inclusion on territorial lists within one year of the federal listing taking place. Another option is for the federal government to use its powers to extend the protections of the Species at Risk Act 2002 to territorial land under section 35 of the act and make any federally listed species protected throughout the Arctic, and the northern territories.⁴⁵¹

4.1.3.2.2. Protections

The different threat levels affect the protection status of the Arctic fox which, in turn, affects the level of protection afforded to the species. In the countries with the weakest protection, the USA and Canada, the only protections are the limits on hunting and trapping

⁴⁴⁹ Endangered Species Act 1973; Species at Risk Act 2002.

⁴⁵⁰ Species at Risk Act 2002.

⁴⁵¹ *ibid* 35.

which are outlined below; without federal, state or territorial listing, there is no other form of protection. In Greenland, the protection for the Arctic fox amounts to limitations on hunting and a protected season from 15 May to 15 September, during which no ‘taking or hunting’ is allowed.⁴⁵² These protections really go no further than those found in the USA or Canada where hunting is similarly regulated. On Svalbard, the protected for Arctic foxes (along with other species) is broader; it is unlawful to ‘hunt, capture, injure or kill’ any species of animal and it is also unlawful to damage the dens in which Arctic foxes give birth to their young.⁴⁵³ On mainland Norway, the protection granted to the Arctic fox as a priority species extends to a prohibition against removing Arctic foxes from their natural environment (whether dead or alive) and also prevent any damage or destruction to a fox.⁴⁵⁴ In addition to the protection of Arctic foxes themselves, the regulations make it unlawful to destroy their dens.⁴⁵⁵ This level of protection is not dissimilar to those found on Svalbard except that there are no exceptions for hunting on the mainland as the protection is absolute. The protections in Sweden and Finland are also absolute, as is required under the Habitats and Species Directive. In Sweden, it is illegal to capture, kill or interfere with an Arctic fox, where the action is intentional.⁴⁵⁶ The offence is seen as particularly serious where the fox is at a vulnerable point in its life cycle, such as being a cub, giving birth etc.⁴⁵⁷ In Finland, much the same protection applies, with a general protection which prevents the deliberate capture or killing of a species and the removal of its young, with the offence considered to be worse at certain points of the lifecycle.⁴⁵⁸

4.1.3.2.3. Critical Habitat

In terms of other measures put in place to protect the Arctic fox, there are no countries which have designated a critical habitat specifically for the Arctic fox in the way that they have for the polar bear. As a species under a strict protection order in Finland, the Arctic fox’s habitat would be protected from deterioration and destruction if it were to be designated as a habitat.⁴⁵⁹ It is not clear whether or not this has yet occurred and it is likely

⁴⁵² Home Rule Order No 20 of 17 May 1989 on the Conservation of Arctic Foxes in Greenland; Landsting Act No 12 of 29 October 1999 on Taking and Hunting (Landstingslov Nr 12 af 29 Oktober 1999 om Fangst og Jagt).

⁴⁵³ Svalbard Environmental Protection Act 2001 s 30.

⁴⁵⁴ Priority Species Regulations (Arctic Fox) 2015 s 3.

⁴⁵⁵ *ibid.*

⁴⁵⁶ Species Protection Ordinance (2007:845) s 4.

⁴⁵⁷ *ibid.*

⁴⁵⁸ Nature Conservation Act (1096/1996) s 39.

⁴⁵⁹ *ibid.* 47.

that it has not because the Arctic fox is more or less extinct in Finland so there is no habitat which is in use by Arctic foxes. In Sweden, the protection for mammals listed in the Species Protection Ordinance prohibits the intentional destruction to or damage of an Arctic fox's habitat, where that habitat is used for breeding or for resting but it does not result in the specific designation of a critical habitat.⁴⁶⁰ The Norwegian rules regarding priority species such as the Arctic fox allow for habitat protection where that land provides a place for the species to undertake 'specific ecological functions'. This rule provides for a broader habitat protection than either for Finland or for Sweden because 'specific ecological functions' includes places where the species feeds, moults, winters, migrates through as well as places where it rests and breeds as in Sweden.⁴⁶¹ However, while these rules allow such a habitat protection to be implemented, in the case of the Arctic fox, the regulations protecting habitat are slightly less wide ranging, prohibiting the destruction of empty dens and any act which could disturb individual Arctic foxes.⁴⁶² The regulations, while not as strong as they are permitted to be, also enable the Norwegian Miljødirektoratet to enter into management agreements with landowners on whose land Arctic foxes are found to ensure that the habitat is properly conserved.⁴⁶³ There are no critical habitats for Arctic foxes in Svalbard, Greenland, Canada or the USA, although strict access rules in the national parks and nature reserves on Svalbard and Greenland do provide absolute protection for ecosystems on which Arctic foxes rely (see appendix C.5 and appendix D.5.2 below). In addition to these types of habitat protection, other national parks, nature reserves and protected land, across all of the jurisdictions in this study provide some level of protection, albeit not directly for the Arctic fox. The lack of critical habitats for the Arctic fox is an obvious omission in the work undertaken to protect it. Critical habitats should be designated in all countries where it is possible to do so.

4.1.3.2.4. Population Management

Protection of the Arctic fox in Norway, Sweden and Finland extends beyond prohibiting certain behaviours which could harm the species and into active management of the population to encourage recovery. There are a number of different ways in which this is taking place. The InterReg Felles Fjellrev II project is a collaboration between Norway,

⁴⁶⁰ Species Protection Ordinance (2007:845) s 4.

⁴⁶¹ Nature Diversity Act s 24(a),(b).

⁴⁶² Priority Species Regulations (Arctic Fox) 2015 s 3.

⁴⁶³ *ibid* 4.

Sweden and Finland, part funded by the European Union, aimed at restoring the population of the Arctic fox, and even reintroducing the Arctic fox to Finland where fewer than ten individuals are thought to exist and no foxes have been known to nest since 1996.⁴⁶⁴ One of the aims of the project is to re-establish a large enough population of Arctic foxes across Norway, Sweden and Finland so as to increase genetic diversity.⁴⁶⁵ The Arctic Fox Together project is a similar partnership, also between Norway, Sweden and Finland, with the aim of monitoring and conserving Arctic foxes.⁴⁶⁶ There is also a common management plan established between Norway and Sweden, to which Finland also adheres.⁴⁶⁷ This plan covers Norway's captive breeding programme, the reduction, by culling, of red foxes and supplementary feeding of Arctic foxes.⁴⁶⁸ No such plans or programmes exist in the other countries studied and, for example, in Alaska, the Arctic fox is not even included in the Alaska Wildlife Action Plan.⁴⁶⁹ If the Arctic fox, and other species like it, are to be protected then they will need to be included in wildlife management plans and positive action will be needed to manage population figures. It would be possible to do this even if the Arctic fox is not or cannot be granted direct legal protection.

4.1.3.2.5. Hunting

The strict protection laws in Finland, Sweden and mainland Norway prohibit the hunting of Arctic foxes and thereby provide complete protection. The few situations where a permit can be obtained to kill an Arctic fox include where the purpose is scientific or research related, it is for the protection of plants, animals, livestock or property and where public health and safety are threatened.⁴⁷⁰ Even in such cases, the killing is only permitted when there are no other suitable alternatives and where there will be no threat to the 'favourable conservation status' of the species.⁴⁷¹ The situation is quite different in the other Arctic states where, in line with their limited protection of Arctic foxes, hunting and trapping are

⁴⁶⁴ Mats Ericson, *The Arctic Fox in Scandinavia* (Interreg Felles Fjellrev); 'Felles Fjellrev II' (*Interreg.no*) <<https://interreg.no/prosjektbank/fjellets-fjellrev-ii/>> accessed 18 June 2019.

⁴⁶⁵ Ericson (n 464); 'Felles Fjellrev II' (n 464).

⁴⁶⁶ 'Arctic Fox Together' (*Interreg.no*) <<https://interreg.no/prosjektbank/arctic-fox-together/>> accessed 18 June 2019.

⁴⁶⁷ 'Åtgärdsprogram för fjällräv, 2017-2021 (*Vulpes lagopus*)' 73.

⁴⁶⁸ *ibid.*

⁴⁶⁹ 'Alaska Wildlife Action Plan 2015'.

⁴⁷⁰ Habitats and Species Directive (92/43/EEC), Article 16; Nature Conservation Act (1096/1996) s 49; Species Protection Ordinance (2007:845) s 14; Nature Diversity Act s 18.

⁴⁷¹ Habitats and Species Directive (92/43/EEC), Article 16; Nature Conservation Act (1096/1996) s 49; Species Protection Ordinance (2007:845) s 14.

both allowed. There are, of course, limits on hunting and these vary across the jurisdictions. In Canada, unlike for the polar bear, there is no sport hunting of Arctic foxes; in the Yukon and the Northwest Territories only those with an indigenous right to hunt under a land claim agreement may hunt for Arctic fox and in Nunavut, only residents may hunt or trap although only Inuk may do so without a licence and consent of the local hunters and trappers association.⁴⁷² The situation in Svalbard is comparable to that in Nunavut as it allows hunting but only by those who are resident on Svalbard and not tourists or sport hunters.⁴⁷³ Those residents wishing to hunt require a licence and must have taken the hunting proficiency test.⁴⁷⁴

Unlike in the other countries, sport hunting and trapping of Arctic foxes is allowed in both Greenland and in the USA. There are limits, although these are quite different in the two countries. In Greenland a sport hunter who is not resident in Greenland must hold a payment hunting licence and be accompanied by someone with a licence to arrange payment hunting in order to be allowed to hunt Arctic fox.⁴⁷⁵ This means that such hunting may only take place with an approved hunting organiser. Those resident in Greenland may hunt with either a professional or leisure hunting licence.⁴⁷⁶ In comparison, in the USA, anyone may obtain a hunting licence which permits the taking of Arctic fox and any residents of Alaska as well as other US citizens may also obtain a licence to trap Arctic fox.⁴⁷⁷ While sport hunters seeking big game in Alaska must be accompanied by a registered guide (or close family member), Arctic fox is not considered to be big game so this requirement does not apply.⁴⁷⁸ Like with the polar bear, sport hunting is unnecessary and undermines work being undertaken to protect the Arctic fox in Europe. Hunting of Arctic species, all of which are likely to become vulnerable in the coming decades as a

⁴⁷² Yukon Wildlife Act 2002 ss 200(1), 204, 207; Northwest Territories Wildlife Act 2013 ss 17, 45; Northwest Territories Wildlife General Regulations 17, Schedule A, Part 2; Nunavut Wildlife Act 2003 ss 2, 10, 18, 19, 24; Inuvialuit Final Agreement 1984; Nunavut Land Claims Agreement.

⁴⁷³ Regulations of 24 June 2002 No 712 on the Harvesting of the Fauna on Svalbard (Forskrift om Høsting på Svalbard) s 11.

⁴⁷⁴ Svalbard Environmental Protection Act 2001 s 32; Svalbard Hunting Regulations 2002 s 15.

⁴⁷⁵ Home Rule Order No 22 of 19 August 2002 on Payment Hunting and Fishing (Hjemmestyrets Bekendtgørelse Nr 22 af 19 August 2002 om Betalingsjagt og -Fiskeri) ss 15–19; 'Payment Hunt for Tourists' (*The Greenland Business Portal*) <<https://www.businessingreenland.gl/da/Fiskeri,-Fangst-og-Landbrug/Fangst-og-jagt/Jagtbeviser-og-fisketegn/Betalingsjagt-til-turister>> accessed 14 June 2019.

⁴⁷⁶ Home Rule Order No 20 of 17 May 1989 on the Conservation of Arctic Foxes in Greenland s 1.

⁴⁷⁷ Alaska Hunting Regulations 2018-2019 9–10; Alaska Trapping Regulations 2018-2019 48, 7–8.

⁴⁷⁸ Alaska Hunting Regulations 2018-2019 10, 19.

result of climate change, should be limited to local people, to necessary scientific research and to the protection of life and property.

The USA operates a system of bag limits for many species, of which Arctic fox is one. In the Arctic Game Management Units (23-26), there is an annual bag limit of two foxes per hunter per year where the foxes are caught through hunting but there is no annual limit where they are caught through trapping.⁴⁷⁹ This system is not reflected in Greenland nor in Svalbard, where there are no annual limits on those hunting or trapping Arctic foxes.⁴⁸⁰ In Greenland and the USA there are hunting seasons lasting between September and the spring (March to April depending on location), with Arctic foxes protected outside this time.⁴⁸¹ The trapping season in the Alaska and the hunting and trapping season in Svalbard are both slightly shorter and do not begin until November.⁴⁸² Generally though, in all three jurisdictions, Arctic fox may only be taken during the Autumn and Winter and are protected during the Spring and Summer breeding periods.

4.1.3.2.6. Enforcement

Finally, in all of the countries studied, there are provisions for the enforcement of the rules on the protection of Arctic fox. As with the enforcement of the protection of polar bears, the punishments available to the courts differ in the various jurisdictions. As is true across wildlife protection, the fines in Canada are the highest. Fines in Nunavut can be as high as one million Canadian dollars for corporate offenders, and twice this for a second or subsequent offence, although they are lower in both the Yukon and the Northwest Territories where the maximum fine is 50,000 CAD for an individual and 100,000 CAD for a company.⁴⁸³ In Alaska, most offences in relation to Arctic foxes will be considered to be misdemeanours where the fine can be up to \$1,000.⁴⁸⁴ In the Nordic countries, fines are used as punishment but they are linked to the assets of the perpetrator rather than being a set maximum amount. In most of the countries studied, a breach of the rules relating to

⁴⁷⁹ Alaska Administrative Code, AAC 5.85.060; Alaska Hunting Regulations 2018-2019 140.

⁴⁸⁰ '2018 Kvoter' (*Naalakkersuisut*, 2018)

<<https://naalakkersuisut.gl/da/Naalakkersuisut/Departementer/Fiskeri-Fangst-og-Landbrug/Fangst-og-jagtafdelingen/Kvoter-og-andre-begraensninger/2018-kvoter>> accessed 8 April 2019.

⁴⁸¹ Alaska Hunting Regulations 2018-2019 140.

⁴⁸² Alaska Trapping Regulations 2018-2019 37, 42; Svalbard Hunting Regulations 2002 s 7.

⁴⁸³ Yukon Wildlife Act 2002 s 161; Northwest Territories Wildlife Act 2013 s 148; Nunavut Wildlife Act 2003 ss 220–221.

⁴⁸⁴ Alaska State Code, AS 16.05.430.

Arctic foxes can result in a prison sentence instead of a fine. These range from up to six months in Alaska and Nunavut to a maximum of four years for an aggravated nature conservation offence in Finland, with most countries allowing prison sentences of up to about a year except where considerable environmental damage has occurred.⁴⁸⁵ The only country where prison sentences are not used is Greenland.⁴⁸⁶

4.1.3.2.7. Conclusion

The protection of the Arctic fox is interesting as it clearly shows two very different approaches in Europe and in North America. Like with the polar bear, the analysis has shown that while all of the Arctic nations included in this study have species protection systems in place, the outcomes of those systems can be very different when applied to particular species. This section has shown that the Arctic fox lacks any protection beyond hunting limits in the USA, Canada and Greenland, while it is heavily protected in Norway, Sweden and Finland. This section has recommended that Arctic species such as the Arctic fox, and other species which will be affected by climate change and habitat loss as a result of climate change, should be listed as endangered or threatened species, following the example of the USA in relation to the polar bear (see appendix A.6.1 below). This section has also recommended that Canada should take action to provide protection to federally listed species throughout the country, not just on federally owned land. A number of possible models for this were suggested such as an agreement with the territories to consider listing federally listed species within one year of federal listing or the federal government using the powers under the Species at Risk Act 2002 to extend protection to territorial land. Other recommendations made by this section are that critical habitats and population management schemes should be adopted for the Arctic fox and other similar species and that sport hunting of all Arctic species should be ended, particularly in light of the vulnerability of Arctic species because of climate change.

4.1.4. Joint Action on Protecting Arctic Species

What becomes clear on completing the identification phase of comparison, particularly by focussing on polar bears and Arctic foxes, is the significant difference which the threat level makes to the protection of a species. In Finland, Sweden and Norway where the

⁴⁸⁵ *ibid*, AS 16.05.430; Nunavut Wildlife Act 2003 s 221.

⁴⁸⁶ Home Rule Order No 20 of 17 May 1989 on the Conservation of Arctic Foxes in Greenland s 7.

Arctic fox is considered to be a severely threatened species, the level of protection is high, with an absolute prohibition on hunting, capturing, killing, interfering with or disturbing a species. In the USA and Canada where the Arctic fox is not considered to be an endangered or threatened species, there are no federal protections at all. This leaves a situation where some Arctic nations are actively trying to protect and re-introduce the species, while others allow the species to be hunted for sport. Time and time again when conducting the analysis the point becomes clear that, in terms of what is prohibited, protection of habitats and even the length of prison sentences imposed for breaching the rules, the protection of the polar bear, the Arctic fox, and by extension other species, rely heavily on the designated threat level. There are some protections for the Arctic fox arising from the state and territorial rules on hunting and the Canadian Land Claim Agreements which limit who is entitled to hunt Arctic foxes but this protection is predicated on the ability of certain people to hunt or trap Arctic foxes and, for the USA and Greenland, that includes the right to hunt Arctic foxes purely for sport. It is also reliant on the action taken by state and territorial governments which are less accountable on an Arctic and global scale than the national or federal governments. Other species which are considered not threatened but which are less culturally important to indigenous Arctic communities and so are not protected under a Land Claim Agreement receive even less protection than the Arctic fox.

There are a number of reasons why a country may choose not to protect species which it considers not to be threatened such as the Arctic fox. Protecting species can be costly and resource intensive. It takes a significant amount of governmental resource, in time, money and expertise, to collate the information needed to protect a species, to develop regulations to protect that species (where regulations are needed) and to enforce the regulations. If the Arctic fox, or another species were to be protected, there would be a cost implication on any party interacting with the species in some form, whether through hunting, the development of land on which the species exists or relies or the implementation of projects which could affect the species. The need to acquire permits, permission or to conduct further environmental assessments can cost money and cause delays. Although these costs may be considered to be a price worth paying for the protection of a species which is threatened or endangered, they may well be considered too high a price for a species which remains common. Countries in which a species, such as the Arctic fox, is not threatened may decide that their resources would be better directed at species which are currently threatened within that jurisdiction. Such a decision makes sense, particularly when

resources are scarce but there are other, inferior, reasons for the failure to protect certain species. Moores et al identified a number of poor reasons for not listing species including a desire by wildlife agencies not to take on additional responsibility and a bias, in this case by the Canadian government, against northern species.⁴⁸⁷ In Canada, in particular, in the same way as for polar bears, there is a disincentive to list any species which is relied upon by indigenous communities under the Species at Risk Act 2002 because of the implications for indigenous people and the inability to allow exceptions to the protections under the act.⁴⁸⁸ It is not just in Canada, nor is it just in relation to the Arctic fox that species remain unprotected for potentially poor reasons. In Greenland, the system requires specific regulations to be introduced in order to protect a species.⁴⁸⁹ While all of the Greenlandic mammals are now protected, no other animal species and no plants are protected at all. There seems to be no particular reason for this except that Naalakkersuisut has not yet taken the time or had the resources to draft the necessary regulations. In Norway, only 13 species have been listed to date as priority species despite there being far more species than this which could be protected. Each of these countries should consider whether further protections should be offered to Arctic species.

As is discussed below at 4.2.5, the listing or otherwise of a species within a country is an inherently political matter. It is the electorate, through their elected representatives, who make the decisions about which species to protect and how to direct resources within their own jurisdiction. However, when there is a defined geographical region, such as that found in the Arctic, where all of the nations are facing similar threats to their wildlife species, the wide variance in protection levels, based primarily on the real, or perceived, threat to the species within a jurisdiction, with fairly little concern for the population levels elsewhere in the region, is not a good way to ensure the survival of a species. The vastly different protection levels for the Arctic fox demonstrate this well. For some species, such as the polar bear, international treaties have been drawn up to coordinate the protection of the relevant species across the Arctic. It could be argued that more work should be done, perhaps by the Arctic Council, to establish further coordination of protection for Arctic species but reaching agreement on species which are less iconic than the polar bear may

⁴⁸⁷ AØ Mooers and others, 'Biases in Legal Listing under Canadian Endangered Species Legislation' (2007) 21 *Conservation Biology* 572.

⁴⁸⁸ Species at Risk Act 2002.

⁴⁸⁹ Act on Nature Protection 2003 ss 5–10.

prove difficult. Another way in which this discrepancy could be avoided would be for countries to introduce a baseline protection within their endangered species provisions for species which are endangered in other parts of a defined geographical region, such as the Arctic. The baseline would be fairly minimal protection but it would prevent, for example, sport hunting of a species, or other unnecessary interferences with the species. Such a proposal may not be necessary in countries where there is already a minimum level of protection for all wildlife species, such as in Norway, but it would be particularly helpful in countries where listing a species takes more resource than may be available, such as in Greenland, or where the political implications of listing a species, such as the impact on a powerful lobby group such as hunters or the need to accept climate change, make it difficult adequately to protect a species. There would, of course, need to be some checks and balances to ensure that one country did not become subject to the overreaction of another country in attempting, for example, to protect a species which was a pest, but a bare minimum level of protection for species endangered, or even threatened, elsewhere in the Arctic should be considered.

4.1.5. Conclusion

The country studies have each set out, in some considerable detail, the endangered species protection system of the jurisdictions in each of the Arctic countries considered by this study. In order to be able to compare this level of detail across so many jurisdictions it was necessary to use specific examples. In this part of the comparative analysis, two species were selected on which the comparison could be based. While this is not a perfect solution because of the risk that a country may treat the selected species very differently to other species, it would be impossible in the space allowed to consider all Arctic species. By comparing and contrasting the treatment of two iconic Arctic species, the polar bear and the Arctic fox, it has been possible to assess the effectiveness of the endangered species protection systems in the Arctic, to highlight any omissions and to make recommendations based on the good practice seen in other Arctic jurisdictions. As a result of some of the omissions which have been identified, this section has also made recommendations about joint action which could be taken to protect Arctic species.

The recommendations which have been made in this chapter are:

- The USA should implement restrictions on seeking out polar bears in order to prevent polar bear safaris from taking place, given the risk that these activities can disturb polar bears.
- Svalbard and Greenland should introduce a consultation requirement similar to that found in the USA, whereby government departments making decisions which could affect an endangered or threatened species must consult with the US Fish and Wildlife Service to consider the implications of the project on the species and to find ways to limit the impact. This would ensure that species protection is given priority in governmental decisions.
- Canada should find a way to increase the threat status of the polar bear to higher than a being a Species of Special Concern. This could be done either through the Species at Risk Act 2002 or the Marine Mammal Regulations 1993. Additional action to protect the polar bear would also be needed from the territories.
- If the impact of listing Arctic species as threatened on indigenous people is preventing the Canadian government from listing such species, the Species at Risk Act 2002 should be amended to allow the federal government to grant exceptions to for subsistence hunting for indigenous people.
- The Canadian system of species protection is currently ineffective because of the split in responsibility between federal and territorial authority. Action is needed to enhance the protection of species listed at a federal level, either by the territories committing to consider a species for listing within one year (or other suitable time period) of a species being listed as a species at risk. Alternatively, the federal government should use its power to extend the protections on federal land to territorial land under section 35 of the Species at Risk Act 2002.
- Sport hunting of Arctic species is unnecessary and should be ended. Canada, and the territories which currently allow it, should end sport hunting of polar bears and

allow only indigenous subsistence hunting. Those countries which allow sport hunting of other species, such as the USA and Greenland in relation to Arctic fox should take measures to end the practice. Hunting in the Arctic should be limited to locals engaging in subsistence or cultural practices, scientific research and the protection of people and property.

- Those countries (USA, Canada and Greenland) which have not yet created protections for the Arctic fox should consider listing it as threatened, or taking other action to ensure that the Arctic fox (and other similar species) is protected, on the basis that climate change is likely to pose a severe threat to the survival of Arctic adapted species. Designating a critical habitat and including the Arctic fox and other similar species in wildlife management plans should also be considered.
- Having effectively drafted regulations for the protection of all mammal species on the island, Greenland should consider expanding its protection to other species of plants and animals.
- Norway should consider whether there are other Arctic species which would benefit from being listed as priority species and take action to list them.
- Regional action should be taken to protect Arctic species which are vulnerable in one part of the Arctic, even if they are common in other parts of the Arctic. This could involve the Arctic nations entering into treaties to protect Arctic species in line with the Agreement on the Conservation of Polar Bears or the nations agreeing to offer baseline protections to species which have been listed in other Arctic countries, even if they are not willing to list the species as protected in their own country. The Arctic Council could be an appropriate forum for negotiating a treaty to this effect.

4.2. Part II: The Use of Science in the Selection of Species for Protection in the Arctic

4.2.1. Introduction

It is important to understand how species are chosen for protection across the Arctic and how species can be added to the list of those which enjoy protection. It is no use having a completely static system as this cannot adapt when changes in circumstances in a country threaten species which previously were thriving. Climate change is an excellent example of this, and the ability of the endangered protection systems in the Arctic to adapt to new threats such as climate change is discussed later in this chapter. The USA's Endangered Species Act, for example, has allowed the USA recently to list the polar bear and the ice seals as threatened species as a result of climate change, whereas in 1973 when the act was passed, the sea ice habitat on which these species rely was intact and their survival was not threatened.⁴⁹⁰ The selection of species to be protected is, in most Arctic countries, an inherently political decision as it is tied up with law making and regulation. Most countries, however, appear to desire some sort of scientific basis for species protection decisions but the extent to which this is used differs. For some countries, notably Canada, an independent scientific committee makes recommendations about the protection of species. This section argues that scientific evidence, which includes traditional knowledge, is the only basis on which species protection decisions should be made and that an independent scientific committee, such as is found in Canada's COSEWIC committee is the best model found in the Arctic, albeit acknowledging the limitations of the Canadian Species at Risk Act. This section also argues that although species protection decisions are necessarily, and should remain, political decisions, a greater emphasis should be placed on scientific evidence and the political role should be limited to oversight and approval.

4.2.2. A Comparative View of the Models for and the Use of Science in Species Protection

There are a number of different models for the selection of species for protection under species protection legislation across the Arctic. The models break down into two main categories, the North American models where new species can be protected by way of a secondary legislation following recommendations by either a scientific committee, a political body, or both, and the European models where in order to protect a species, the

⁴⁹⁰ Endangered Species Act 1973.

act which allows for nature conservation must be amended. The different models use scientific knowledge to a greater or lesser extent when carrying out these various changes. In the USA, in order for a species to be listed as endangered or threatened, a request will be made by an interested party to one of the relevant government agencies, or the agency may act on its own initiative.⁴⁹¹ Once a decision has been made that the species may be a candidate for protection, a biological assessment, in the form of a Species Status Assessment is conducted, which collates scientific information about the species' ecology and its current and predicted future conservation status.⁴⁹² This information is peer reviewed and public comments are sought before it is used as part of the overall listing decision made by either the US Fish and Wildlife Service or the National Marine Fisheries Service.⁴⁹³ Under the American system, a significant amount of scientific knowledge is collected and peer review of that knowledge is sought, peer review playing an important role in the scientific method in ensuring that the information is accurate and high quality.⁴⁹⁴ Despite this, the system is inherently political as it is conducted entirely by a federal government agency which serves both public interest and, as part of the executive, the President's agenda. The agency, although required to reach their decision 'solely on the basis of the best scientific and commercial data available' is not required to accept all of the findings of the scientific evidence or the peer review as long as the decision which it reaches is not 'arbitrary and capricious' which is the standard set for judicial review by the Administrative Procedure Act.⁴⁹⁵ There is also a problem that the agency reaching the decision is entirely involved in selecting the scientists and peer reviewers, and while the agency is supposed to select the 'best scientific' knowledge, there is no definition of the term 'best' and there is no independence between the scientific evidence and the government agency. In comparison, the system in Canada seems to offer much more independence as COSEWIC, the body which produces the assessment of species in Canada, is an independent advisory committee to the Minister of Environment and Climate Change.⁴⁹⁶ Members of COSEWIC, who are supposed to have expertise in 'conservation biology' or similar disciplines, are expected to act in an independent manner when

⁴⁹¹ 5 USC § 553; Endangered Species Act 1973 § 1533(b)(3)(A).

⁴⁹² *Species Status Assessment* (US Fish and Wildlife Service 2016).

⁴⁹³ *ibid.*

⁴⁹⁴ Notice of Interagency Cooperative Policy on Peer Review, 59 Federal Register 34,270 (1994).

⁴⁹⁵ Endangered Species Act 1973 § 1533(b)(1)(A); Administrative Procedure Act §706(2)(A).

⁴⁹⁶ Species at Risk Act 2002 s 14.

exercising the discretion which they are given under the Species at Risk Act 2002.⁴⁹⁷ Once it has decided to assess a species for protection, the committee prepares a status report on that species which contains the best ‘scientific knowledge, community knowledge and aboriginal traditional knowledge’ but does not consider economic, social or political factors even if these could be relevant.⁴⁹⁸ This report is then used in the assessment of the threat posed to the species.⁴⁹⁹ This system is ostensibly independent as COSEWIC is an independent committee which is tasked with applying scientific and traditional knowledge to the question about whether or not a species should be protected. However, while the Species at Risk Act 2002 appears to contemplate the committee being made up solely of experts in scientific and traditional knowledge, the reality is that the committee has a high proportion of governmental representatives. Of the 31 members of the committee, there is one representative from each of the 13 territorial and provincial government wildlife agencies and one representative from each of the four federal government wildlife agencies whilst there are only three non-governmental scientists appointed.⁵⁰⁰ With over half of the members of the committee being government representatives, it is hard to consider the committee an entirely independent scientific body, and unlike in the USA, the reports produced by the committee are not subject to peer review although the species sub-committees, which include scientists, review the reports.⁵⁰¹ Secondly, even if COSEWIC is independent, it does not make the decision to list a species under the Species at Risk Act 2002, it merely acts as an advisory body.⁵⁰² The final decision is taken by the Minister of Environment and Climate Change and the Governor in Council, neither of whom are required to follow the recommendations of the COSEWIC assessment, although they are required to take the assessment into account.⁵⁰³ The Minister and the Governor, however, are also required to consult with other relevant ministers and with any wildlife management boards in the area where the species is found; they are also not prohibited from considering

⁴⁹⁷ *ibid* 16 (2), (6).

⁴⁹⁸ *ibid* 15(2); Environment and Climate Change Canada, ‘How COSEWIC Works’ (*Government of Canada*, 17 October 2017) <<https://www.canada.ca/en/environment-climate-change/services/committee-status-endangered-wildlife/how-it-works.html>> accessed 28 June 2018; Arne O Mooers and others, ‘Science, Policy, and Species at Risk in Canada’ (2010) 60 *BioScience* 843, 844.

⁴⁹⁹ Species at Risk Act 2002 s 21(1).

⁵⁰⁰ Environment and Climate Change Canada, ‘Organizational Structure: COSEWIC’ (*Government of Canada*, 17 October 2017) <<https://www.canada.ca/en/environment-climate-change/services/committee-status-endangered-wildlife/organizational-structure.html>> accessed 3 May 2019.

⁵⁰¹ Mooers and others (n 498) 843.

⁵⁰² Species at Risk Act 2002 s 27.

⁵⁰³ *ibid*.

economic, social and political factors in reaching their conclusion.⁵⁰⁴ As such, although scientific evidence on which a decision can be made is provided to influence the policy decision, the final result is still a political decision and the scientific information can be disregarded if so desired. Thirdly, as always with the Species at Risk Act 2002, it only applies to species found on federal land.⁵⁰⁵ The territorial species protection systems in the Arctic each have different systems for selecting species for protection. Of these, by far the strongest system is the one in the Northwest Territories where the Species at Risk Committee conducts a biological assessment in a similar way to way in which COSEWIC conducts assessments at the federal level, using scientific knowledge and traditional and community knowledge.⁵⁰⁶ Similarly to COSEWIC, the committee includes a number of government representatives so cannot be considered to be truly an independent scientific committee but, unlike at the federal level, the final decision about listing of a species within the Northwest Territories is, where possible, made by consensus among the members of the Conference of Management Authorities, rather than directly by the territorial minister.⁵⁰⁷ The Conference of Management Authorities contains a mixture of different governmental representatives as well as the wildlife management boards so it is still a political body but with wider representation of the affected parties than is possible at a federal level.⁵⁰⁸ The Conference may, if it wishes, choose not to follow the advice of the Species at Risk Committee so although it receives scientific evidence regarding the risk posed to species, the final decision may be made on other factors.⁵⁰⁹ In theory, the system in Nunavut should work with a scientific committee providing advice to the minister who reaches the final decision on including a species on the Nunavut List of Species at Risk but, although the act allows for it, the regulations bringing this system into force have yet to be made.⁵¹⁰ A much weaker system exists in Yukon which, in a manner that is more like the European systems than the other North American ones, relies on the Minister making a decision to protect a species with no independent scientific body to make recommendations, or even any requirement for the minister to use scientific evidence when reaching a decision.⁵¹¹

⁵⁰⁴ *ibid.*

⁵⁰⁵ *ibid* 6.

⁵⁰⁶ Species at Risk (NWT) Act 2009 ss 25, 28(1)(b), 30(4)(a).

⁵⁰⁷ *ibid* 36, 37.

⁵⁰⁸ *ibid* 11(2).

⁵⁰⁹ *ibid* 36, 37.

⁵¹⁰ Nunavut Wildlife Act 2003 ss 134–147.

⁵¹¹ Yukon Wildlife Act 2002 s 8; Wildlife Regulation — Yukon Regulation O.I.C. 2012/84, Schedule A, Part 5.

The European systems are quite different to the systems found in North America, and provide much weaker inclusion of scientific evidence and peer review into the process of selection of species for protection. In Finland and Sweden, the species which are protected are wholly or mainly drawn from the lists found in the European Union's Habitat and Species Directive and the Birds Directive, which list, in their annexes, the species to be protected in European Union countries.⁵¹² Before the Habitats and Species Directive was adopted in 1992, the list of species to be included in the annexes was drawn up, ostensibly based on the scientific knowledge about flora and fauna available in Europe at the time.⁵¹³ The annexes to the directive were amended in 1997 following a series of seminars where scientific literature, national red lists and other information was used to ensure that the list created was the most up to date.⁵¹⁴ Since then, the annexes have only been amended when new states have joined the European Union.⁵¹⁵ When Sweden and Finland joined in 1995, a number of species found in Scandinavia were added to the list, such as the willow ptarmigan.⁵¹⁶ However, apart from these amendments, the lists found in the annexes of the Habitats and Species Directive have not been amended, despite there being considerably more scientific information available today than there was in 1992 or 1997 and despite the flora and fauna of Europe facing new challenges such as climate change.⁵¹⁷ There have been no further seminars to discuss the addition of new species, despite academics making

⁵¹² Nature Conservation Act (1096/1996); Species Protection Ordinance (2007:845); Habitats and Species Directive (92/43/EEC); Birds Directive (2009/147/EC).

⁵¹³ Pedro Cardoso, 'Habitats Directive Species Lists: Urgent Need of Revision' (2012) 5 *Insect Conservation and Diversity* 169, 170.

⁵¹⁴ Council Directive 97/62/EC of 27 October 1997 Adapting to Technical and Scientific Progress Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora 1997 (OJ L 305); Douglas Evans, 'Building the European Union's Natura 2000 Network' (2012) 1 *Nature Conservation* 11, 16.

⁵¹⁵ Act of 29 August 1994 Concerning the Conditions of Accession of the Kingdom of Norway, the Republic of Austria, the Republic of Finland and the Kingdom of Sweden and the Adjustments to the Treaties on Which the European Union is Founded, Annex I - List Referred to in Article 29 of the Act of Accession - VIII Environment - E Conservation of Wild Fauna and Flora 1994 (OJ C) 175; Act of 23 September 2003 Concerning the Conditions of Accession of the Czech Republic, the Republic of Estonia, the Republic of Cyprus, the Republic of Latvia, the Republic of Lithuania, the Republic of Hungary, the Republic of Malta, the Republic of Poland, the Republic of Slovenia and the Slovak Republic and the Adjustments to the Treaties on which the European Union is founded, Annex II - List Referred to in Article 20 of the Act of Accession - 16 Environment - C Nature Protection 2003 (OJ L) 667; Council Directive 2006/105/EC of 20 November 2006 Adapting Directives 73/239/EEC, 74/557/EEC and 2002/83/EC in the Field of Environment by Reason of the Accession of Bulgaria and Romania 2006 (OJ L 363); Council Directive 2013/17/EU of 13 May 2013 Adapting Certain Directives in the Field of Environment by Reason of the Accession of the Republic of Croatia 2013 (OJ L 158).

⁵¹⁶ Act of 29 August 1994 Concerning the Conditions of Accession of the Kingdom of Norway, the Republic of Austria, the Republic of Finland and the Kingdom of Sweden and the Adjustments to the Treaties on Which the European Union is Founded, Annex I - List Referred to in Article 29 of the Act of Accession - VIII Environment - E Conservation of Wild Fauna and Flora.

⁵¹⁷ Cardoso (n 513) 172.

suggestions for new species which should be included, and seemingly no scientific review of the lists has taken place.⁵¹⁸ Critics such as Cardoso have argued that there are a number of biases in the annexes which have led to the exclusion of many species, in particular a bias towards certain types of species, larger species and species which are more aesthetically pleasing.⁵¹⁹ He argues that the biases are so strong that ‘the lists seem to have no scientific support at all’ and ‘are far from being representative of the most endangered, vulnerable, rare or endemic species’ within Europe.⁵²⁰ There is no reason why the directive could not be regularly reviewed and the lists of species to be protected updated to take account of new scientific knowledge or the conservation status of species which are becoming vulnerable but this has not occurred. This could be similar to the way in which the Best Available Technique Reference Documents (BREFs) issued under the Industrial Emissions Directive are regularly reviewed and updated.⁵²¹

The Birds Directive has been amended a little more frequently, to take into account both new information about bird species and the conservation status of particular species; aside from when new states have joined the European Union, amendments were made four times between 1979 and a new directive being agreed in 2009.⁵²² There have, however, been no amendments to the species lists since the new directive was introduced in 2009 and there is no evidence of any scientific review taking place of the lists to ensure that they are kept up to date.⁵²³

If the lists in the Habitats and Species Directive and Birds Directive are out of date and not updated then species protection systems which are heavily based on the directive will also become out of date. The Swedish Species Protection Ordinance is particularly at risk of

⁵¹⁸ Evans (n 514) 21.

⁵¹⁹ Cardoso (n 513) 170–172.

⁵²⁰ *ibid* 172.

⁵²¹ Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on Industrial Emissions (Integrated Pollution Prevention and Control) OJ L 334; ‘Reference Documents Under the IPPC Directive and the IED’ (*The European IPPC Bureau*) <<https://eippcb.jrc.ec.europa.eu/reference/>> accessed 23 July 2019.

⁵²² Commission Directive 85/411/EEC of 25 July 1985 Amending Council Directive 79/409/EEC on the Conservation of Wild Birds OJ L 233 1985; Commission Directive 91/244/EEC of 6 March 1991 Amending Council Directive 79/409/EEC on the Conservation of Wild Birds OJ L 115 1991; Council Directive 94/24/EC of 8 June 1994 Amending Annex II to Directive 79/409/EEC on the Conservation of Wild Birds 1994 (OJ L 164); Commission Directive 97/49/EC of 29 July 1997 Amending Council Directive 79/409/EEC on the Conservation of Wild Birds 1997 (OJ L 223); Birds Directive (2009/147/EC).

⁵²³ Birds Directive (2009/147/EC).

criticism because it imports the lists found in the annexes of the Habitats and Species Directive and the Birds Directive with only a few additional species added which do not appear in the directives, such as the muskox (see appendix E.4.4 below).⁵²⁴ The Species Protection Ordinance refers to a ‘national Swedish assessment’ as the reason for including the few additional species which do not appear in the directives but nowhere else in the ordinance does it elaborate on what is meant by this term or how the assessment is carried out.⁵²⁵ The Species Protection Ordinance has been amended a number of times since it was originally brought into force in 2007 but only one of these amendments has made any changes to the appendix in which the protected species are listed and the changes that were made did not add or remove any species from the list.⁵²⁶ The Swedish Red List is prepared by the Swedish Species Information Service and a panel of experts on biology and ecology, although there does not appear to be any further peer review.⁵²⁷ The list is kept up to date, with the latest edition published in 2015 and the next edition due out in 2020, and provides information about endangered and threatened species within Sweden from a purely biological and conservation perspective.⁵²⁸ However, even though this information is available, neither it, nor any other scientific information, is used by Naturvårdsverket, the Swedish Environmental Protection Agency, to review and revise the Species Protection Ordinance to ensure that it is being used to protect species which are currently vulnerable and not just those which were listed by the European Union in 1992 or were threatened in Sweden in 2007.

While Finland is subject to the same requirements as Sweden under the Habitats and Species Directive and the Birds Directive, the Finnish Nature Conservation Act does more than just transpose the lists from the directives into national legislation.⁵²⁹ Although the species listed in the directives are given protection, as is required, the Finnish system

⁵²⁴ Species Protection Ordinance (2007:845), appendix 1.

⁵²⁵ *ibid*, appendix 1.

⁵²⁶ ‘Amendments to the Species Protection Ordinance’ (*Regeringskansliet - Government Offices of Sweden*) <<http://rkrattsbaser.gov.se/sfsr?bet=2007:845>> accessed 7 May 2019; Amendment to the Species Protection Ordinance (2007:845) (Förordning om Ändring i Artskyddsförordningen (2007:845)) (2010:1199).

⁵²⁷ Swedish Species Information Centre, ‘Artdatabankens Expertkommittéer’ (*Artdatabanken*) <<https://www.artdatabanken.se/arter-och-natur/naturvard/expertkommitteer/>> accessed 7 May 2019; *The 2015 Red List* (Swedish Species Information Centre 2015).

⁵²⁸ Swedish Species Information Centre, ‘The Red List’ (*Artdatabanken*) <<https://www.artdatabanken.se/en/the-red-list/>> accessed 11 April 2019.

⁵²⁹ Nature Conservation Act (1096/1996).

protects far more species than the ones specified by the directives.⁵³⁰ Firstly the Nature Conservation Act provides a general protection for all birds and mammals, not merely those listed in the directives.⁵³¹ Secondly, the Nature Conservation Act lists over 2,000 threatened species which are taken directly from the Finnish Red List and the list of which is kept updated, with the last amendments being made in 2013.⁵³² While there is some evidence of the use of scientific information through the basing of the threatened species list on the Finnish Red List, inclusion on the list brings with it no legal protection (see appendix F.4.3 below). Thirdly, species which are considered to be endangered may be given strict protection which requires the Ministry of the Environment to draw up a recovery plan.⁵³³ Selection of species for strict protection orders and other types of protection is undertaken by the Ministry of Environment, with environmental information provided by Suomen Ympäristökeskus, the Finnish Environment Institute, a government research body.⁵³⁴ There is, however, no independent scientific committee which makes recommendations about which species should be protected and no peer review of the data on which the government relies to reach conservation decisions.

Greenland also exhibits a European model for the selection of species to be protected although as it is not a member of the European Union, is it not required to implement the Birds and Habitats and Species Directives. There is no independent scientific committee which makes recommendations about species protection, although Naalakkersuisut, which makes the decisions regarding species protection, does have access to a Red List, a Biodiversity Country Study, the Arctic Biodiversity Assessment prepared by the Arctic Council and other scientific information produced by Pinngortitaleriffik, Greenland's Institute of Natural Resources.⁵³⁵ Pinngortitaleriffik was established by Inatsisartut to

⁵³⁰ *ibid* 5a(2), 47, 49; Birds Directive (2009/147/EC), Annex I; Habitats and Species Directive (92/43/EEC), Annex II, IV(a).

⁵³¹ Nature Conservation Act (1096/1996) s 38.

⁵³² *ibid* 46; Nature Conservation Decree (160/1997) s 21, Appendix 4; 'The 2010 Red List of Finnish Species' (*Finland's Environmental Administration*) <https://www.environment.fi/en-US/Nature/Species/Threatened_species/The_2010_Red_List_of_Finnish_species> accessed 21 February 2019.

⁵³³ Nature Conservation Act (1096/1996) s 47(1); Nature Conservation Decree (160/1997) s 22, Appendix 4 (marked with an asterisk).

⁵³⁴ 'Biodiversity' (*The Ministry of the Environment*) <<https://www.ym.fi/en-US/Nature/Biodiversity>> accessed 8 May 2019; 'Production of Environmental Information' (*Suomen Ympäristökeskus - Finnish Environment Institute*, 4 April 2019) <https://www.syke.fi/en-US/Research_Development/Production_of_environmental_information> accessed 8 May 2019.

⁵³⁵ Boertmann and Bay (n 371); Dorte Bugge Jensen and Kime Diget Christensen, *The Biodiversity of Greenland – A Country Study* (Pinngortitaleriffik, Grønlands Naturinstitut, Greenland Institute of Natural

provide scientific information to Naalakkersuisut. It is an agency under the Ministry of Infrastructure, Climate and Environment but is required to provide advice which is ‘independent of special interests and is prepared based on scientific documentation from research and monitoring’.⁵³⁶ Naalakkersuisut still retains all of the authority to make decisions about whether or not to issue an order protecting a species and there is no requirement in the Act on Nature Protection that these decisions be made on the basis of scientific evidence.⁵³⁷

In most ways, Norway is similar to the other European countries, except that, like Greenland, Norway is not subject to the Birds and Habitats and Species Directives and, like Greenland and Sweden but unlike Finland, there is no direct link between the Norwegian Red List and the Norwegian Nature Diversity Act.⁵³⁸ Any decisions made by the Ministry of Climate and Environment under the Nature Diversity Act must be made using ‘scientific knowledge’ which is presumed to be that which is objective, based on scientific methods and verifiable.⁵³⁹ As the Norwegian system works on the basis of a general protection for all animals, the main time when discretion is used is in the designating of priority species.⁵⁴⁰ These decisions are made by the government but must be made on the basis of ‘scientific criteria’ and requests may be made for the consideration of a species to be included in the, currently very minimal, list.⁵⁴¹ While the Norwegian Red List, one source of scientific information on which the Ministry of Climate and Environment may rely, is prepared by expert committees appointed by the Norwegian Biodiversity Information Centre, the centre itself, an agency of the Ministry, has the final say over the inclusion of any particular species on the list.⁵⁴² Like in Finland, Sweden and Greenland, there is no independent body

Resources 2003); *Arctic Biodiversity Assessment 2013* (Arctic Council and Conservation of Arctic Flora and Fauna 2013); ‘Pinngortitaleriffik - Grønlands Naturinstitut’ <<http://www.natur.gl/index.php?L=3>> accessed 8 May 2019.

⁵³⁶ Landsting Act No 6 of 8 June 1994 on the Greenland Institute of Natural Resources (Landstingslov Nr 6 af 8 Juni 1994 om Grønlands Naturinstitut) ss 1–4; ‘Objective and Organisation’ (*Pinngortitaleriffik - Grønlands Naturinstitut*) <<http://www.natur.gl/en/the-institute/objective-and-organisation/>> accessed 8 May 2019; ‘The Institute’ (*Pinngortitaleriffik - Grønlands Naturinstitut*) <<http://www.natur.gl/en/the-institute/>> accessed 8 May 2019.

⁵³⁷ Act on Nature Protection 2003 ss 5–10.

⁵³⁸ *Norwegian Red List of Species* (n 309); Nature Diversity Act.

⁵³⁹ Nature Diversity Act s 8; Bugge (n 261) 191.

⁵⁴⁰ Nature Diversity Act ss 23, 24.

⁵⁴¹ *ibid.*

⁵⁴² *Norwegian Red List of Species* (n 309); Henriksen and Hilmo (n 310) 6; Ministry of Education and Research, ‘The Norwegian Biodiversity Information Centre’ (*Government.no*, 3 January 2018) <<https://www.regjeringen.no/en/dep/kld/organisation/Subordinate-agencies/the-norwegian-biodiversity-information-c/id2583290/>> accessed 8 May 2019.

which assesses the threat to endangered species and makes recommendations as to their protection, although unlike in Finland and Sweden, the Norwegian Nature Diversity Act does require the government to rely on scientific knowledge in reaching its decisions. This is not to say that the governments do not rely on scientific knowledge but there is a noticeable lack of independence from government in the production and use of that knowledge. It is also notable in the European systems that there is no mention of traditional knowledge such as that which would be held by the Sami communities, unlike in Canada where such knowledge is expressly relied upon by COSEWIC.

4.2.3. The Role of Science in Species Protection

The use of scientific evidence is important in decision making processes regarding the protection of endangered and threatened species. Fisher identifies three roles which science plays in any type of environmental regulation.⁵⁴³ Firstly, science identifies a problem, such as a reduction in the number of a particular species or a worrying change in the behaviour of a population.⁵⁴⁴ Secondly, having identified a problem, science legitimises the legal and regulatory actions taken to protect a species.⁵⁴⁵ The exercise of governmental power in endangered species protection, often necessarily exercised in such a way as to deprive individuals of property or other rights, relies on science to provide the evidence that the actions are not arbitrary.⁵⁴⁶

According to Fisher, the third role played by science is that scientific knowledge influences the creation of appropriate policy, allowing policy makers to reach decisions, set standards and identify solutions.⁵⁴⁷ The traditional theories regarding science and policy articulate a linear relationship where knowledge is produced in an economic and social vacuum and is then fed to policy makers who base their decisions on the finding of the scientists.⁵⁴⁸ In reality, of course, it is impossible to produce any form of knowledge, scientific or

⁵⁴³ Elizabeth Fisher, Emma Lees and Jorge E Viñuales, 'Sciences, Environmental Laws, and Legal Cultures: Fostering Collective Epistemic Responsibility', *The Oxford Handbook of Comparative Environmental Law* (Oxford University Press 2019) 751–753
<<https://www.oxfordhandbooks.com/view/10.1093/law/9780198790952.001.0001/law-9780198790952-chapter-33>> accessed 23 July 2019.

⁵⁴⁴ *ibid.*

⁵⁴⁵ *ibid.*

⁵⁴⁶ *ibid.*

⁵⁴⁷ *ibid.*

⁵⁴⁸ Jane Hunt and Simon Shackley, 'Reconceiving Science and Policy: Academic, Fiducial and Bureaucratic Knowledge' (1999) 37 *Minerva* 141, 141.

otherwise, in a way which is completely free of the influence of values, culture, economics, politics or academic pressure.⁵⁴⁹ Hunt and Shackley explain that ‘analyses from the sociology of scientific knowledge have largely undermined the belief in science as a form of pure knowledge with direct access to the natural world’.⁵⁵⁰ Scientific knowledge used for decisions on endangered species is particularly vulnerable to being influenced because, as Noss explained ‘conservation biology is more value-laden than most sciences because it is not concerned with knowledge for its own sake but rather is directed toward particular goals. Maintaining biodiversity is an unquestioned goal of conservation biologists’.⁵⁵¹ While it may no longer be possible to view science as ‘value free, completely separate to human values’, there are good reasons for wanting the knowledge on which policy decisions are made to be as independent from political pressures as possible.⁵⁵² Decisions regarding the protection of endangered species cannot be made without accurate information about the taxonomy, biology and ecology of a species and threats posed to the survival of the species. Mooers et al describe the need for this information to be ‘sound and reliable scientific knowledge’ while Wilson et al state that the clear aim is for ‘objectivity’ in the knowledge used for decision making.⁵⁵³ Where the scientific information is tainted by bias it may not provide sufficiently reliable data on which to base policy decisions regarding the protection of species. Biases can come from political pressures, socio economic pressures and cultural pressures, such as in the selection of species to be studied (with the public tending to prefer ‘‘cute’ animals’ over ‘less fashionable...invertebrates’).⁵⁵⁴ There is also a particular risk of scientific knowledge being affected by political and economic pressures when the organisation conducting the research is a government department, an agency under the control of a government minister or is funded by the government.

⁵⁴⁹ *ibid*; Cheryl Lyn Dybas, ‘Biodiversity: The Interplay of Science, Valuation, and Policy: Report from the AIBS 2006 Annual Meeting’ (2006) 56 *BioScience* 792, 797; John RU Wilson and others, ‘The (Bio)Diversity of Science Reflects the Interests of Society’ (2007) 5 *Frontiers in Ecology and the Environment* 409, 409.

⁵⁵⁰ Hunt and Shackley (n 548).

⁵⁵¹ Reed Noss, ‘Some Principles of Conservation Biology, as They Apply to Environmental Law’ (1994) 69 *Chicago-Kent Law Review* 893, 895.

⁵⁵² Dybas (n 549) 797.

⁵⁵³ Mooers and others (n 498) 843; Wilson and others (n 549) 409.

⁵⁵⁴ Wilson and others (n 549) 411–412; Berta Martín-López and others, ‘What Drives Policy Decision-Making Related to Species Conservation?’ (2009) 142 *Biological Conservation* 1370, 1370.

4.2.4. Science, the Scientific Method and Traditional Ecological Knowledge

There is no one standard definition of scientific knowledge which is universally applicable but Okasha describes the ‘distinguishing features of science’ as lying ‘in the particular methods scientists use to investigate the world’.⁵⁵⁵ Known as the scientific method, the processes used by scientists ensure that their work is as accurate and reliable as possible. Haack explains that the scientific method is one of testing and validating hypotheses: ‘scientists make informed guesses at the answers to their questions, work out their consequences, seek out evidence to check how well those consequences hold up, and use their judgment as to how to proceed’.⁵⁵⁶ A scientist develops a hypothesis, designs experiments or takes observations to test the hypothesis and uses the results to confirm, refine or develop the hypothesis.⁵⁵⁷ While it is never possible to say that the scientist has found the ‘truth’ (Karl Popper argued that theories which people thought of as true are merely those which ‘appear to us at a certain moment of time to be better approximations to truth than other known theories’), in order to ensure that the scientific knowledge is as accurate and reliable as possible, scientific results are ideally subjected to peer review.⁵⁵⁸ Peer review is the evaluation and scrutiny of a scientific paper prior to publication by another scientist in the same field, to ensure that the work is as sound as possible.⁵⁵⁹ Peer review is not without its failures, and it has often been criticised for only assessing the methodology and the plausibility of the results, not for assessing the accuracy of the results, for sharing the same biases as the authors and for introducing biases against researches based on nationality, gender and specialty.⁵⁶⁰ It is, however, the accepted method by which scientific knowledge is reviewed and approved and research shows that scientists believe that peer review improves the quality of scientific publications, helps to identify errors and acts as a filter for poor quality work.⁵⁶¹ Without peer review, there is little effective scrutiny of scientific knowledge and risks information being subject to mistake, bias or deliberate error.

⁵⁵⁵ Samir Okasha, *Philosophy of Science* (Oxford University Press 2002) 1–2.

⁵⁵⁶ Susan Haack, ‘Irreconcilable Differences? The Troubled Marriage of Science and Law’ (2009) 72 *Law and Contemporary Problems* 1, 8.

⁵⁵⁷ *ibid*; Holly Doremus, ‘Listing Decisions Under the Endangered Species Act: Why Better Science Isn’t Always Better Policy’ (1997) 75 *Washington University Law Quarterly* 1029, 1057.

⁵⁵⁸ Karl Popper, *Conjectures and Refutations: The Growth of Scientific Knowledge* (Routledge and Keagan Paul 1963) xii, 37.

⁵⁵⁹ Mark Ware, *Peer Review: Benefits, Perceptions and Alternatives* (Publishing Research Consortium 2008) 6.

⁵⁶⁰ *ibid* 16–17; Doremus (n 557) 1146–1148.

⁵⁶¹ Ware (n 559) 12–13.

In the United States and Canada, public scrutiny of the scientific knowledge used for decision making on endangered species is considered to be important. Public scrutiny is not a part of the normal scientific method but it is useful when the science is being used by public bodies because it enables the public to hold the government accountable.⁵⁶² Public scrutiny involves the publication of the scientific evidence and a proposal to protect a species and inviting comment in the form of written remarks or during public meetings.⁵⁶³ Doremus argues that public scrutiny ‘is the most effective weapon against careless or biased decision making’ as it allows ‘attacks not only on the reliability of the methods and the plausibility of the interpretation, but also on the motives and honesty of those who supply the data’.⁵⁶⁴

The science upon which decision makers rely can come from a number of different sources. Many of the countries considered in this thesis, such as Finland, Greenland, Norway and Sweden, publish red lists which are reports, prepared according to guidelines produced by the International Union for the Conservation of Nature, listing the endangered and threatened species within a particular country and allocating those species to a certain threat level.⁵⁶⁵ These reports provide a useful basis for the listing of species and, in Finland for example, the list of threatened species is almost entirely based on the Finnish Red List.⁵⁶⁶ Other types of science which are relied upon in the selection of species include biodiversity reports, journal articles published by biologist and ecologists, publications of government or government funded research facilities and evidence commissioned by environmental organisations or the government body itself. Regardless of the source of the information, it is important that the correct scientific method was applied and that the information can be or was subjected to evaluation through peer review and, where appropriate, public scrutiny to ensure that it is of the highest quality possible before it is used to make decisions on the protection of species.

⁵⁶² Doremus (n 557) 1148.

⁵⁶³ 12-Month Petition Finding and Proposed Rule to List the Polar Bear (*Ursus Maritimus*) as Threatened Throughout Its Range, 72 Federal Register 1,064 (9 January 2007).

⁵⁶⁴ Doremus (n 557) 1151.

⁵⁶⁵ *Norwegian Red List of Species* (n 309); *The 2015 Red List* (n 527); Boertmann and Bay (n 371); Hyvärinen and others (n 434).

⁵⁶⁶ ‘The 2010 Red List of Finnish Species’ (n 532); Nature Conservation Act (1096/1996) s 46.

The description of the scientific method given above only applies to ‘western science’ and it is arrogant (and unacceptable) to assume that the forms of knowledge collection designed in the western world are the only way of accurately measuring and assessing natural phenomenon. Traditional and indigenous cultures, such as the Sami and Inuit people of the Arctic, have their own methods of collecting knowledge and passing it on within their communities, often as part of an oral tradition, and this knowledge is frequently referred to as traditional knowledge.⁵⁶⁷ Berkes et al define traditional knowledge as ‘a cumulative body of knowledge, practice, and belief, evolving by adaptive processes and handed down through generations by cultural transmission’.⁵⁶⁸ Where that knowledge is concerned with the environment and is based on ‘insight acquired through extensive observation of an area or species’ it is known as traditional ecological knowledge.⁵⁶⁹ Although sometimes viewed suspiciously by western scientists, traditional ecological knowledge is able to play an important role in endangered species protection because it can provide knowledge of species found in remote locations and for which there would otherwise be no information available, it can force the consideration of new ways of thinking, even establishing new paradigms, about the environment and about conservation, it can often be more ‘holistic and ethical’ than the positivist approach of western science and it is usually the product of many generations of observation of the local environment.⁵⁷⁰ More importantly, for decisions regarding endangered species located in areas where indigenous people live, the use of traditional ecological knowledge, the knowledge of the local environment as understood from the perspective of the people who will be subject to the rules established to protect a species, can ensure that the listing of a species is seen as a collaborative approach between the government and local people rather than the imposition of unfair and unjust rules. The only jurisdictions explicitly to include traditional knowledge in the collection of scientific evidence for decision making on endangered species are the

⁵⁶⁷ Grant Gilchrist, Mark Mallory and Flemming Merkel, ‘Can Local Ecological Knowledge Contribute to Wildlife Management? Case Studies of Migratory Birds’ (2005) 10(1):20 *Ecology and Society* 1.

⁵⁶⁸ *ibid* 2; Fikret Berkes, Johan Colding and Carl Folke, ‘Rediscovery of Traditional Ecological Knowledge as Adaptive Management’ (2000) 10(5) *Ecological Applications* 1251, 1252.

⁵⁶⁹ Gilchrist, Mallory and Merkel (n 567) 2; Henry P Huntington, ‘Using Traditional Ecological Knowledge in Science: Methods and Applications’ (2000) 10(5) *Ecological Applications* 1270, 1270.

⁵⁷⁰ Huntington (n 569) 1270; Gilchrist, Mallory and Merkel (n 567) 1; George Nicholas, ‘It’s Taken Thousands of Years, but Western Science Is Finally Catching Up to Traditional Knowledge’ *The Conversation* (15 February 2018) <<http://theconversation.com/its-taken-thousands-of-years-but-western-science-is-finally-catching-up-to-traditional-knowledge-90291>> accessed 23 July 2019; George Nicholas, ‘An Uneasy Alliance: Indigenous Traditional Knowledge Enriches Science’ *The Conversation* (18 February 2019) <<http://theconversation.com/an-uneasy-alliance-indigenous-traditional-knowledge-enriches-science-109212>> accessed 23 July 2019.

Canadian jurisdictions. The Species at Risk Act 2002 specifically requires that decisions are taken following the consideration, by COSEWIC, of ‘scientific knowledge, community knowledge and aboriginal traditional knowledge’, the Species at Risk (NWT) Act 2009 makes similar demands for its territorial Species at Risk Committee and, when the endangered species provisions of the Nunavut Wildlife Act 2003 are brought into force, the act requires the consideration of Inuit Qaujimagatuqangit or traditional Inuit knowledge.⁵⁷¹ In Greenland, ‘user knowledge’ which will primarily come from indigenous people is used in decision making about species protection and quota setting for hunting.⁵⁷² The body which provides scientific evidence to Naalakkersuisut, the Greenland Institute of Natural Resources, also gathers traditional knowledge.⁵⁷³ One such example is a recent study about changes in polar bear ecology in eastern Greenland from a traditional knowledge perspective.⁵⁷⁴ None of the other jurisdictions studied require or seem formally to incorporate the use of traditional knowledge. There are, however, many ways in which traditional ecological knowledge could be gathered in a way which could be used by decision makers. Given the number of indigenous communities in the Arctic and the wealth of knowledge which they hold, traditional ecological knowledge should, where possible, be considered together with alongside western science in decision making regarding endangered species.

4.2.5. The Selection of Species is Inherently Political

If decisions on the protection of species should be made on the basis of science, it is arguable that decisions regarding the protection of endangered species should be made entirely by scientific experts with no political influence at all. Such a committee would be given the authority to decide which species within a particular jurisdiction require protection and then to decide what protection is required. To argue this, however, would be to miss the fact that the protection of species is an inherently political one. Species protection is political because it involves the distribution of scarce public resources, it can have an impact on citizen’s property and rights and because the decision to protect or not to protect a species and the way in which that protection should occur is one that is driven

⁵⁷¹ Species at Risk Act 2002 s 15(2); Species at Risk (NWT) Act 2009 s 17(2); Nunavut Wildlife Act 2003 s 8.

⁵⁷² Self Government Order No 3 of 14 September 2018 on Catching and Protecting Polar Bears s 5.

⁵⁷³ Kristin L Laidre, Allison D Northey and Fernando Ugarte, ‘Traditional Knowledge About Polar Bears (Ursus Maritimus) in East Greenland: Changes in the Catch and Climate Over Two Decades’ (2018) 5 *Frontiers in Marine Science*.

⁵⁷⁴ *ibid.*

by values and morals, which themselves stem from differing world views.⁵⁷⁵ Wilson argues, correctly, that ‘the notion...that species conservation can be free of politics is untenable’.⁵⁷⁶

Species protection involves the distribution of scarce public resources because it costs money and time to identify species at risk, to prepare reports to allow for decisions to be made, to conduct peer review and public consultation and to draft and implement protection plans and recovery plans.⁵⁷⁷ All of these costs must be paid for from public finances and this reduces the resources available, either for the protection of other species, or for other environmental programmes, or for entirely unrelated public programmes such as healthcare or education.⁵⁷⁸ If money is spent on protecting Arctic foxes or deciding whether or not to protect the willow ptarmigan, then that money and agency time is not available for anything else. The agencies and ministries tasked with protection of species in the Arctic countries often have insufficient funding to pay for the protection of all of the species which could be protected and so they have to make decisions about which species to select.⁵⁷⁹ The selections which they make, even if based on scientific evidence, reflect the value, culturally, aesthetically or economically which they, or the voters which they represent, place on certain species.⁵⁸⁰ As the spending of public money is a political decision, so too are any decisions which rely upon that money being spent, including the protection of endangered species.

Species protection decisions are also political because of the impact that those decisions can have on individual’s property rights and their ability to secure maximum profit from their property.⁵⁸¹ The limit on private property rights occurs because a species designation or a critical habitat designation can restrict the use of part or all of a person’s property or can prohibit certain activities from taking place.⁵⁸² If a den or nest may not be disturbed

⁵⁷⁵ Bell and others (n 54) 12–13; Jason F Shogren and others, ‘Why Economics Matters for Endangered Species Protection’ (1999) 13 *Conservation Biology* 1257, 1258–1259; Patrick Impero Wilson, ‘Deregulating Endangered Species Protection’ (2001) 14 *Society & Natural Resources* 161, 162–163, 168–169.

⁵⁷⁶ Wilson (n 575) 162.

⁵⁷⁷ Shogren and others (n 575) 1259–1260.

⁵⁷⁸ *ibid.*

⁵⁷⁹ Wilson (n 575) 163.

⁵⁸⁰ Wilson and others (n 549).

⁵⁸¹ Wilson (n 575) 162.

⁵⁸² *ibid.*

then the owner of the property on which that den or nest is located is prevented from using all of the land and may also be prevented from using the land in such a way that extracts the most profit from it if that land use could be in conflict with the species protection measures.⁵⁸³ The protection of a species may also cost a landowner money as a result of additional regulation requirements or because of the need to acquire additional consents before conducting certain activities. The impact on a citizen's property rights is often considered to be an acceptable cost of the protection of a species but it is undeniably a political decision.

The third way in which species protection is inherently political is because it is, by its very nature, an expression of values, morals and a world view. There are always competing interests when it comes to political decisions and decisions made about the protection of species are no different; 'choosing who wins and who loses is a basic question of politics'.⁵⁸⁴ Those competing interests can be between industry and environmental organisations, between hunters and environmentalists, between scientists and lobby groups, between human interests and the interests of the environment (see, for example, *Animal Alliance of Canada v Canada (Attorney General)* (appendix B.6.1 below), *Clyde River (Hamlet) v Petroleum Geo-Services Inc.* (appendix B.6.2 below), *Safari Club International v Salazar* (appendix A.6.1 below), *Alaska Oil & Gas Association v Jewell* (appendix A.6.2 below) and *Appeal Against Derogations on the Hunting Provisions Relating to Wolves* (appendix F.6.2 below)). All lawmakers make value judgments and, in a democracy, the values of those lawmakers change as governments with different priorities and different world views are elected. This is clearly demonstrated in Alaska with the Obama administration listing, albeit not always in a timely manner, a number of Arctic marine species as threatened as a result of climate change, and the Trump administration, almost immediately on taking office, refusing to list the Pacific walrus as a threatened species because the newly elected government had a different world view and different values (see 3.2 above).⁵⁸⁵ Similarly, the culling of Arctic predators such as brown bears, golden eagles

⁵⁸³ *ibid.*

⁵⁸⁴ *ibid.*

⁵⁸⁵ 12-Month Findings on Petitions to List 25 Species as Endangered or Threatened Species, 82 Federal Register 46,618 (5 October 2017); U. S. Fish and Wildlife Service (n 279); Oliver Milman, 'Walrus Face "Death Sentence" as Trump Administration Fails to List Them as Endangered' *The Guardian* (4 October 2017) <<https://www.theguardian.com/us-news/2017/oct/04/walrus-endangered-species-trump-administration>> accessed 23 July 2019.

and wolverine has recently been allowed by the Norwegian government despite Norway's reputation for environmental protection.⁵⁸⁶ While the world views and values of any particular government may not align with our own values, allowing elected representatives to make decisions on value laden matters such as species protection is important because those governments represent the majority opinion at any one time. It is also possible to hold governments to account, through the political system, by way of judicial review or through the ballot box, where the behaviour of the government is not lawful or no longer represents the will of the electorate.

4.2.6. A New Model for the Use of Science in Species Protection in the Arctic

As has been shown, there is a tension between a desire for species protection decisions to be made entirely on a scientific basis, and the acknowledgment that such decisions, involving as they do public finances, limits on property rights and values, should be made, at least in part, by elected representatives. What is needed is a balance between independent scientific information and political decision making or oversight. Such a balance would ensure that accurate and reliable scientific information was being gathered regarding endangered species, without the interference of economic or political concerns which can introduce bias and reduced objectivity. This information could then be opened up to peer review and public scrutiny to increase the reliability of the findings. The final decision, however, will usually need to lie with an elected official, such as a government minister, as the decisions being made are necessarily political and require a careful balance of the differing interests. It is also important that those reaching such decisions are publicly accountable; a scientific committee cannot usually be held accountable so it would not be appropriate for them to be the final decision maker.

The federal Canadian system, with its scientific committee providing advice to the Minister who makes the final decision on species protection, is the closest model to this which is currently found in the Arctic nations. The Canadian model also provides a voice for those with traditional ecological knowledge through its requirement that aboriginal knowledge be taken into account and its inclusion of indigenous people on the COSEWIC scientific

⁵⁸⁶ George Monbiot, 'Norway's Plan to Kill Wolves Explodes Myth of Environmental Virtue' *The Guardian* (20 November 2012)
<<https://www.theguardian.com/environment/georgemonbiot/2012/nov/20/norway-predators-wolves>>
accessed 13 May 2019.

committee. The Canadian system is not a perfect model because the COSEWIC scientific committee is insufficiently independent because of the number of government representatives which currently sit on it. An even stronger model than that found in Canada would be to have an entirely independent scientific committee, made up of ecological and biological experts, drawn primarily from academia, and representatives of communities with traditional ecological knowledge, but with no government representatives. If input is required from different levels of government then this should be done separately from the independent scientific committee perhaps in the form of another committee which could review the evidence of the scientific committee and make representations to the government. The scientific committee would provide advice to the government regarding which species should be protected and the way in which protection should take place. These recommendations should then be considered by the government and any proposals opened up to peer review (from those outside the scientific committee in order to provide additional evaluation) and public scrutiny in the form of either the opportunity to provide written comments or to attend a public meeting. Once this has occurred, it would be for the government to reach a final decision on protection of a species.

4.2.7. Implementing the New Model

Implementing these changes would be easy for some of the Arctic jurisdictions and more difficult for others. For the federal Canadian system, the only changes necessary would be to remove the government representatives from COWEWIC and appoint entirely independent scientists and representatives holding traditional ecological knowledge. As COSEWIC is supposed to be an entirely independent scientific committee, this should not be difficult to do. In Greenland, too, it would be quite easy to implement this model. Currently, Pinnortitaleriffik, Greenland's Institute of Natural Resources, provides scientific information to the Greenlandic government but there is no formal scientific committee which has the authority to make recommendations. Establishing such a committee for Greenland, with (predominantly if not entirely) Greenlandic scientists, and those with traditional ecological knowledge, to advise Naalakkersuisut would be extremely beneficial if Naalakkersuisut is going to extend the protections under the Act of Nature Protection 2003 to plants and non-mammalian animals.⁵⁸⁷ For the European countries, Norway, Sweden and Finland, the introduction of a committee to make recommendations

⁵⁸⁷ Act on Nature Protection 2003.

about the protection of species would be novel as there are currently no such systems in place. This is not to say that the systems of species protection in Norway, Sweden and Finland are not based on science but that there is insufficient split between the scientific evidence on which any species protection decisions are made, and the political decision makers. For instance, in Finland, the Finnish Red List, which, as was described above at section 4.2.4 above, is used to inform the decision to include a species on the list of threatened species under section 46 of the Nature Conservation Act is prepared by a series of expert committees but it is published by the Finnish Ministry of the Environment and Suomen Ympäristökeskus, the Finnish Environment Institute, a government agency.⁵⁸⁸ While this is not a problem for the production of the Red List as a piece of scientific evidence, it is, as has been seen, a weak system for the protection of species. A separate independent scientific committee able to make recommendations to their respective governments and including indigenous Sami people with traditional ecological knowledge, in particular over the inclusion of species on the list of most heavily protected species such as the Norwegian list of priority species or the Finnish species placed under a strict protection order.⁵⁸⁹ In Finland and Sweden, there is a need to ensure that the species listed in the Birds and Habitats and Species Directives are protected, but the protection offered can, and should, go further than this, particularly given that the list of species to be protected under the directives has become static and therefore outdated. A model such as that described above would assist with identifying other species for protection to ensure that species threatened with extinction which were not included in the directives the last time they were amended for the Nordic countries are protected.

The country where it would be most difficult to implement a model such as that described above is the United States. This is because in order to do so, a change would be required to the Endangered Species Act and the act itself is already considered to be extremely controversial. Bean described the act as ‘one of the most contentious of our federal environmental laws’.⁵⁹⁰ Partly because the impact of listing a species as threatened or endangered in the United States is so great, the act is seen as troublesome by landowners and businesses and it is likely that any attempts to amend it would either be opposed or

⁵⁸⁸ Hyvärinen and others (n 434); Nature Conservation Act (1096/1996) s 46.

⁵⁸⁹ Nature Diversity Act ss 23–24; Nature Conservation Act (1096/1996) s 47.

⁵⁹⁰ Endangered Species Act 1973; Michael J Bean, ‘The Endangered Species Act: Science, Policy, and Politics’ (2009) 1162 *Annals of the New York Academy of Sciences* 369, 369.

would be seen as an opportunity to weaken the protections already there. However, as the United States' system is already fairly strong, with a requirement to use the 'best scientific and commercial data available', an expectation of peer review and public scrutiny, and a system whereby the public and interested parties such as environmental groups can make suggestions as to which species should be considered for protection, the lack of an independent scientific committee in the United States' system of species protection is less concerning than in the other countries, although the US Fish and Wildlife Service and the National Marine Fisheries Service should consider ways in which traditional ecological knowledge could be incorporated into the scientific evidence used for decision making for species which are found on land occupied and used by indigenous people, such as in the Arctic.⁵⁹¹

4.2.8. Conclusion

Having reviewed and compared the system for the selection of species for protection in the Arctic nations, and their use of independent scientific evidence, it is clear that the strongest model (for this aspect of species protection) is currently found in the federal Canadian jurisdiction.⁵⁹² The model is not perfect because of the inclusion of a number of governmental representatives on the scientific committee but, a model with an independent scientific committee making recommendations to an elected decisions maker is one which could be replicated in most of the Arctic nations. This type of model would have considerable benefits, particularly in Greenland where there is a need to expand the scope of the protected species beyond mammals, in Norway where there are very few priority species and in Sweden where the species protection system is heavily reliant on the lists found in the European directives which are themselves increasingly outdated. The establishment of such a model is highly recommended to all of the Arctic nations covered by this thesis.

⁵⁹¹ Endangered Species Act 1973 § 1533(b)(1)(A).

⁵⁹² Species at Risk Act 2002.

4.3. Part III: Adaptability to New Threats in the Arctic

4.3.1. Introduction

The Arctic is changing. In many ways faster than any other region on earth. With these changes come new threats to Arctic biodiversity and new challenges to those seeking to conserve Arctic species for both present and future generations, and, more importantly because of the species own inherent worth. The current species protection systems in the jurisdictions considered in this study were drafted between 1973 and 2009 and, while it is not fair to label them as entirely outdated, many of them were not designed to deal with the threats now being faced in the Arctic. Some of the laws and regulations are more flexible than others and allow for the protection of species against a changing profile of threats, while others are static and difficult to change or update. In this part of the comparative analysis, the purpose is to analyse the threats with the species protection systems are designed to protect, highlight the modern threats to species in the Arctic and to conduct a comparison to see the extent to which the legal arrangements currently in place to protect endangered species are sufficiently flexible to deal with these threats, and other unforeseen future challenges. The section ends with some recommendations about changes which could be made to emulate best practice from around the Arctic and to improve the ways in which endangered species laws could protect Arctic species from the threats which they will face in the future.

4.3.2. The Structures of Endangered Species Protection

There are three main structures of endangered species protection in the Arctic, the general structure, the listing structure and the specific structure. All of the species protection systems in the Arctic fall into one or more of these categories and the type of structure of each jurisdiction's system dictates the level of protection and the threats with which that system is able to deal.

The general structure, which is found in Norway, Svalbard, Jan Mayan and Finland, provides for the protection of all species of wildlife except those which are specifically excluded. In the general structure, a standard level of protection is applied to all of the species covered by the legislation or other legal rules implementing the structure, without

any consideration of the need of individual species within the protected cohort.⁵⁹³ For example, in Norway, the Nature Diversity Act of 2009 grants a general level of protection to all wild animals except rodents, reptiles and fish and the Svalbard Environmental Protection Act 2001 protects all terrestrial and almost all marine species on and around Svalbard.⁵⁹⁴ Similarly in Finland, the Nature Conservation Act 1996 provides for the direct protection of all wild mammals and of all wild birds.⁵⁹⁵ In both of these countries, this standard level of protection is given regardless of the threat posed to any of the species to which it applies.

The second structure for endangered species protection is the listing structure which is that found in the USA, Canada, the Yukon, the Northwest Territories and Sweden.⁵⁹⁶ This structure provides for a general level of protection but only for those species which are included on a list of species which are to be protected. In the USA and at a federal level in Canada, listing is for species which are considered, on the basis of scientific evidence, to be at risk of extinction.⁵⁹⁷ The listing structure also applies in Sweden and, in theory, the government has the authority to list any wild species of plant or animal that is at risk of 'becoming extinct or being subjected to exploitation' but in practice, the list of species in the Species Protection Ordinance is almost entirely made up of species which Sweden is required to protect under the Habitats and Species Directive and the Birds Directive.⁵⁹⁸ Once a species has been listed, a number of protections then apply, with these being set out in the various species protection acts. In Sweden it is unlawful, when done intentionally, to catch or kill a listed species, to interfere with an animal, particularly during mating, breeding, wintering and migration periods, to destroy or to collect eggs and to damage or destroy reproductive or rest areas.⁵⁹⁹ For plants, the rules prohibit behaviour such as picking, uprooting or destroying listed plants.⁶⁰⁰ Similar rules apply in the USA, where a species which has been listed as endangered is protected under the provisions of section 9

⁵⁹³ Nature Diversity Act; Svalbard Environmental Protection Act 2001; Jan Mayen Nature Reserve Regulations 2010; Nature Conservation Act (1096/1996).

⁵⁹⁴ Nature Diversity Act s 15; Svalbard Environmental Protection Act 2001 ch IV.

⁵⁹⁵ Nature Conservation Act (1096/1996) s 37.

⁵⁹⁶ Endangered Species Act 1973; Species at Risk Act 2002; Yukon Wildlife Act 2002; Species Protection Ordinance (2007:845).

⁵⁹⁷ Endangered Species Act 1973; Species at Risk Act 2002.

⁵⁹⁸ Swedish Environmental Code (1998:808) ch 8, ss 1–2; Species Protection Ordinance (2007:845), Appendix 1; Habitats and Species Directive (92/43/EEC); Birds Directive (2009/147/EC).

⁵⁹⁹ Species Protection Ordinance (2007:845) s 4.

⁶⁰⁰ *ibid* 7.

of the Endangered Species Act 1973 (appendix A.4.1.4 below).⁶⁰¹ This section prevents anyone from ‘taking’ a species which is defined as to ‘harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect’ such a species.⁶⁰² Likewise, in Canada the Species at Risk Act 2002 set out the actions which become unlawful once a species has been listed (appendix B.4.1.4 below).⁶⁰³ Both countries also protect wild birds which are listed in the Migratory Birds Treaty as requiring protection.⁶⁰⁴

The third structure of endangered species protection is the specific structure. In this structure, which is found in Greenland, the endangered species protection system works by allowing the designation of particular species in the same way as the listing structure but instead of providing a general level of protection for all listed species, the legislation allows for specific rules to be drawn up for the protection of each species.⁶⁰⁵ Unlike in the USA and Canada, the selection process in Greenland for listing protected species does not rely on the need to provide scientific evidence that a species is at risk of extinction before it can be protected but there is no reason why a jurisdiction could not have a specific system with a procedure that precluded the listing of species which were not threatened. In Greenland, the Nature Protection Act 2003 authorises Naalakkersuisut to pass regulations which allow for the protection of any species and which, at the same time, set out rules to protect those species.⁶⁰⁶ This had led to individual regulations being passed for each of the mammals found in the wild in Greenland, with different protection mechanisms for each one according to their need. For instance, in the regulations on musk oxen there are provisions prohibiting the driving of musk oxen without a permit and in the polar bear regulations there are measures to protect female polar bears for interference while they are denning.⁶⁰⁷ The rules also enabled Naalakkersuisut to include a number of provisions in the Order on the Protection and Capture of Birds relating to the distance which a boat must remain from

⁶⁰¹ Endangered Species Act 1973 § 1538.

⁶⁰² *ibid* §§ 1538(a)(1)(B), 1532(19).

⁶⁰³ Species at Risk Act 2002 s 32(1).

⁶⁰⁴ Convention Between the United States and Great Britain for the Protection of Migratory Birds (Concluded at Washington, 16 August 1916); Migratory Birds Convention Act 1994; Migratory Birds Treaty Act of 1918, 16 USC.

⁶⁰⁵ Act on Nature Protection 2003 s 5; Yukon Wildlife Act 2002 ss 1, 8.

⁶⁰⁶ Act on Nature Protection 2003 5–10.

⁶⁰⁷ Self Government Order No 8 of 27 June 2013 on the Protection and Capture of Musk Oxen (Selvstyrets Bekendtgørelse No 8 af 27 Juni 2013 om Beskyttelse og Fangst af Moskusokser) s 15; Self Government Order No 3 of 14 September 2018 on Catching and Protecting Polar Bears s 3.

a bird colony in order to reduce any disturbance caused.⁶⁰⁸ Such provisions are an excellent way of protecting birds which nest in colonies but would be less appropriate or necessary for the protection of other species.

Although the endangered species protection systems of the Arctic jurisdictions fit fairly neatly within the three categories identified, there are some exceptions. Sometimes these come in the form of limited selection procedures or increased levels of protection for a small number of species in jurisdictions with an otherwise general structure or a general protection limited to certain categories of species within a listing structure. In Finland, for example, species protection can be extended beyond mammals and wild birds to other animal species and to plant species where the existence of the animals or plants in question is threatened or where there is some other reason for granting protection.⁶⁰⁹ This provides for a slightly more tailored approach as the selection process requires there to be some level of threat posed to the species.⁶¹⁰ However, the protections which can be applied are set by the Nature Conservation Act rather than being written specifically for the species. In Sweden, although the species protection rules provide for a listing structure as discussed above, the hunting rules apply a general protection structure to mammals and birds.⁶¹¹ The Hunting Act 1987 allows for the killing, capturing or pursuing of wildlife where lawful authority has been granted, but where no authority has been granted mammals and birds, as well as their eggs and nests, are protected.⁶¹² Other species of animal and species of plant are not included in this protection and it cannot be extended to them.⁶¹³ Similarly, in the Yukon, which has a listing protection structure for ‘specially protected wildlife’ designated by regulation, there is an example of a general protection exception.⁶¹⁴ This protection takes the form of a prohibition against harassing all forms of wild animal, regardless of their protected status.⁶¹⁵

⁶⁰⁸ Self Government Order No 1 of 5 January 2017 on the Protection and Capture of Birds s 12.

⁶⁰⁹ Nature Conservation Act (1096/1996) ss 37, 42; Nature Conservation Decree (160/1997) ss 18, 20, Appendix 2(a), (b), 3(a), (c).

⁶¹⁰ Nature Conservation Act (1096/1996) ss 37, 42; Nature Conservation Decree (160/1997) ss 18, 20, Appendix 2(a), (b), 3(a), (c).

⁶¹¹ Species Protection Ordinance (2007:845); Hunting Act (1987:259) ss 2, 3, 5.

⁶¹² Hunting Act (1987:259) ss 3, 5.

⁶¹³ *ibid.*

⁶¹⁴ Yukon Wildlife Act 2002 s 92.

⁶¹⁵ *ibid.*

Exceptions can also be found in the Norwegian system. While the general structure applies, there are a small number of species to which a higher level of protection is granted on the basis of a specific structure.⁶¹⁶ These species, only thirteen in total at the moment, and only four Arctic species, are given additional protections on the basis of the threat to their population status.⁶¹⁷ Once listed individual regulations are drawn up to protect the species from the specific threats which it is facing.⁶¹⁸ Norway also has an example of a listing structure in the protection of certain plant and invertebrate species. Some plants and invertebrates, around 57 species, are protected through inclusion on the list annexed to the Regulations on the Conservation of Endangered Species 2001.⁶¹⁹ Those listed are protected through a prohibition on damaging, destroying, collecting or harming the species.⁶²⁰

These exceptions mean that the jurisdictions which they affect could be described as having mixed structures, despite them earlier having been included in one or other of the structure categories. In some ways it could be argued that the structures in Norway and Sweden should be classified in the same manner as both have a general structure for either mammals and birds or for all animals and a listing structure to protect some species. Despite this, however, the two systems have been correctly analysed and categorised as they have been above because of the structure which is the predominant one and the scale of the secondary structure. In Norway, the specific and listing structures only applies to a small number of species with the main method of protection being the general structure found in section 15 of the Nature Diversity Act 2009 whereas in Sweden the primary method of protection is through the listing structure under the Species Protection Ordinance and the general protection found in the Hunting Act 1987 is a secondary method of species protection, applying only to mammals and birds, and only where and when hunting is not permitted. It is, however, useful to be able to categorise these secondary systems as well as the primary systems and to identify that each of the exceptions fits within one of the three categories identified above.

⁶¹⁶ Nature Diversity Act ss 23, 24.

⁶¹⁷ *ibid.*

⁶¹⁸ *ibid.*

⁶¹⁹ Regulations of 21 December 2001 No 1525 on the Conservation of Endangered Species (Forskrift om Fredning av Truede Arter).

⁶²⁰ *ibid* 2.

4.3.3. Protection of Species Under the Current Structures

Across the Arctic, the species protection rules seek to manage and conserve species individually, and biodiversity more generally. The aim is often stated at the start of the respective acts, such as the Finnish Nature Conservation Act 1996 which says that one of the purposes of the law is to ‘maintain biodiversity’ which is done through ‘the protection and management of nature and landscapes’.⁶²¹ Similarly, the opening lines of the Greenlandic Nature Protection Act 2003 talk about protecting ‘biodiversity, including genes, species, habitats, and ecosystems’ and the American Endangered Species Act 1973 indicates that the intention of the act is ‘to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species’.⁶²² This thesis has shown how the Arctic countries use their laws to protect their endangered and threatened species and to conserve their biodiversity. However, what becomes obvious when the species protection systems are compared is that, in almost all, if not all of the systems found in the Arctic, the key threats which are safeguarded against are those which are caused by direct human intervention with a particular species. For example, as was described above at 4.3.2, in Sweden, it is unlawful to capture a protected species, to kill one, or to interfere with one, particularly during vulnerable times during its life cycle.⁶²³ Likewise, in Norway species are protected from harvesting without lawful authority and in Canada the law prevents ‘a person from kill[ing], harm[ing], harass[ing], captur[ing] or tak[ing] an individual of a wildlife species that is listed’ under the Species at Risk Act 2002.⁶²⁴ These threats, which most of the species conservation acts are designed to protect against, are entirely anthropogenic threats.⁶²⁵ These threats posed to species by humans include killing, injuring or capturing animals, disturbing, chasing or harassing species, destroying nests, picking plants and collecting eggs. In the species protection systems included in this study, these are the main threats which are criminalised. There are, in some systems, such as the USA and Canada, which to some extent protect habitats and ecosystems that are relied upon by listed species in order to provide a broader level of protection but this system is not implemented across the Arctic and, even in countries where it is, critical habitats are frequently not designated or lack any real means by which species

⁶²¹ Nature Conservation Act (1096/1996) ss 1–2.

⁶²² Nature Protection Act 1970 s 1(2); Endangered Species Act 1973 § 1531(b).

⁶²³ Species Protection Ordinance (2007:845) s 4.

⁶²⁴ Nature Diversity Act; Species at Risk Act 2002 s 32(1).

⁶²⁵ Mooers and others (n 487) 572.

can be protected (see, for example, Canada's dilatory actions in relation to designating critical habitats (appendix B.4.1.10 and appendix B.4.1.12 below).⁶²⁶ The problem with an approach that deals mainly with direct interactions between individual plants or animals and humans is that it no longer reflects the reality of the threats faced, particularly in the Arctic. While hunting and other forms of taking individual species can, and in the past, has decimated populations of species such as whales, Arctic fox and many other Arctic species, the modern threats to Arctic biodiversity go beyond the one-to-one interactions envisaged in most of the acts and regulations.

4.3.4. Current and Future Threats to the Arctic

There are a wide number of current threats to the Arctic and to its biodiversity, most of which are anthropogenic in nature but are fundamentally different to the threats outlined in the paragraph above, and they are likely to become worse in the coming years and decades. These modern threats to Arctic species rarely originate in the communities and villages in the Arctic and are not perpetrated by local people or even visiting hunters. Instead, these threats, which include climate change, plastics, pollution and increased access to the Arctic for tourism and industrial exploitation, emanate from across the globe.

4.3.4.1. Climate Change

Climate change is almost certainly the biggest threat which Arctic species will face in the coming decades (see 1.8 above) for a discussion about the science behind climate change in the Arctic). The impact of an Arctic which is warming at twice the rate of the rest of the world could, and probably will, be devastating.⁶²⁷ There are a number of different ways in which species will be threatened by climate change including habitat loss, impact on cold adapted species and the northward shift of habitats and species which will compete for food. Of these, for the marine mammals which rely on sea ice, the habitat degradation is likely to be the main threat that they will face. Species such as polar bears (see appendix A.6.2 below), ice seals and walrus rely on sea ice as a platform from which to hunt, feed, rest, mate and travel. Without sea ice these species will be forced to swim much larger distances without being able to rest, may be unable to acquire sufficient food through

⁶²⁶ Sarah C Bird and Karen E Hodges, 'Critical Habitat Designation for Canadian Listed Species: Slow, Biased, and Incomplete' (2017) 71 *Environmental Science & Policy* 1.

⁶²⁷ *Climate Change Update 2019: An Update to Key Findings of Snow, Water, Ice and Permafrost in the Arctic (SWIPA) 2017* (n 73).

hunting and may be forced into closer contact with humans and other species though being forced onto land. As temperatures rise, sea ice, especially the thick multi-year pack ice on which these species depend, will continue to melt and it is predicted that there will be no summer sea ice in the Arctic Ocean, and therefore no multi-year pack ice, as soon as the 2030s.⁶²⁸ This sea ice habitat loss poses an enormous threat to the survival of a number of Arctic species.

Another threat posed by climate change is the increases in temperatures for cold adapted species. Only the very hardiest of species can survive in the frozen temperatures of the Arctic, and the plants and animals which do survive are well adapted to the cold. While these adaptations enable them to endure the cold winters, they can make species less able to handle warmer weather. As the cold-adapted species suffer from temperature rises, those species which were unable to survive in the very coldest regions will increasingly be driven north, partly to escape warmer temperatures further south and partly because they will no longer be forced out by the cold and the ice. These more southerly species, such as the red fox, are already being spotted in areas where Arctic foxes are found and are competing with the smaller Arctic foxes for food. Plants too, are beginning to move further and further north. One of the definitions of the Arctic is the treeline, with the traditional Arctic landscapes consisting of tundra, rock and wetlands. As the Arctic warms, the trees are moving north, altering the habitats which have existed in the Arctic, causing the tundra and wetlands to shrink in size and overwhelming the much smaller Arctic plants. These invasive species of both plants and animals can bring with them new infectious diseases to which Arctic species have not developed immunity.

This thesis concentrates on measures which can be taken in relation to species and habitat protection. The key way in which harm to species as a result of climate change can be limited is to keep temperature rises under 1.5°C above pre-industrial levels.⁶²⁹ Doing this requires global action to reduce greenhouse gas emissions and is not action which can be taken specifically in relation to the Arctic and is unlikely to be achieved merely through laws on species protection. Making recommendations for reducing greenhouse gas emissions is beyond the scope of this thesis and so the suggestions made below in relation

⁶²⁸ *Snow, Water, Ice and Permafrost in the Arctic (SWIPA)* (n 73) 109.

⁶²⁹ Paris Agreement, United Nations Framework Convention on Climate Change (agreed at Paris on 12 December 2015, signed at New York City 22 April 2016, entered into force 4 November 2016).

to climate change concentrate on measures which can be taken within the Arctic and which relate more directly to direct species protection. It should be noted, however, that these will not be sufficient on their own.

4.3.4.2. Plastics

In recent years, the issue of plastic pollution, particularly plastic pollution in the oceans has become a growing public concern.⁶³⁰ About 359 million tonnes of plastic are produced each year for use in every conceivable domestic, industrial and service setting.⁶³¹ Much of this plastic, once used or broken, cannot be recycled so it ends up in landfill or being dumped in the ocean, where it makes up about 73% of ocean debris.⁶³² Plastic does not biodegrade but it does break up into increasingly small pieces which, once they are smaller than 5mm in size, are known as microplastics.⁶³³ Microplastics also enter water sources directly from powders, pellets and other fragments as well as from toiletries and the fibres released when synthetic clothes are washed.⁶³⁴

Plastics in the Arctic Ocean come primarily from the fishing industry, flow directly into the ocean from one of the rivers such as the Lena River in Siberia and the Mackenzie River in Canada, or are transported there from other oceans by wind and ocean currents.⁶³⁵ Models have suggested that the movement of the oceans could cause the Arctic to become a place where plastic dumped into other parts of the sea accumulates.⁶³⁶ Once in the Arctic, plastic, and particularly microplastics, can become frozen into the sea ice as the forms from the surface where the plastic floats.⁶³⁷ As the sea ice moves, the plastic then becomes distributed across the Arctic; when it melts, the historic legacy of accumulated plastic is released into the water.⁶³⁸

⁶³⁰ Amy L Lusher and others, 'Microplastics in Arctic Polar Waters: The First Reported Values of Particles in Surface and Sub-Surface Samples' (2015) 5 *Scientific Reports* 14947; BBC One, 'Our Blue Planet', *Blue Planet II* (10 December 2017).

⁶³¹ *Plastics -the Facts 2018* (Plastics Europe 2018).

⁶³² Ilka Peeken and others, 'Arctic Sea Ice Is an Important Temporal Sink and Means of Transport for Microplastic' (2018) 9 *Nature Communications* 1505, 2.

⁶³³ Lusher and others (n 630) 1; Peeken and others (n 632) 2.

⁶³⁴ Lusher and others (n 630) 1.

⁶³⁵ Peeken and others (n 632) 8; Lusher and others (n 630) 2.

⁶³⁶ Lusher and others (n 630) 1–2.

⁶³⁷ Peeken and others (n 632) 2.

⁶³⁸ *ibid*; Rachel W Obbard and others, 'Global Warming Releases Microplastic Legacy Frozen in Arctic Sea Ice' (2014) 2 *Earth's Future* 315.

Plastics cause a hazard to Arctic species through consumption, bioaccumulation and entanglement. Many species cannot tell the difference between food and plastic so end up ingesting pieces of plastic which then remain in their stomachs.⁶³⁹ This is particularly the case for species which feed on the surface of the water such as seabirds.⁶⁴⁰ Studies have found plastic in the stomachs of Brünnich's Guillemots, northern fulmars and other bird species in Arctic Canada.⁶⁴¹ Plastic in the stomach of birds and other species causes reduced appetite, poor growth, impaired 'dietary efficiency', kidney failure and reduced calcium levels which can eventually lead to death, while the impact of microplastics on species has yet to be fully investigated but it is thought that it is likely to include poisoning, problems feeding, energy reduction, injury and death.⁶⁴² In northern fulmars, chemicals from plastics ingested by female birds have been found in their eggs, having leached out of the plastic as the eggs are developing.⁶⁴³ For species which are higher up the food web, the magnification of any plastic pollution can cause problems as small amounts of plastic ingested by their prey can leave larger amounts in the bodies of the predators.⁶⁴⁴ Even where plastic is too big to be swallowed by a species, it can be dangerous. Larger pieces of plastic, in particular abandoned fishing nets and ropes can injure or kill species by entangling them.⁶⁴⁵ Species such as caribou, seals, polar bears and birds can end up being injured, strangled or drowned or can starve to death by being unable to escape being ensnared by a net or rope.⁶⁴⁶

⁶³⁹ Jennifer F Provencher and others, 'Ingested Plastic in a Diving Seabird, the Thick-Billed Murre (*Uria lomvia*), in the Eastern Canadian Arctic' (2010) 60 *Marine Pollution Bulletin* 1406, 1406, 1409.

⁶⁴⁰ *ibid* 1406.

⁶⁴¹ Provencher and others (n 639); Jennifer F Provencher, Anthony J Gaston and Mark L Mallory, 'Evidence for Increased Ingestion of Plastics by Northern Fulmars (*Fulmarus glacialis*) in the Canadian Arctic' (2009) 58 *Marine Pollution Bulletin* 1092; Florence E Poon and others, 'Levels of Ingested Debris Vary Across Species in Canadian Arctic Seabirds' (2017) 116 *Marine Pollution Bulletin* 517.

⁶⁴² Provencher and others (n 639) 1406; Lusher and others (n 630) 2; Jennifer L Lavers, Ian Hutton and Alexander L Bond, 'Clinical Pathology of Plastic Ingestion in Marine Birds and Relationships with Blood Chemistry' [2019] *Environmental Science & Technology* <<https://doi.org/10.1021/acs.est.9b02098>> accessed 5 August 2019.

⁶⁴³ 'Plastic Chemicals Discovered Inside Bird Eggs from Remote Arctic' (*The Independent*, 17 February 2019) <<https://www.independent.co.uk/environment/plastic-bird-eggs-pollution-arctic-ocean-chemicals-phthalates-research-a8783061.html>> accessed 10 July 2019; Jennifer Provencher, 'Seabirds and Plastics Pollution: Birds as Monitoring Tools and Vectors' (American Association for the Advancement of Science, Washington DC, USA, 15 February 2019).

⁶⁴⁴ Lusher and others (n 630) 5.

⁶⁴⁵ Melanie Bergmann and others, 'Citizen Scientists Reveal: Marine Litter Pollutes Arctic Beaches and Affects Wild Life' (2017) 125 *Marine Pollution Bulletin* 535, 358.

⁶⁴⁶ *ibid*.

4.3.4.3. Pollution

Plastics are not the only form of pollution found in the Arctic. A large number of hazardous chemicals end up in the ocean as a result of dumping at sea or in rivers or due to leaching into water sources and along coastlines. Although there is fairly limited direct input of chemical pollution into the Arctic Ocean, it arrives in the north by means of atmospheric or ocean movements, or through ingestion by species which then migrate to the Arctic.⁶⁴⁷ The majority of the chemical pollutants in the Arctic are persistent organic pollutants which are primarily used as pesticides or as industrial compounds, newer chemicals that do not fit the definition of persistent organic pollutants or heavy metals such as mercury.⁶⁴⁸ There is also a not-insignificant risk of radiation pollution in the Arctic Ocean, a legacy from nuclear activity in the Arctic regions of the Soviet Union.⁶⁴⁹ Species in the Arctic can become exposed to these chemicals in the water or through eating other contaminated species.⁶⁵⁰ The chemicals frequently end up being stored in the tissue of the animal and can be passed on to eggs or young as they develop.⁶⁵¹

Pollutants can cause a huge amount of damage to Arctic flora and fauna. Recent research published by the Arctic Monitoring and Assessment Programme has shown that chemical pollution in the Arctic is linked to genetic changes, to immunity deficiencies, alterations in hormone and vitamin levels, reduced bone density, neurological impacts affecting behaviour and reproductive stresses for species including polar bears, whales, seals and seabirds.⁶⁵² Even small amounts of pollutants can harm a species, either because of the

⁶⁴⁷ *AMAP Assessment 2015: Temporal Trends in Persistent Organic Pollutants in the Arctic* (Arctic Monitoring and Assessment Programme 2016).

⁶⁴⁸ *ibid* 2015; *AMAP Assessment 2011: Mercury in the Arctic* (Arctic Monitoring and Assessment Programme 2011); *AMAP Assessment 2016: Chemicals of Emerging Arctic Concern* (Arctic Monitoring and Assessment Programme 2016).

⁶⁴⁹ Sarah Mackie, 'Environmental Security in the Barents Region' in Kamrul Hossain and Dorothee Cambou (eds), *Society, Environment and Human Security in the Arctic Barents Region* (Routledge 2018).

⁶⁵⁰ Karen L Foster and others, 'PCB and Organochlorine Pesticides in Northern Fulmars (*Fulmarus Glacialis*) from a High Arctic Colony: Chemical Exposure, Fate, and Transfer to Predators' (2011) 30 *Environmental Toxicology and Chemistry* 2055, 2055–2056.

⁶⁵¹ Mark L Mallory, Birgit M Braune and Mark RL Forbes, 'Contaminant Concentrations in Breeding and Non-Breeding Northern Fulmars (*Fulmarus Glacialis*) from the Canadian High Arctic' (2006) 64 *Chemosphere* 1541; Mark L Mallory and Birgit M Braune, 'Do Concentrations in Eggs and Liver Tissue Tell the Same Story of Temporal Trends of Mercury in High Arctic Seabirds?' (2018) 68 *Journal of Environmental Sciences* 65; Zhe Lu and others, 'Occurrence of Substituted Diphenylamine Antioxidants and Benzotriazole UV Stabilizers in Arctic Seabirds and Seals' (2019) 663 *Science of The Total Environment* 950.

⁶⁵² *AMAP Assessment 2018: Biological Effects of Contaminants on Arctic Wildlife and Fish. Summary for Policy-Makers* (Arctic Monitoring and Assessment Programme 2019).

toxicity of the chemical at any level or because of the impact of bioaccumulation for predators ingesting multiple small amounts from eating contaminated prey.⁶⁵³ This bioaccumulation effect can also impact humans who eat contaminated wildlife, in particular in the Arctic, indigenous people who are reliant on hunting and fishing species from their local area.⁶⁵⁴

4.3.4.4. Increased Access to the Arctic by Humans

The melting of the sea ice caused by climate change is beginning to open up the Arctic to increased access by humans. When the Arctic Ocean was covered with multi-year pack ice all year it was almost impossible to cross the Arctic by sea and it was extremely difficult to exploit natural resources such as oil and gas. However, as the sea ice melts, it is becoming much easier, cheaper and safer to access the Arctic. At the same time, the Arctic is receiving more and more attention, and the number of global tourists is expanding, leading to larger numbers of people seeking out an Arctic experience.⁶⁵⁵ Melanie Bergmann explained that tourists are drawn to the Arctic in search of ‘one of the last great wildernesses characterised by a pristine white environment. They want to experience connectedness with unspoiled nature’.⁶⁵⁶ Tourism has been popular for at least one hundred years in the northern parts of Norway, Sweden and Finland where tourist boards are now pushing midnight sun adventures, northern lights and ever more comfortable accommodation.⁶⁵⁷ These regions, however, have always been fairly easily accessible due to roads, railways, planes and the Hurtigruten coastal cruise ship.⁶⁵⁸ In more remote parts of the Arctic, however, the tourist numbers are unprecedented and set to rise further, many coming on cruise ships which are sailing to the Arctic in ever greater numbers.⁶⁵⁹ Tourists are also venturing to more remote places such as Greenland, Svalbard and Franz Joseph Land. Cruise ships bring financial benefits to communities but they also cause harm to the environment.⁶⁶⁰ The United Kingdom Parliament’s Environmental Audit Select Committee found that ‘there is a risk that the thousands of tourists who travel to see a

⁶⁵³ *ibid* 1, 3.

⁶⁵⁴ *ibid* 1.

⁶⁵⁵ Dieter K Müller, ‘Issues in Arctic Tourism’ in Birgitta Evengård, Joan Nymand Larsen and Øyvind Paasche (eds), *The New Arctic* (Springer International Publishing 2015) 147, 149.

⁶⁵⁶ Bergmann and others (n 645) 535.

⁶⁵⁷ Müller (n 655) 151.

⁶⁵⁸ *ibid* 149.

⁶⁵⁹ Ben Webster, ‘Fears for Arctic Life as Cruise Ships Bring in Tourist Hordes’ *The Times* (1 December 2018).

⁶⁶⁰ *ibid*.

pristine, remote and unspoilt Arctic landscape are contributing to degradation of the very environment they came to see, and increased tourism can disrupt traditional ways of life'.⁶⁶¹ Arctic communities have complained that cruise ships harm wildlife through the emission of sewage and heavy fuel oil into the Arctic Ocean, by striking or interfering with whales and seabirds and through increasing the risk of interactions with polar bears and other species.⁶⁶²

It is not just cruise ships which are finding it easier to access the Arctic. Commercial shipping is also benefitting from reduced ice cover in the Arctic Ocean.⁶⁶³ Until recently, the northwest passage connecting the Atlantic Ocean with the Pacific Ocean via the Arctic was barely ever passable, even by icebreakers. However, in recent years, the reduction in summer sea ice has led to the northwest passage opening up and it is expected that the route will be used with increasing frequency as the summer sea ice recedes.⁶⁶⁴ A similar position exists in relation to the Northern Sea Route which connects the Pacific Ocean to Europe via the Russian Arctic.⁶⁶⁵ This route reduced shipping times between Asia and Europe by two weeks and the Chinese government has already announced plans to invest in what it calls its Polar Silk Road to improve connectivity with the west through the Arctic.⁶⁶⁶ Commercial shipping causes threats to Arctic wildlife through depositing human waste, food waste and waste water into the ocean, through heavy fuel oil spills or emission and through direct harm to species such as marine mammals and seabirds.

Finally, and briefly, the opening up of the Arctic Ocean as a result of climate change will make it easier, safer and cheaper to exploit the natural resources in the Arctic Ocean. Open water rather than pack ice makes it feasible to search for oil and gas. In the United States, Shell was allowed to conduct oil exploration in the Arctic Ocean in 2015 although

⁶⁶¹ 'The Changing Arctic' (United Kingdom Parliamentary Select Committee on Environmental Audit 2018) para 140.

⁶⁶² Webster (n 659).

⁶⁶³ 'The Changing Arctic' (n 661) paras 127–129.

⁶⁶⁴ 'Warming "Opens Northwest Passage"' *BBC News* (14 September 2007)

<<http://news.bbc.co.uk/1/hi/world/americas/6995999.stm>> accessed 22 July 2019; 'The Changing Arctic' (n 661) paras 127–129.

⁶⁶⁵ 'The Changing Arctic' (n 661) paras 127–129.

⁶⁶⁶ *ibid.*

insufficient oil was found to make the exploration worthwhile to the company.⁶⁶⁷ For a while oil and gas exploration in US Arctic waters was stopped but President Trump has already made one (albeit unsuccessful) attempt to re-establish offshore drilling in the Alaskan Arctic.⁶⁶⁸ Oil and gas exploration threatens Arctic wildlife as a result of increased shipping and other traffic, with resultant fuel oil spills, sewage dumping and underwater noise which can disturb whales, through the risk of a major oil spill causing harm right through the food web, and, possibly the greatest threat, through contributing to climate change by encouraging the burning of fossil fuels.⁶⁶⁹

4.3.5. Adaptation of the Structures to Current and Future Threats

Comparisons of the structures of endangered species protection laws identified three different structures, the general structure, the specific structure and the listing structure, with examples of laws from the Arctic nations in each category (see 4.3.2 above). Despite the different structures, however, the endangered species protection laws within the Arctic broadly deal with the same threats to species, mostly direct interaction between humans and species. As has been shown, however, these threats, from hunters and from people who live or visit the Arctic are unlikely to be the main threats to Arctic biodiversity in the future. The threats identified include climate change, plastic pollution, other types of chemical pollution and increased access to the Arctic by humans for tourism, shipping and natural resource extraction (see 4.3.3 above). Each of the structures of endangered species protection has a different level of ability to adapt to the changing threat profile within the Arctic and these differences will dictate how well the systems will be able to protect species in the coming years and decades. Where the systems are unable to adapt sufficiently, changes will need to be made to ensure that biodiversity in the Arctic is maintained.

The general structure provides a system whereby all species are given a low level of protection without the need for inclusion on a list and without any requirement that there

⁶⁶⁷ Terry Macalister, 'Shell Abandons Alaska Arctic Drilling' *The Guardian* (28 September 2015) <<https://www.theguardian.com/business/2015/sep/28/shell-ceases-alaska-arctic-drilling-exploratory-well-oil-gas-disappoints>> accessed 22 July 2019.

⁶⁶⁸ Coral Davenport, 'Trump's Order to Open Arctic Waters to Oil Drilling Was Unlawful, Federal Judge Finds' *The New York Times* (30 March 2019) <<https://www.nytimes.com/2019/03/30/climate/trump-oil-drilling-arctic.html>> accessed 22 July 2019.

⁶⁶⁹ 'How Would Offshore Oil and Gas Drilling in the Arctic Impact Wildlife?' (*World Wildlife Fund*) <<https://www.worldwildlife.org/stories/how-would-offshore-oil-and-gas-drilling-in-the-arctic-impact-wildlife>> accessed 22 July 2019.

be scientific evidence that a species is threatened. In this way, the general structure provides for a wide range of species without individual species needing to be identified as being at risk. This is beneficial because the selection of species and the detailed scientific analysis which is required to list each species can be extremely time and resource intensive and will often lead, as is regularly seen in the USA, to multiple legal challenges causing further cost and delay (see appendix A.6 below). The general structure also avoids any problem of bias against particular types of species. It is well documented, for example, that in Canada, which has a listing structure, there is a noticeable bias against species which are found in the northern regions, particularly in the Arctic, where there are complex jurisdictional issues with which to contend, including the shared responsibility between the federal government and the wildlife management boards (see appendix B.4.1.3 below).⁶⁷⁰ Likewise, in Greenland, which has a specific structure, the species currently protected are all mammals, mostly iconic mammals, which have the benefit of having a higher public profile than species such as insects or plants. By protecting all species, regardless of their threat status, a general structure ensures that all Arctic species are protected. This can make the structure flexible to counter future threats because there is no time delay on protecting species caused by the need to gather evidence of a threat and there is no need for a population of a species to be depleted before the species is given protection.

However, a general structure may not be able to provide the specific level of protection needed to deal with the threats which the Arctic is currently facing and will face in the future. The problem is that the level of protection offered by the general structure is usually fairly low. This is for the obvious reason that if the specified protection applies to all species then it is unlikely that a high level of protection will be chosen because it would be too burdensome. General structures typically provide a lower level of species protection than the other structures. In addition to the low level of protection, in a general structure the protection does not take into account the threats to any particular species and protection measures cannot be designed around preventing any specific threats to the species. This means that a general structure is unlikely to provide the specialist measures needed to meet the future threats in the Arctic.

⁶⁷⁰ Mooers and others (n 487) 3–4.

Of course, it could be possible for a general structure to provide sufficient protection for Arctic species if the general level of protection was high enough. In the case of the future threats which have been identified, most of them are general threats which will affect Arctic species as a whole. It may therefore be possible for countries with a general structure to find solutions to the future threats which could be incorporated into the species protection system for all species, although this will work better in countries which are predominately Arctic, and all or mostly 'northern', such as the European nations. For other jurisdictions separate provisions may need to be made for Arctic species. An example of the measures which could be taken include a prohibition on the use of plastics in shipping, fishing and other marine industries in the Arctic Ocean or a permitting scheme where a substantial deposit is repaid to industrial ships if they return from the Arctic Ocean with the same weight of nets, buoys and other plastics that was on board when they left port. Any money from the deposit not repaid could be used to pay a small reward for the collection of plastic from Arctic beaches by local people, tourists or scientists. Such policies would not impact on the survival of local people but would reduce the amount of plastic in the ocean and would apply generally to all species. Similarly, some general policies could help to stem climate change in the Arctic, including policies which would reduce the amount of black carbon emissions within the Arctic, as these have a local effect and dramatically increase the speed at which ice on which black carbon settles melts.⁶⁷¹ Such policies could include prohibiting gas flaring except in emergency situations, installing renewable technology in Arctic communities and reducing the reliance of Arctic communities on carbon emitting fuels such as diesel for four-wheelers and open fires in homes.⁶⁷² In relation to plastics and chemical pollution in the Arctic, countries should identify the sources of direct emissions into the Arctic Ocean and take steps to eliminate these such as introducing effective waste disposal for coastal communities and prohibiting discharge of chemicals into rivers which flow into the Arctic Ocean. In order to limit the environmental impact of shipping in the Arctic codes of practice may be needed. The Polar Code already provides a level of

⁶⁷¹ *AMAP Assessment 2015: Black Carbon and Ozone as Arctic Climate Forcers* (Arctic Monitoring and Assessment Programme 2015); Arctic Council, 'Recommendations to Reduce Black Carbon and Methane Emissions to Slow Arctic Climate Change' (Arctic Council 2013) <<https://oaarchive.arctic-council.org/handle/11374/80>> accessed 9 March 2017; Maria Sand and others, 'Arctic Surface Temperature Change to Emissions of Black Carbon Within Arctic or Mid Latitudes' (2013) 118(14) *Journal of Geophysical Research: Atmospheres* 7788; A Stohl and others, 'Black Carbon in the Arctic: The Underestimated Role of Gas Flaring and Residential Combustion Emissions' (2013) 13(17) *Atmospheric Chemistry and Physics* 8833; Mackie (n 649) 40–41.

⁶⁷² *AMAP Assessment 2015: Black Carbon and Ozone as Arctic Climate Forcers* (n 671); Arctic Council (n 671); Sand and others (n 671); Stohl and others (n 671); Mackie (n 649) 40–41.

protection but further provisions may be needed on a domestic or international level as access to the Arctic becomes more common.⁶⁷³ Introducing a consultation requirement as was recommended at 4.1.3.1.2 above would also be beneficial because this would ensure that species protection was a consideration of all government decisions which could affect Arctic species. These measures should, however, be in addition to national policies to combat climate change, reduce plastics dumped in oceans and stop the pollution of water by chemicals. Arctic based policies are important but they will not be sufficient on their own.

The second structure is the listing structure where a standard level of protection is applied to all species which are included on a list of protected species. Usually species are included on this list because of their threatened status. By protecting only threatened or endangered species, rather than all species, the listing structure focuses public resources for protection of species, both in terms of agency time and in terms of direct investment, on those species which are most in need of protection, rather than on species which would survive without any form of protection or intervention. This particularly makes sense when resources are scarce or are limited. However, while resources may not be used protecting species that do not need to be protected, it costs a considerable amount of time and money to prepare the evidence required to list a species under a listing structure and this limits the number of species which can be listed. In some systems, the listing of species is limited, not by money but because there is no method of updating the list. Whether lists are limited by finances or by the lack of any system for reviewing them, the limitation could make it difficult for a system based on a listing structure to adapt to the threats posed to the Arctic as it will prevent the system being sufficiently flexible to add the species which will need to be protected in the future. There are two main reasons why additional Arctic species will need to be added to the protection lists in the future. The first is that the number of species which will become threatened in the Arctic is likely to rise as populations which were previously stable (such as polar bears and ice seals) become threatened because of changing conditions in the Arctic. The second reason is that as the climate warms species will move further north which means that species which were previously not Arctic species will be found north of the Arctic Circle. Some of these may already be listed as endangered but the populations of other species may become less stable as they are forced northwards. As well

⁶⁷³ International Code for Ships Operating in Polar Waters (Polar Code) 2017.

as the incoming species, changes in the species profile of the Arctic will result in some Arctic species having to vie for food and space with new species, thereby causing them to become threatened when they were not previously. Where it is not possible to amend the list of endangered and threatened species, or money and time limit the number of new species which can be entered onto a list, it will prove difficult for those countries with listing structures to keep up with the protection needs of their Arctic species. Jurisdictions where this is the case should look to amend their laws to allow for the species lists to be updated and should implement regular reviews of Arctic species to ensure that the lists reflect the threats in the Arctic (see also 4.2.2 above).

Where it is possible to amend the list of endangered or threatened species, one way in which the Arctic jurisdictions can prepare to deal with the future environmental threats to the Arctic is to list Arctic species as endangered or threatened on the basis of the predicted threat to the Arctic. Rather than waiting for climate change to lead to the destruction of the Arctic habitats on which species rely before taking action, jurisdictions can be proactive about protecting species which are likely to be harmed by melting ice and rising temperatures. The United States has already taken the initiative to begin to list Arctic species threatened by climate change, including the polar bear (see appendix A.6.1 below), bearded seal and ringed seal (although recent policy changes have seen the Pacific walrus rejected as a candidate species for protection (see 3.2 above)).⁶⁷⁴ These listings were made on the basis of climate change predictions rather than because the populations are currently depleted but such proactivity enables protections to be put in place before further harm is incurred. Other jurisdictions should follow the example of the United States in listing species where it is foreseeable that climate change is likely to destroy a species' habitat and deplete its population. In the United States, the DC Circuit Court of Appeals has held that predictions of 45 years are sufficiently foreseeable to allow for a species to be listed as threatened (see appendix A.6.1 below) and this seems an appropriate benchmark for other jurisdictions to follow. In addition to this, the United States should continue to list ice dependent Arctic species as threatened, rather than claiming that species such as the Pacific walrus has 'shown an ability to adapt to sea ice loss that was not foreseen' and thereby

⁶⁷⁴ 12-Month Findings on Petitions to List 25 Species as Endangered or Threatened Species, 82 Federal Register 46,618 (5 October 2017); U. S. Fish and Wildlife Service (n 279).

choosing not to protect it.⁶⁷⁵ Introducing a programme to review the status of Arctic species with a view to listing them where possible, and doing so while there may still be time to do something to prevent extinction is absolutely vital for every Arctic jurisdiction.

Another way in which the listing structure may be able to adapt to new threats better than a general structure is that it allows for a level of protection that is greater than that usually possible under the general protection structure. Imposing any form of species protection can have a negative impact on private property rights as it limits what a person may do with their land. However, where a species has been specifically designated as a protected species as a result of a peer-reviewed process relying on scientific evidence, there is a much stronger political argument for allowing limitations on private property rights than under the general structure where all species are protected regardless of need.⁶⁷⁶ In turn, this means that the level of protection which can be mandated is often higher. As the threats to Arctic species become greater, the higher the level of protection that can be imposed, the more likely it is that the measures will enable the species to be protected.

Despite the ways in which the listing structure will be able to adapt, however, the general nature of the protection still fails to allow for the specific needs of an endangered species to be met and for the threats which it is facing to be ameliorated. Like with the general structure, the protection afforded to species in a listing structure is generic. As such, the protection cannot be tailored to the needs of any particular species. In countries with a listing structure and a large part of the country not in the Arctic, such as the USA and Canada, this makes it difficult to provide Arctic specific protections or even protections which would address the future threats to the Arctic as they would also need to apply to non-Arctic species. Realistically, separate provisions may need to be made for the species in the Arctic but these could be similar to those suggested for the general structure above.

The third type of structure is the specific structure which allows for individual regulations to be drawn up to protect each species. One of the benefits of the specific structure is the way in which it allows for regulations to be drafted in such a way as to include specific

⁶⁷⁵ 12-Month Findings on Petitions to List 25 Species as Endangered or Threatened Species, 82 Federal Register 46,618 (5 October 2017); U. S. Fish and Wildlife Service (n 279).

⁶⁷⁶ Lynn E Dwyer, Dennis D Murphy and Paul R Ehrlich, 'Property Rights Case Law and the Challenge to the Endangered Species Act' (1995) 9 Conservation Biology 725.

measures to combat the precise threats which the species is facing. This makes the specific structure extremely flexible and makes it able to introduce measures to combat the current and future threats to the Arctic. Any species for which protection is considered desirable can have an individualised set of regulations written to create the best possible conditions for that species' survival and these can, where feasible, include measures aimed at reducing the impact of climate change, plastic and chemical pollution and increased access to the Arctic by humans.

Although the specific structure, being the most versatile structure, seems to be the best model for endangered species conservation, there are some down sides to the structure. In theory, the regulations created in order to protect a species can be extremely flexible but in practice, even in Greenland, there are actually very few examples of tailored protection measures being put in place, and even the ones which have been introduced are not very imaginative. In addition to this (and perhaps explaining why few tailored measures have been put in place), the process of identifying species for protection, deciding what protections are necessary to reduce the risk of that species becoming extinct and drafting the relevant regulations is time consuming, expensive and requires a significant amount of biological, ecological and legal expertise.

Despite these downsides, the specific structure is the most flexible and adaptable of the structures identified in this comparative analysis and may be the structure best able to cope with the threats which will be posed to the Arctic in the coming decades. The Arctic jurisdictions should therefore consider whether amendments could be made to their species protection systems to adopt a specific structure either as a primary structure or as a secondary one, in the form of particular exceptions for Arctic species, such as is found in Norway for the priority species.⁶⁷⁷ The process for listing species in the USA, Canada and the Northwest Territories, in particular, would enable the use of tailored protection measures because as part of the collation of evidence that a species is sufficiently at risk to warrant listing, the specific threats to that species must be considered. This then makes it fairly simple to design measures which would mitigate those particular risks.

⁶⁷⁷ Nature Diversity Act ss 23, 24.

4.3.6. Conclusion

This project has identified three structures of endangered species protection laws which exist in the Arctic and are likely to describe the species protection systems in many other countries as well. There are examples of Arctic systems falling into all three of the categories identified, with some systems displaying elements of more than one structure (although in all of the Arctic jurisdictions there is a primary structure with some secondary exceptions). These structures have different levels of flexibility to enable them to adapt to the environmental threats which will face the Arctic in the coming decades, such as climate change, pollution and human impact, none of which are threats with which the structures were designed to deal. Of the structures, the specific structure is the most adaptable as it allows for the creation of individualised protections for species.

This part of the analysis has recommended that there are a number of measures which jurisdictions could take to create a species protection system which is better able to protect Arctic species from the current and future threats which they will face. The changing threats to the Arctic are likely to have an impact on Arctic species within less than a generation. Unless measures are taken to limit the harm caused, it is likely that many Arctic species will soon become extinct.

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The recommendations made in this part are:

- For jurisdictions with a listing structure, the necessary amendments should be made to enable the list of protected species to be easily updated and introducing regular reviews of the threat status of Arctic species should be introduced. This should include amendments to the lists of protected species in countries which rely on the Habitats and Species Directive and the Birds Directive, even if the lists in those Directives are not amended.

- Arctic species should be proactively listed as threatened species on the basis of climate change predictions in all Arctic jurisdictions rather than waiting for populations to be harmed before taking action. In jurisdictions which have provisions for higher levels of protection, key Arctic species should be included on these lists given the serious threat which is posed by climate change in the Arctic.

- Jurisdictions should consider adopting, in whole or in part, a specific structure of endangered species protection to allow for individualised plans to be made for protecting Arctic species from future threats.

- Provisions should be adopted to combat the general threats facing Arctic species such as climate change, plastic in the Arctic Ocean, chemical pollution and the threat caused by increased access to the Arctic by humans. These provisions could be general for all species, for Arctic species alone or made part of specific regulations protecting individual species depending on the structure of the jurisdiction. It is really beyond the scope of this thesis to find solutions to environmental problems not directly relating to endangered species protection law but some suggested provisions include:
 - a prohibition on the use of plastics in shipping, fishing and other marine industries in the Arctic Ocean or a deposit scheme requiring industrial ships to return to port with the same weight of plastic with which they left. The forfeited deposits could be used to pay for rewards for plastic collection from Arctic beaches.

 - a prohibition on gas flaring except in emergency situations.

 - installing renewable technology in Arctic communities.

 - reducing the dependence of Arctic communities on carbon emitting fuels such as diesel for four-wheelers and open fires in homes.

- identifying sources of plastic and chemical pollution which are emitted directly into the Arctic Ocean and taking steps to eliminate them such as providing for more effective waste disposal in coastal Arctic communities and prohibiting discharge of chemicals into rivers which flow into the Arctic Ocean.
- developing codes of practice for cruises and shipping in the Arctic which require ships to limit their environmental impact.

5. Conclusion

This thesis has considered, in some considerable detail, the endangered species protection laws of the Arctic regions of North America and Europe. Rather than concentrating on international law like the studies which have been carried out in the past, this project has focussed almost entirely on the domestic legal systems of six of the eight Arctic nations, namely the United States of America, Canada, Greenland, Norway including Svalbard, Sweden and Finland. In each of the country studies, the species protection systems and the habitat protection systems surrounding endangered and threatened species have been discussed, along with contextual information about the history, geography, legal system and wildlife found in the Arctic of that country. Together, these country studies, the bulk of which can be found in appendices A to F (purely for reasons of space), form a comprehensive explanation of the laws surrounding the protection of species within the Arctic region.

As well as the deep descriptions of the laws of each jurisdiction, this project sought to identify the case law applicable to endangered species protection in the Arctic. This was done through the use of legal research methods, using legal databases, court websites and even newspaper reports, many in languages other than English, to find as many cases relating to species protection (which included hunting) as possible. The search was limited in time to the past twenty years and in geography to the Arctic regions. From this database, a number of case studies were selected to add to each country study in order to show how the law works in practice as well as the (often more aspirational) wording of legislation or regulations.

Using the body of law created by the country studies, the database and the case studies, it was possible to conduct a comparative legal study, using a modified version of Kamba's methodological process, which itself adopts a functional methodological framework (see 2.5.1, 2.6 and 2.8.3 above). The process was conducted in three parts. The first was the descriptive phase which involved preparing the country studies, database and case studies as has been described above. The second part was the identification phase which formed the foundations for the comparative analysis. The identification phase involved drawing out the similarities and differences between the six legal systems through comparing and

contrasting them. In Part I of the comparative analysis (see 4.1 above) this was done through the use of two iconic, circumpolar species, the polar bear and the Arctic fox, allowing the precise details of the laws of the different jurisdictions to be compared. at a micro level. In Parts II and III of the comparative analysis (see 4.2 and 4.3 above), the identification phase looked at the role of science in the selection of endangered species in the various jurisdictions and at the ability of the systems to handle the current and future environmental threats within the Arctic. While for Part I the identification phase was carried out at a micro level, for the second two sections it was conducted at a macro level. This enabled both a precise and intricate comparison of the jurisdictions (in Part I) and a consideration of some of the broader themes which emerged during the comparative process (in Parts II and III).

The final stage was the evaluatory phase. This was an alteration to Kamba's suggestion of an explanatory phase but evaluating the various approaches of the jurisdictions fulfilled the objects of the study in a more meaningful and effective way than merely explaining the reasons for the differences and similarities among the different jurisdictions. In the evaluatory phase, the various endangered species protection systems were evaluated, by way of comparison, against the standard set out in the objects of the study which was to assess the effectiveness of the laws to conserve Arctic species. In addition to this, the evaluatory phase allowed for the identification of good practice around the Arctic which enabled recommendations to be made as to actions which could be taken to improve the protection of endangered and threatened species within the Arctic.

There were five research questions established at the beginning of this study (see 1.2 above) and the overall aim of this project was to answer each of the questions. The questions have been answered throughout the thesis but a brief synopsis of the findings is useful at this stage. A full list of the recommendations made in this thesis can be found at appendix 0.

The first research question asked about the laws and regulations which are in place to protect Arctic species. The answer to this question forms the majority of each of the country studies (see appendices A to F) which set out the details of the various acts, codes, regulations and other legal instruments which govern the protection of species. In general, each jurisdiction had both a species protection system and a habitat protection system. The species protection systems fell into one of three structures, the general structure, which protects all species

regardless of threat status with the same protection methods, the listing structure, which protects only species listed as being endangered or threatened but grants all listed species the same level of protection and the specific structure, which provides for individual rules to be created for each species which is designated as requiring protection.

The second research question asked about the endangered species cases which have come before the courts of the jurisdictions included in this study and the ways in which the courts have dealt with them. This question was answered through the inclusion of case studies in the country studies, each of them demonstrating the ways in which the laws were applied in practice in that country. What was interesting about the case database and the case studies was the different approaches of the various legal systems, probably saying more about the differences in legal culture than specifically about endangered species protection. For example, in the USA cases are mostly public law challenges whereas in Norway the cases were mostly prosecutions for hunting offences. Canada and Finland follow the approach of the USA although with a greater mix of public and criminal cases, while in Greenland and Sweden there were almost no cases at all and those which could be found were criminal cases rather than public law disputes. Comments about the ways in which the courts deal with cases before them can be found in the country study outlines in chapter 3 and comparisons, where relevant cases were available, are included in the comparative analysis at chapter 4.

The third research question called for the detailed comparison of the six species protection systems in relation to specific species. This was conducted in Part I of the comparative analysis with the comparison of the systems in relation to the polar bear and the Arctic fox (see 4.1 above). The analysis covered all of the specifics of the endangered species protection systems in the six Arctic countries, showing how they work when applied to particular species. The benefit of this is that it provides a method for comparing details which are otherwise difficult to compare. In relation to the polar bear, the comparison showed that the weakest protections for polar bears are found in Canada where the polar bear is only listed as a Species of Special Concern which brings with it no protections, and where sport hunting of polar bears is allowed, even by tourists. One good example for Canada to follow would be the United States which has listed the polar bear based on the predicted threat posed by climate change and which has outlawed sport hunting, limiting hunting only to indigenous people. Canada may need to amend the Species at Risk Act

2002 in order to allow it to list species such as the polar bear, and the Arctic fox, as threatened without having an unjust impact on indigenous people but if this is not possible then the polar bear could be protected through the Marine Mammal Regulations 1993.⁶⁷⁸ Other recommendations made include that the USA should take steps to prohibit polar bear safaris in order to reduce disturbance to polar bears, as Greenland has done and that Greenland and Svalbard should introduce a consultation requirement like that which is found in the USA, requiring government departments to consult with the agency or department responsible for species protection if any action of the government may impact on a protected species. In relation to Arctic foxes, the biggest discrepancy in protection is between Europe and North America. In Europe the Arctic fox is highly threatened and is therefore heavily protected but in North America, Arctic foxes are far more common so are not listed as protected species and are only protected by hunting rules. The analysis showed the difference which listing a species makes to its protection and recommended that Arctic species such as the Arctic fox should be listed as endangered or threatened on the basis of climate change predictions and suggested that regional action could be taken to offer baseline protections for Arctic species which are endangered in one part of the Arctic, even if they are common in another part. The analysis also recommended that Canada should take action to expand the scope of protection for species listed under the Species at Risk Act 2002 either through cooperation with the territories or by using its powers to extend protection to territorial land. Other recommendations included the ending of sport hunting for Arctic species and encouragement for Greenland and Norway to expand the scope of their species protection and priority species protection systems to additional species.

The fourth research question considers the role of independent scientific evidence in the selection of species for listing as endangered. This is an important question because basing decisions about endangered species protection on high quality scientific data is preferable to making decisions for entirely political purposes or merely on the basis of lobbying by those for or against protection of a species. Scientific data can provide information about the extent of a population, whether that population is increasing or declining, any changes in behaviour, the habitats on which the species relies and the likely impact of predicted changes to those habitats. This can help to inform the decision about whether or not to list

⁶⁷⁸ Species at Risk Act 2002; Marine Mammal Regulations 1993.

the species and can also help in deciding what protection measures need to be put in place to aid the species to recover or to prevent it from declining.

Question four was answered in Part II of the comparative analysis (see 4.2 above) which looked at the role of science in species protection by comparing and contrasting the various different models in the jurisdictions studied by this project. The research showed that the USA and Canada had fairly robust systems in place for identifying new species for protection and for using scientific evidence as part of the decisions making process, although this evidence was not independent, even in Canada where COSEWIC is supposed to be an independent scientific body. In the European jurisdictions, however, there are almost no provisions for updating the lists of endangered or threatened species and there is little evidence of the use of independent scientific information being used regularly to review and update the lists of protected species.

One issue that arose was the role of politics in the selection of species for protection. It is arguable that such decisions should be made entirely on the basis of science by independent bodies but, as Part II of the comparative analysis showed, the protection of species is an inherently political matter as it involves the distribution of public resources in terms of finances and administrative time, protection of species can result in limitations on individual property rights and because the protection of species is a demonstration of morals, values and a society's worldview. All of these should be dictated by the electorate rather than an unelected scientific body. The research therefore found that it would be undesirable to uncouple the scientific aspect of species protection from the political aspect.

Having considered the various models of the use of science and thought about the role of science, including traditional ecological knowledge (such as that held by indigenous people), and the role of politics in the protection of species, it was possible to suggest a new model, drawing on the best aspects of the models studied. The model recommended provides for a balance between independent scientific information and oversight from elected officials and ensures that the lists of protected species are regularly updated as new threats emerge. Each country should consider establishing an entirely independent scientific body made up of ecological and biological experts from academic and local communities. This body would make recommendations to the government regarding the listing of species, with the recommendations opened up to peer review and public scrutiny

before a final decision is made. This model is similar to that found in the Canadian federal system.

The fifth and final research question asked about the adaptability of the current endangered species protection systems to current and future threats to the Arctic. This question was answered in the third part of the comparative analysis (see 4.3 above). A number of threats were identified, including climate change, the impact of plastics in the ocean, pollution from chemicals and radiation and the effect of increased access to the Arctic by humans for tourism, shipping and natural resource extraction. The structures of the species protection systems were analysed and three distinct structures were identified, into which each of the species protection systems fell. These structures are the general structure, which provides a level of protection to all species regardless of their threat status, the listing structure, which provides particular protections to those species included on a list of endangered or threatened species, and the specific structure, in which individual regulations are drawn up to protect species. Each of the structures was evaluated to see if it could adapt to the changing threats to Arctic species. Of all of the structures, the specific structure was found to be the most flexible and the best able to meet the needs of individual Arctic species, although it was acknowledged that protecting species under this structure is expensive and time consuming. This part of the comparative analysis recommended that jurisdictions consider adopting a specific structure, either for all Arctic species or for the most vulnerable ones. Recommendations were also made that Arctic species should be listed as threatened or endangered on the basis of climate change predictions rather than waiting until populations are already depleted before taking action. Although not the primary focus of this thesis, the third part of the comparative analysis also made some suggestions as to measures which could be taken in the Arctic to combat the threats identified.

This project has made an original contribution to knowledge by conducting a study which has never been carried out before. The collation of information about endangered species protection laws from around the Arctic as well as details of legal cases from the past twenty years which have occurred north of the Arctic Circle has enabled the creation of a new body of Arctic environmental law. The comparative process then undertaken using the data collected has allowed new insights to be reached and new conclusions drawn about the protection of Arctic species. This has allowed a number of recommendations to be made about improvements which could be made at a domestic level to enhance species

protection. This project has also contributed to knowledge by the identification of three types of structure of species protection laws (see Part III, Comparative Analysis). This analysis does not appear elsewhere in the literature on endangered species protection, either in the Arctic or more broadly. Finally, this project has made a contribution to knowledge through developing, by way of amendment of Kamba's method for comparative law, a method for conducting comparative legal studies which could be applied to other projects within the field of endangered species protection law or environmental law more widely.

Having reached these conclusions, the next question is how the findings and recommendations in this thesis can best be disseminated. The recommendations which have been made are aimed at amending national legislation within the countries included in this study. The key bodies which should be interested in it are therefore the national governments of those countries. One way to reach the national governments would be through dissemination by way of the Arctic Council, which, while it cannot change domestic legislation, can provide a forum in which discussions can be held about environmental matters at a governmental level. Another forum which is becoming increasingly important on a governmental level within the Arctic is the Arctic Circle Assembly, held annually in Reykjavik, Iceland. This conference is attended by senior government officials from the Arctic and from countries interested in the Arctic, academics, scientists, indigenous people and others concerned about the Arctic. This could be a useful place in which to begin to disseminate the findings of this study. Another place to which it may be possible to disseminate this work is the many charities and organisations who act to protect the Arctic, through campaigning, litigation or through direct work in the Arctic. Organisations such as the Natural Resources Defence Council, Trustees for Alaska and Earthjustice may be interested in the findings and be able to make use of it in their work. It was, after all, a passing remark at Trustees for Alaska about how other Arctic countries approached the problem our client was facing which led to this project in the first place.

It is also necessary to consider what further work needs to be or could be carried out in order to develop this study in the future. One obvious piece of work will be to keep up to date with any changes to legislation, regulations and institutions relating to endangered species protection within the Arctic. This is important because law changes quickly and the information contained in this thesis will soon become incorrect if it is not regularly updated. It would also be good to keep updating the database with any new cases which

occur within the Arctic and to find a way of disseminating this work, perhaps through creating an online database which could be used by other researchers. No database like this exists and it could therefore be a useful tool for academics and for members of the public, particularly those who live in the Arctic. This project could also be developed by expanding it beyond species protection into other aspects of environmental law in the Arctic such as waste, pollution or industrial permitting. The methods developed and used in this study would work for other topics; they would also work for regions other than the Arctic allowing the production of comparative studies of endangered species protection laws within other regions.

With every passing week, more reports are published showing that the Arctic is changing faster than anywhere else on earth. The rate of warming and the potential for devastating loss of biodiversity have both, it seems, been underestimated. There may be time to reverse the risk of the loss of iconic, rare or even common Arctic species but it is clear that there is not time to waste. This is the time for our generation to act. If we do not, we will be held responsible by future generations for allowing, if not causing, the destruction of the northern polar biome as we know it.

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A. United States of America

A.1. History and Geography of Alaska

The United States of America only became an Arctic nation in 1867 when Secretary of State William Seward agreed to purchase Alaska from the Russians for \$7.2 million.⁶⁷⁹ The deal was not met with universal approval; many called it ‘Seward’s folly’ and the New York Tribune referred to the newly named Alaska as ‘Walrussia’.⁶⁸⁰ It seemed that Seward had paid \$7.2 million for a land of ice and snow with no resources.⁶⁸¹ Instead, for two cents an acre, Seward had acquired a territory which would prove to be both lucrative and politically important, a land of gold and oil, of salmon and caribou and a land which is geographically significant, giving the United States a position within the Arctic.⁶⁸² Alaska became the 49th state on 3 January 1959.⁶⁸³ The state shares a lengthy border with Canada but has no border with mainland USA. The mainland is commonly referred to as the ‘Lower 48’.

Alaska is frequently described as America’s ‘last frontier’.⁶⁸⁴ Its sheer scale, its harsh climate and its wilderness that defies superlatives combine to create a land of legends and myths. Alaska is the United States’ largest state; it is so large that if it were to be divided in two, Texas would be the country’s third largest state. It covers a total of 615,230 square miles but is home to a mere 737,080 people.⁶⁸⁵ Over half of the population, more than 400,000 people, live in or around the city of Anchorage or in the nearby Mat-Su Valley located in south central Alaska.⁶⁸⁶ Fairbanks, the second largest city is located in the interior, just south of the Arctic Circle. The capital city is Juneau which is the United States’ only state capital which is not accessible by road. The city, like many of the towns and villages in Alaska, is completely cut off from the road system and can only be accessed by boat or by air. The rest of the population of Alaska lives in smaller towns and villages,

⁶⁷⁹ Walter R Borneman, *Alaska: Saga of a Bold Land* (Perennial 2004) 108, 111; Thomas A Bailey, ‘Why the United States Purchased Alaska’ (1934) 3 *Pacific Historical Review* 39, 42.

⁶⁸⁰ Borneman (n 679) 108, 111; Bailey (n 679) 42.

⁶⁸¹ Borneman (n 679) 108.

⁶⁸² Frank A Golder, ‘The Purchase of Alaska’ (1920) 25 *The American Historical Review* 411, 425.

⁶⁸³ Alaska Statehood Proclamation; Borneman (n 679) 402–403; Claus M Naske and Herman E Slotnick, *Alaska: A History* (University of Oklahoma Press 2011) 233–234.

⁶⁸⁴ Borneman (n 679) xx.

⁶⁸⁵ *ibid* 3; ‘Alaska Population Estimates’ <<http://live.laborstats.alaska.gov/pop/>> accessed 16 March 2018.

⁶⁸⁶ ‘Alaska Population Estimates’ (n 685).

some of them located on the road system or accessible by train but many others located in isolated locations only accessible by plane, boat, snowmachine or dog sled.

The overwhelming majority of Alaska is wilderness and it is wilderness on a grand, enormous scale; huge mountain ranges, epic glaciers, frozen tundra, deep valleys, majestic rivers, giant forests and remote islands.⁶⁸⁷ It demands superlatives. The state is home to North America's highest mountain, Denali, which rises to 20,300ft, and to 17 of the 20 highest mountains in the United States.⁶⁸⁸ Around 5% of the land is covered in glaciers and around half of the world's glaciers are located within Alaska.⁶⁸⁹ There are over 3,000 rivers and more than 3 million lakes, the largest of which, Lake Iliamna, is larger than the state of Connecticut.⁶⁹⁰ Wrangell St Elias National Park, in south central Alaska, is America's largest national park, a national park so untouched that it contains numerous mountain peaks which have never been climbed. Writing following his participation in the Harriman Alaska Expedition of 1899, geographer Henry Gannet, captured the scale of Alaska:

There are glaciers, mountains, fjords elsewhere, but nowhere else on earth is there such abundance and magnificence of mountain, fjord and glacier scenery ... For one Yosemite in California, Alaska has hundreds. The mountains and glaciers of the Cascade Range are duplicated and a thousandfold exceeded in Alaska.⁶⁹¹

Not all of Alaska is located north of the Arctic Circle. The Arctic Circle crosses the state a little south of the Brooks Range of mountains which are the most northerly mountains in the United States.⁶⁹² Running east to west for 700 miles, with its highest points at almost 9,000ft, the Brooks Range divides the rivers which flow south to the Pacific Ocean and the ones which drain north to the Arctic Ocean.⁶⁹³ The Brooks Range also marks the tree line with few trees naturally growing to their north.⁶⁹⁴ Heading north, the mountains give way

⁶⁸⁷ Borneman (n 679) 3.

⁶⁸⁸ *Modern School Atlas* (91st edn, Philip's) 38; Borneman (n 679) 4–8.

⁶⁸⁹ 'Alaska - Nature and Scientific Wonders' (*Smithsonian Magazine*, 6 November 2007).

⁶⁹⁰ *ibid.*

⁶⁹¹ Henry Gannett, *Harriman Alaska Expedition* (1901); Doug Scott, *The Enduring Wilderness* (Fulcrum Publishing 2004) 89.

⁶⁹² Borneman (n 679) 12; *Modern School Atlas* (n 688) 38.

⁶⁹³ *Modern School Atlas* (n 688) 38.

⁶⁹⁴ Wendy K Elsner and Janet C Jorgenson, 'White Spruce Seedling (*Picea Glauca*) Discovered North of the Brooks Range Along Alaska's Dalton Highway' (2009) 62 *ARCTIC* 342, 342.

to the tundra which slopes down to the coastal plain.⁶⁹⁵ The coastal plain is formed from continuous permafrost but the thawing of the active layer in the summer leads to large areas of surface water.⁶⁹⁶ There is limited vegetation, much of it mosses, lichens and low level shrubs.⁶⁹⁷ To the east is the Arctic National Wildlife Reserve, almost 20 million acres of untouched Arctic wilderness managed by the US Fish and Wildlife Service.⁶⁹⁸ To the west is the National Petroleum Reserve – Alaska, 23.6 million acres of federal land set aside for oil and gas leasing while still providing an important habitat for wildlife.⁶⁹⁹ Between the two lie the Prudhoe Bay oil field, the nation’s largest oil field, and the Trans-Alaska Pipeline which transports oil from the northern coast to the Pacific Ocean at Valdez, 800 miles to the south. Beyond the coast are the Chukchi and Beaufort seas, both frozen during the winter but opening up for a few months in the late summer, allowing whales to migrate.⁷⁰⁰ During the long winter, the ice forms a platform on which polar bears and seals mate, rest, travel and hunt.⁷⁰¹

The Arctic region of Alaska is sparsely populated. Most of the communities lie along the coastline, with the largest, Utqiagvik (formerly known as Barrow), located at the most northerly point of the state. The town is the home of the North Slope Borough Municipal government which has responsibility for most of the Arctic, with the Northwest Arctic Borough taking responsibility for the area around Kotzebue in the southwest. The southeast Arctic is part of the Yukon-Koyukuk unorganised borough.⁷⁰² The majority of the population is indigenous with 80% of the population of the North Slope Borough coming from the Iñupiat tribe with that figure rising to over 90% in more than half of the villages.⁷⁰³

⁶⁹⁵ *Modern School Atlas* (n 688) 38.

⁶⁹⁶ ‘Alaskan North Slope Coastal Tundra’ (*World Wildlife Fund Ecoregions*) <<https://www.worldwildlife.org/ecoregions/na1103>> accessed 4 June 2018; Torre Jorgenson and others, ‘Permafrost Characteristics of Alaska’ 1; Mary Lynne Corn, *Arctic National Wildlife Refuge: Background and Issues* (Nova Publishers 2003) 12.

⁶⁹⁷ ‘Alaskan North Slope Coastal Tundra’ (n 696).

⁶⁹⁸ Corn (n 696) 1; Robert L Fischman, *The National Wildlife Refuges* (Island Press 2003) 189.

⁶⁹⁹ National Petroleum Production Act of 1976; Joel Aurora, ‘Drill Here Not There: Petroleum Leasing and Conservation in Alaska’s National Petroleum Reserve’ (2013) 65 *Hastings Law Journal* 1165, 1168–1169.

⁷⁰⁰ ‘Mammal List - Arctic’ (*US Fish and Wildlife Service*) <<https://www.fws.gov/refuge/arctic/mammlist.html>> accessed 4 June 2018.

⁷⁰¹ *ibid*; *Alaska Oil & Gas Association v Jewell* (n 8) 551.

⁷⁰² ‘The North Slope Borough’ <<http://www.north-slope.org>> accessed 4 June 2018; ‘Northwest Arctic Borough, Alaska’ <<https://www.nwabor.org/>> accessed 4 June 2018.

⁷⁰³ ‘North Slope Borough Economic Profile and Census Report’ (2015) 65–66 <http://www.north-slope.org/assets/images/uploads/NSB_Economic_Profile_and_Census_Report_2015_FINAL.pdf> accessed 4 June 2018.

Unlike the indigenous tribes in the Lower 48, most tribes in Alaska are not organised onto reservations.⁷⁰⁴ Instead, they are organised into Native Corporations which are corporate bodies, created under the Alaska Native Claims Settlement Act of 1971 in order to compensate the tribes for giving up their land claims.⁷⁰⁵ Alaskan tribes had claims to land dating back far beyond the arrival of the Russians and the subsequent sale of Alaska to the United States but as Alaska gained statehood, and with the discovery of oil at Prudhoe Bay, it became necessary to settle the question of land ownership.⁷⁰⁶ The act extinguished all ‘aboriginal title’ in Alaska, whether based on ‘right, title, use or occupancy’ and, in return, gave Alaska native tribes the right to select almost 40 million acres of land.⁷⁰⁷ The act also committed the federal government to pay one billion dollars in compensation.⁷⁰⁸ The Alaska Native Claims Settlement Act created 13 Regional and over 200 Village Native Corporations to select and manage the land and to distribute the financial compensation.⁷⁰⁹ Indigenous people were given shares in the corporations and receive dividends from any income made by the corporation.⁷¹⁰ Native Corporations play an important role in public life in Arctic Alaska. They provide income for their members and manage the land on which their tribe or community relies for subsistence purposes. They have also ‘become a receptacle for Native cultural pride and identity’.⁷¹¹

Cultural identity is vitally important to the indigenous people in the Alaskan Arctic.⁷¹² It is demonstrated in many ways but particularly by subsistence hunting for traditional foods such as whale, caribou, moose, walrus, fish and berries.⁷¹³ Helga Eakon, an Iñupiaq Eskimo, described the importance of subsistence in the Iñupiaq culture:

‘Subsistence is a way that Native peoples of Alaska have preserved their cultures. This way of life is not confined to the land. It stretches out to the sky and ... the waters and the rivers. The creatures of the earth give themselves to the people,

⁷⁰⁴ Fischman (n 698) 186.

⁷⁰⁵ Alaska Native Claims Settlement Act 43 USC ch 33.

⁷⁰⁶ John F Walsh, ‘Settling the Alaska Native Claims Settlement Act’ (1985) 38 Stanford Law Review 227, 229–230.

⁷⁰⁷ Alaska Native Claims Settlement Act 43 USC § 1603.

⁷⁰⁸ *ibid* § 1605; Walsh (n 706) 227, 229.

⁷⁰⁹ Alaska Native Claims Settlement Act 43 USC § 1606-1607; Walsh (n 706) 229–230.

⁷¹⁰ Alaska Native Claims Settlement Act 43 USC § 1606-1607.

⁷¹¹ Walsh (n 706) 228.

⁷¹² ‘North Slope Borough Economic Profile and Census Report’ (n 703) 37–48.

⁷¹³ *ibid*.

who in turn share with family and friends, shaping relationships that celebrate life.⁷¹⁴

Almost 99% of Iñupiat households in the North Slope Borough consume traditional foods and participation in hunting and gathering practices plays a role in providing a sense of community, belonging and intergenerational continuity to many families.⁷¹⁵ About one in four adult males take part in the spring whaling.⁷¹⁶ There has, however, been a drop in both marine and land hunting and those who continue to hunt are being forced to travel further distances from their villages as a result of the changes to habitats and populations caused by climate change.⁷¹⁷

A.2. Government and Legal System

A.2.1. Federal Government

There are three branches of federal government in the USA, held by three separate institutions.⁷¹⁸ Executive power is exercised by the Office of the President, legislative power is held by Congress and judicial power is in the hands of the federal court system.⁷¹⁹ Each of the three branches provide a check and balance on the other branches of government.⁷²⁰

Executive power in the United States is granted to the President by Article II of the Constitution.⁷²¹ It is the only branch of government where power is held in the hands of a single person, the President, who is directly elected by the population of the United States.⁷²² Despite this, presidential power is not unlimited; the President is not a

⁷¹⁴ *ibid* 44.

⁷¹⁵ *ibid* 240.

⁷¹⁶ *ibid* 247.

⁷¹⁷ *ibid* 246, 261.

⁷¹⁸ E Allan Farnsworth, *An Introduction to the Legal System of the United States* (Steve Sheppard ed, 4th edn, Oxford University Press 2010) 158.

⁷¹⁹ *ibid*.

⁷²⁰ *ibid* 159.

⁷²¹ United States Constitution 1789, Article II, Section 1.

⁷²² Nigel Bowles and Robert K McMahon, *Government & Politics of the United States* (3rd edn, Palgrave MacMillan 2014) 124.

monarch.⁷²³ While public expectations of the President and his ability to affect change are high, the constitutional role is remarkably weak.⁷²⁴

The majority of federal laws are created by legislation, known as Acts of Congress, which are passed by Congress as the legislative branch of government. The Constitution vests all 'legislative power' in the 'Congress of the United States'.⁷²⁵ The Congress is a bicameral legislature with two chambers, a lower chamber known as the House of Representatives and an upper Chamber, the Senate.⁷²⁶ Both houses are directly elected by the people of the United States. In the House of Representatives, each state sends a number of representatives in relation to the size of its population whereas in the Senate, each state, regardless of size, has two senators.⁷²⁷ This means that the population of the United States is represented equally in the House of Representatives and the 'equality of the states' is preserved in the Senate.⁷²⁸

A.2.2. Alaska Government

In Alaska, executive power is held by the governor and lieutenant governor who are elected by the people of Alaska.⁷²⁹ The governor then appoints the heads of the agencies which exercise executive power.⁷³⁰ Legislative power is held by the Alaska Legislature which, like the federal system has a bicameral structure with the House of Representatives as the lower chamber and the Senate as the upper chamber.⁷³¹ Except in special circumstances, the Alaska legislature only meets between January and May, allowing many of its members to retain outside employment in the state, often in the fishing or tourism industry.⁷³² Within Alaska there are also over two hundred tribal governments each with their own authority.⁷³³

⁷²³ John Hart, 'The Presidency' in Robert Singh (ed), *Governing America* (Oxford University Press 2003) 170.

⁷²⁴ *ibid.*

⁷²⁵ United States Constitution 1789, Article 1, Section 1.

⁷²⁶ *ibid.*, Article 1, Section 1; Farnsworth (n 718) 73.

⁷²⁷ Farnsworth (n 718) 73; United States Constitution 1789, Article 1, Section 3.

⁷²⁸ Farnsworth (n 718) 73.

⁷²⁹ Herbert M Kritzer (ed), *Legal Systems of the World*, vol I (ABC-CLIO 2002) 23.

⁷³⁰ *ibid.*

⁷³¹ *ibid.*

⁷³² *ibid.*

⁷³³ *ibid.*

A.2.3. Legal System

Both the federal legal system and the Alaska legal systems are based on a common law system, adapted, in the case of the federal system, from the English legal system at the time that the country was established.⁷³⁴ The common law system, with judges interpreting the law and judgments of superior courts being binding on lower courts remains to this day although there is somewhat more codification of laws than would be found in the United Kingdom.⁷³⁵ Judicial interpretation of the law, particularly of the constitution, can result in large changes to the law without the involvement of the legislature.⁷³⁶

A.2.4. Sources of Law

Within the United States there is a hierarchy of sources of law. The highest level of law is found in the constitutions, firstly the US Constitution, drafted in 1787, and still broadly the same as it was in the eighteenth century, and then the state constitutions.⁷³⁷ This is followed by statutes passed by the federal legislature and state legislatures.⁷³⁸ Federal statutes frequently grant broad powers to a federal agency which then uses that authority to pass regulations setting out the details of how the law will work.⁷³⁹ State statutes do likewise for state agencies. Preliminary materials do not form a source of law and the courts interpret the law as it is written, without consideration of such information. The federal legislature handles matters which affect the nation as a whole and the state legislatures deal with matters local to that state, both civil and criminal.

A.2.5. Courts

The United States has a dual court system with both federal courts and state courts.⁷⁴⁰ The federal courts hear three types of cases: cases in which the relevant law is the United States Constitution, an Act of Congress or an international treaty, cases in which the United States (including its agencies and officers) is a party and cases in which there is diversity

⁷³⁴ James V Calvi and Susan Coleman, *American Law and Legal Systems* (8th edn, Routledge 2017) 12.

⁷³⁵ *ibid* 15.

⁷³⁶ *ibid* 12.

⁷³⁷ United States Constitution 1789; Constitution of the State of Alaska 1956; Lawrence Baum, *American Courts: Process and Policy* (4th edn, Houghton Mifflin 1998) 2; Calvi and Coleman (n 734) 150.

⁷³⁸ Baum (n 737) 4.

⁷³⁹ *ibid*.

⁷⁴⁰ Calvi and Coleman (n 734) 16–17.

jurisdiction which means that the dispute is between parties from different states and the value of the claim is over \$75,000.⁷⁴¹ All other cases are heard by a state court systems.

In the federal system, there are three levels of courts, the Supreme Court, the Courts of Appeal and the trial courts. The Supreme Court, the highest court in the United States, was established under Article III of the United States Constitution and consists of up to a current maximum of nine justices who are nominated by the President and confirmed by the Senate.⁷⁴² The justices retain their positions for life unless they resign, retire or are removed from office following impeachment by Congress for poor behaviour.⁷⁴³ Below the Supreme Court are thirteen Courts of Appeals, each one handling appeals within one of the thirteen circuits (circuits numbers one to twelve, the DC Circuit and the Federal Circuit).⁷⁴⁴ Alaska is located within the Ninth Circuit so all appeals from the District Court of Alaska are heard by the Ninth Circuit Court of Appeals which also covers many of the west coast states including California, Oregon and Montana. The District Courts are one part of the first instance level courts in the federal system, along with a number of specialist courts and tribunals established under Article I of the United States Constitution.⁷⁴⁵ There are 94 judicial districts, of which Alaska forms a single district, with the District Court of Alaska hearing federal cases from across the state.⁷⁴⁶ The District Court of Alaska sits in Anchorage, Fairbanks, Juneau, Ketchikan and Nome.⁷⁴⁷

The Alaska state court system somewhat mirrors the federal system with a structure that includes trial courts, a Court of Appeals and a Supreme Court.⁷⁴⁸ The lowest courts are the District Courts, of which there are 38 courts, divided into four judicial districts.⁷⁴⁹ These courts are located in towns and communities across Alaska including the Arctic

⁷⁴¹ Farnsworth (n 718) 98–99.

⁷⁴² United States Constitution 1789, Article III, Article II, Section 2, Clause 2; Circuit Judges Act 1869; Herbert M Kritzer (ed), *Legal Systems of the World*, vol IV (ABC-CLIO 2002) 1701–1703.

⁷⁴³ Kritzer, *Legal Systems of the World* (n 742) 1704.

⁷⁴⁴ Farnsworth (n 718) 94–96.

⁷⁴⁵ Kritzer, *Legal Systems of the World* (n 742) 1703–1705.

⁷⁴⁶ *ibid* 1703; 'United States District Court - District of Alaska' <<https://www.akd.uscourts.gov/>> accessed 22 July 2019.

⁷⁴⁷ 'Court Locations' (*United States District Court - District of Alaska*) <<http://www.akd.uscourts.gov/court-info/court-locations>> accessed 23 April 2018.

⁷⁴⁸ 'Court System Information' (*Alaska Court System*) <<http://www.courts.alaska.gov/main/ctinfo.htm#trial>> accessed 22 July 2019.

⁷⁴⁹ *ibid*; 'Court Directory' (*Alaska Court System*) <<http://www.courts.alaska.gov/courtudir/index.htm#trial>> accessed 22 July 2019.

communities of Utqiagvik, Kotzebue and Fort Yukon.⁷⁵⁰ There are 23 sitting judges who rotate around the court locations.⁷⁵¹ The District Courts have a limited first instance jurisdiction and mostly hear minor criminal cases, small civil cases, cases involving domestic violence and ‘emergency children’s cases’.⁷⁵² The second tier of trial courts consists of the Superior Courts which are located in the larger towns and, in the Arctic, in Utqiagvik and Kotzebue.⁷⁵³ The Superior Courts have general jurisdiction and can hear all first instance matters and appeals from the District Courts.⁷⁵⁴ Appeals in criminal matters from either the District Courts or the Superior Courts are heard by the Court of Appeals which sits with three judges.⁷⁵⁵ Its decisions are only binding on the parties and not on the inferior courts. The most senior court in Alaska is the Alaska Supreme Court which has the final say in both civil and criminal matters.⁷⁵⁶ It consists of five judges and sits in Anchorage, Fairbanks, Juneau and, where necessary, in any other Alaskan community.⁷⁵⁷

A.3. Arctic Wildlife in Alaska

The American Arctic, with its varied habitats and untouched wilderness provides an ideal environment for a large number of species. The largest and most iconic is the polar bear, two populations of which live on the sea ice habitat off the coast of northern Alaska, with female polar bears coming onshore to build dens in which to give birth and raise their young.⁷⁵⁸ The Arctic region is also home to four populations of caribou, the Western Arctic, Teshekpuk, Central Arctic and Porcupine herds.⁷⁵⁹ Caribou, the same species as European reindeer, are undomesticated.⁷⁶⁰ They live primarily on open tundra and migrate large distances to the coastal tundra to calve.⁷⁶¹ The coastal plain is also home to mammals such as the wolverine, beaver, muskox, moose and Arctic fox as well as to many smaller species of shrew, lemming and vole.⁷⁶² The wetlands of the coastal plain are also a prime

⁷⁵⁰ ‘Court Directory’ (n 749); ‘Alaska Court System Venue Map’.

⁷⁵¹ ‘Court System Information’ (n 748); ‘Court Directory’ (n 749).

⁷⁵² Kritzer, *Legal Systems of the World* (n 729) 23.

⁷⁵³ ‘Alaska Court System Venue Map’ (n 750); Kritzer, *Legal Systems of the World* (n 729) 23.

⁷⁵⁴ Kritzer, *Legal Systems of the World* (n 729) 23.

⁷⁵⁵ *ibid.*

⁷⁵⁶ *ibid.*

⁷⁵⁷ *ibid.*

⁷⁵⁸ *Alaska Oil & Gas Association v Jewell* (n 8) 551.

⁷⁵⁹ ‘Caribou Species Profile’ (*Alaska Department of Fish and Game*)

<<http://www.adfg.alaska.gov/index.cfm?adfg=caribou.main>> accessed 7 June 2018.

⁷⁶⁰ *ibid.*

⁷⁶¹ *ibid.*

⁷⁶² ‘Alaska Wildlife Action Plan 2015’ (n 469) 35–36.

nesting ground for thousands of species of birds which migrate north during the short summer season in order to breed.⁷⁶³

The waters off the Arctic coast of Alaska are home to a number of marine mammals, including four species of seal, often known collectively as the ice seals, namely the ringed seal, the bearded seal, the spotted seal and the ribbon seal. Each year the waters also host migrating bowhead, beluga and gray whales which spend the summer in Arctic waters before returning south as the sea ices over.⁷⁶⁴ Some marine species, such as the polar bear and the Pacific walrus rely on the sea ice as a platform from which to hunt, mate, rest and travel.⁷⁶⁵ Such species are reliant on the frozen habitat of the Arctic Ocean⁷⁶⁶

A.4. Species Protection

A.4.1. Endangered Species Act of 1973

The Endangered Species Act was passed in 1973, in response to a realisation by Congress that rapid industrialisation had led to the extinction or near extinction of a large number of species in the United States.⁷⁶⁷ Congress recognised that ‘various species of fish, wildlife, and plants in the United States have been rendered extinct as a consequence of economic growth and development untempered by adequate concern and conservation’ and that ‘other species of fish, wildlife, and plants have been so depleted in numbers that they are in danger of or threatened with extinction’.⁷⁶⁸ The Endangered Species Act was not the first attempt at wildlife protection in the United States: the Endangered Species Preservation Act of 1966 and the Endangered Species Conservation Act of 1969 both predated the Endangered Species Act.⁷⁶⁹ The first of these was mostly aimed at providing powers of land acquisition to protect endangered species and did not contain a prohibition against the destruction of or harm to a species and the second was concerned only with species that were ‘threatened with worldwide extinction’ rather than species native to the

⁷⁶³ *ibid.*

⁷⁶⁴ Sue E Moore and Douglas P Demaster, ‘Cetacean Habitats in the Alaskan Arctic’ (1998) 22 *Journal of Northwest Atlantic Fishing Science* 55, 56–58.

⁷⁶⁵ ‘Alaska Wildlife Action Plan 2015’ (n 469) 16.

⁷⁶⁶ *ibid.*

⁷⁶⁷ 16 U.S.C. § 1531(a)(1) and (2).

⁷⁶⁸ Endangered Species Act 1973 § 1531(a)(1)-(2).

⁷⁶⁹ Endangered Species Preservation Act of 1966, Pub. L. No. 89-699, 80 Stat. 926 (repealed 1973); Endangered Species Conservation Act of 1969, Pub. L. No. 91-135, 83 Stat. 275 (repealed 1973).

United States.⁷⁷⁰ The Endangered Species Act of 1973 was therefore revolutionary. The Supreme Court in *Tennessee Valley Authority et al v Hill* described the Endangered Species Act as ‘the most comprehensive legislation for the preservation of endangered species ever enacted by any nation...the plain intent of Congress in enacting this statute was to halt and reverse the trend toward species extinction, whatever the cost’.⁷⁷¹ Congress itself declared that ‘the purposes of this Act are to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, [and] to provide a program for the conservation of such endangered and threatened species’.⁷⁷²

A.4.1.1. Listing

The key to the Endangered Species Act is the listing procedure. Only once a species has been listed do the protections provided by the act take effect. The act authorises the Secretary of the Interior and the Secretary of Commerce, within their respective spheres of responsibility, to determine whether or not a species is threatened or endangered and, if they make a determination that a species is threatened or endangered, to list that species accordingly.⁷⁷³ Where the determination is made by the Secretary of Commerce, he does not list the species himself but instead instructs the Secretary of the Interior to do so on his behalf.⁷⁷⁴ Terrestrial species fall under the authority of the Department of the Interior and the Secretary’s responsibilities have been delegated to the United States Fish and Wildlife Service.⁷⁷⁵ Meanwhile, the US Department of Commerce deals with all marine species with responsibility delegated to the National Marine Fisheries Service.⁷⁷⁶

The term species is defined under the act as including ‘any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature’.⁷⁷⁷ In further defining the term, the act provides that fish

⁷⁷⁰ Endangered Species Preservation Act of 1966, Pub. L. No. 89-699, 80 Stat. 926 (repealed 1973); Endangered Species Conservation Act of 1969, Pub. L. No. 91-135, 83 Stat. 275 (repealed 1973) s 3; Robert J Scarpello, ‘Statutory Redundancy: Why Congress Should Overhaul the Endangered Species Act to Exclude Critical Habitat Designation Note’ (2002) 30 Boston College Environmental Affairs Law Review 399, 403–404.

⁷⁷¹ *Tennessee Valley Authority v Hill et al* (1978) 437 US 153, 180.

⁷⁷² Endangered Species Act 1973 § 1531(b).

⁷⁷³ *ibid* § 1533(a)(1).

⁷⁷⁴ *ibid* § 1533(a)(2).

⁷⁷⁵ *ibid* § 1533; Liebesman and Petersen (n 255) 9; 50 CFR § 424.01 (1997).

⁷⁷⁶ Endangered Species Act 1973 § 1533; Liebesman and Petersen (n 255) 9; 50 CFR § 424.01 (1997).

⁷⁷⁷ Endangered Species Act 1973 § 1532(16).

and wildlife are ‘any member of the animal kingdom, including without limitation any mammal, fish, bird (including any migratory, nonmigratory, or endangered bird for which protection is also afforded by treaty or other international agreement), amphibian, reptile, mollusk, crustacean, arthropod or other invertebrate, and includes any part, product, egg, or offspring thereof, or the dead body or parts thereof’.⁷⁷⁸ Plants are defined as ‘any member of the plant kingdom, including seeds, roots and other parts thereof’.⁷⁷⁹ The scope of the act is therefore broad – it covers all flora and fauna found in the territory of the United States, whether on shore or off shore and whether resident permanently or seasonally. The definitions are not considered to be particularly accurate from a biological or taxonomical perspective but they provide a starting point which acknowledges the scientific classification of species.⁷⁸⁰ The inclusion of both ‘subspecies’ and ‘distinct population segments’ allows for the inclusion of groups which do not meet the criteria of a species but still warrant protection. The definition of a ‘distinct population segment’ comes from a policy drafted by the National Marine Fisheries Service for the Pacific salmon in 1991 but which was applied far more broadly and was subsumed into a joint policy produced by the Fish and Wildlife Service and the National Marine Fisheries Service in 1996.⁷⁸¹ In order to count as a ‘distinct population segment’, a population must be discrete from the rest of the population of the same species, must be significant to the species as a whole and should require protection, as a population distinct from the rest of the species, as a result of its conservation status.⁷⁸² The advantage of allowing the listing of distinct population segments is that it enables protection of populations within particular ecosystems or geographical areas before there is widespread decline of the species across the entire country.⁷⁸³ Intervention at this stage is cheaper, easier and more effective.⁷⁸⁴ It also allows for the maintenance of species populations across more of their historical range rather than allowing populations in one part of the country to go unprotected merely because they remain abundant in another part of the country.⁷⁸⁵

⁷⁷⁸ *ibid* § 1532(8).

⁷⁷⁹ *ibid* § 1532(14).

⁷⁸⁰ Sullins (n 255) 7.

⁷⁸¹ Liebesman and Petersen (n 255) 1756; 56 Fed Reg 58612, 58618 (Nov, 20 1991); 61 Fed Reg 4721 (Feb 7, 1996).

⁷⁸² 61 Fed Reg 4721 (Feb 7, 1996).

⁷⁸³ *ibid* 4725.

⁷⁸⁴ *ibid*.

⁷⁸⁵ *ibid* 4723.

A species is considered to be endangered where it ‘is in danger of extinction throughout all or a significant portion of its range’ unless the species is a pest which would cause ‘an overwhelming and overriding threat to man’ if it were to be protected.⁷⁸⁶ A species can be listed as threatened if ‘is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range’.⁷⁸⁷ This wording has not been without controversy; precisely what is meant by ‘within the foreseeable future’ has led to many disputes as it is not defined in the act.⁷⁸⁸ In recent years, the decision to list species such as the polar bear and the bearded seal on the basis of climate change predictions have been challenged. In the case of the polar bear, the US Fish and Wildlife Service chose a time period of 45 years as the foreseeable future.⁷⁸⁹ In comparison, the National Marine Fisheries Service used data projecting 100 years into the future on relied on this data to list the bearded seal as a threatened species.⁷⁹⁰ In both cases, the court held that the agencies were entitled to select a time period which it considered to be the foreseeable future on a case by case basis as long as a rational or reasonable explanation is given for the time selected.⁷⁹¹ (The Alaska District Court in the bearded seal case, *Alaska Oil & Gas Association v Pritzker*, found that forecasting beyond 50 years into the future was too speculative but this was overruled by the Ninth Circuit on appeal, *Alaska Oil & Gas Association v Pritzker*.)⁷⁹²

Section 4 of the Endangered Species Act sets out the factors which the agencies must consider when deciding whether to list a species as endangered or threatened:

- ‘(A) the present or threatened destruction, modification, or curtailment of its habitat or range;
- (B) overutilization for commercial, recreational, scientific, or educational purposes;
- (C) disease or predation;

⁷⁸⁶ Endangered Species Act 1973 § 1532(6).

⁷⁸⁷ *ibid* § 1532(20).

⁷⁸⁸ *Safari Club International v Salazar (In re Polar Bear Endangered Species Act Listing & Section 4(d) Rule Litigation - MDL No. 1993)* (n 277); *Alaska Oil & Gas Association v Pritzker* 2014 US District LEXIS 101446 (District of Alaska, 2014).

⁷⁸⁹ *Center for Biological Diversity v Salazar (In re Polar Bear Endangered Species Act Listing)* (n 277) 93–96.

⁷⁹⁰ *Alaska Oil & Gas Association v Pritzker* (n 788) 37–53.

⁷⁹¹ *Center for Biological Diversity v Salazar (In re Polar Bear Endangered Species Act Listing)* (n 277) 95; *Safari Club International v Salazar (In re Polar Bear Endangered Species Act Listing & Section 4(d) Rule Litigation - MDL No. 1993)* (n 277) 15–16; *Alaska Oil and Gas Association v Pritzker* 840 F3d 671 (Ninth Circuit, 2016) 681–682.

⁷⁹² *Alaska Oil & Gas Association v Pritzker* (n 788); *Alaska Oil and Gas Association v Pritzker* (n 791).

- (D) the inadequacy of existing regulatory mechanisms; or
- (E) other natural or manmade factors affecting its continued existence.⁷⁹³

The determination made by the agencies in relation to a species must be made ‘solely on the basis of the best scientific and commercial data available to him after conducting a review of the status of the species’.⁷⁹⁴ The aim of the act is to ensure that species are listed based on biological factors with no consideration given to the economic impacts of listing the species; if a species requires protection then it should be protected, regardless of the cost that it will entail. Any scientific data which is relied upon must be subject to peer review by at least ‘three appropriate and independent specialists’ in order to ensure that the best scientific evidence is being used and that the views of experts in the field are incorporated into the decision making process.⁷⁹⁵ As well as the five listing factors, the agency must also take into account the species protection efforts of both States and foreign countries before reaching a decision to list a species although it is unlikely (albeit possible) that conservation efforts by another country would absolve the agencies from their duty to protect a species on their own territory.⁷⁹⁶ A species which is under threat in the United States should be listed even if there are healthy populations in other countries which adds a geopolitical aspect to the determination somewhat undermining the claim that all listings are done on a purely scientific basis.⁷⁹⁷ Once made, a listing will be reviewed every five years in order to determine whether a species should be removed from the list or have its status on the list amended.⁷⁹⁸

A.4.1.2. The Listing Procedure

The listing process can begin either on the initiative of the agencies or by way of a petition by an interested person, either an individual or, more commonly, an environmental organisation.⁷⁹⁹ The petitioner may request that a species be listed as endangered or threatened, that a previously listed species be delisted or that a species already listed as endangered or threatened have its status changed.⁸⁰⁰ Once a petition has been received the

⁷⁹³ Endangered Species Act 1973 § 1533(a)(1).

⁷⁹⁴ *ibid* § 1533(b)(1)(A).

⁷⁹⁵ Notice of Interagency Cooperative Policy on Peer Review, 59 Federal Register 34,270 (1994) 34270–71.

⁷⁹⁶ Endangered Species Act 1973 § 1533(b)(1)(A).

⁷⁹⁷ Liebesman and Petersen (n 255) 16.

⁷⁹⁸ Endangered Species Act 1973 § 1533(c)(2).

⁷⁹⁹ 5 USC § 553; Endangered Species Act 1973 § 1533(b)(3)(A).

⁸⁰⁰ Endangered Species Act 1973 § 1533(b)(3)(A).

relevant agency is required ‘to the maximum extent practicable’ to make an initial finding in relation to the species within 90 days.⁸⁰¹ This initial finding should indicate whether or not the petition ‘presents substantial scientific or commercial information indicating that the petitioned action may be warranted’ and thus whether a more detailed investigation should take place.⁸⁰²

A finding under the 90 day limit that listing (or delisting or a change in status) may be warranted and the publishing of such a decision in the Federal Register leads to the agency beginning a more detailed review of the petition to decide whether or not to list the species.⁸⁰³ The relevant agency will collate biological information about the species, in the form of a Species Status Assessment.⁸⁰⁴ The Species Status Assessment is a framework which ensures the collection of the best available scientific evidence about a species’ ecology, habitat, abundance, distribution and current conservation status.⁸⁰⁵ The assessment also considers any future threats and predicts how the species is likely to respond to those threats.⁸⁰⁶ Peer review of the scientific information is undertaken and, after a listing proposal is published, public comments are also sought.⁸⁰⁷ All of this information is used to decide whether or not to list the species, although there is no requirement for the agency to accept or follow every aspect of the scientific findings or the peer review as long as its decision is not ‘arbitrary and capricious’; the decision remains a predominantly political one.⁸⁰⁸ In order for the listing to be confirmed, a final listing rule will be published in the Federal Register and the name of the species will be added to the Endangered Species Lists which are published in the Code of Federal Regulations.⁸⁰⁹

The listing decision made by the agencies in relation to a species must be made ‘solely on the basis of the best scientific and commercial data available to him after conducting a review of the status of the species’.⁸¹⁰ This ensures that species are listed based on

⁸⁰¹ *ibid* § 1533(b)(3)(A).

⁸⁰² *ibid* § 1533(b)(3)(A).

⁸⁰³ *ibid* § 1533(b)(3)(B).

⁸⁰⁴ *Species Status Assessment* (n 492).

⁸⁰⁵ *ibid*.

⁸⁰⁶ *ibid*.

⁸⁰⁷ *ibid*.

⁸⁰⁸ Administrative Procedure Act § 706(2)(A).

⁸⁰⁹ *Species Status Assessment* (n 492); List of Endangered and Threatened Wildlife (50 CFR § 17.11); List of Endangered and Threatened Plants (50 CFR § 17.12).

⁸¹⁰ Endangered Species Act 1973 § 1533(b)(1)(A).

biological factors with no consideration given to the economic impacts of listing the species. Once made, a listing will be reviewed every five years in order to determine whether a species should be removed from the list or have its status on the list amended.⁸¹¹

A.4.1.3. Critical Habitat

Whenever a species is listed as endangered or threatened, the agency is also required to designate a critical habitat for that species.⁸¹² The designation can either be made at the same time as the final regulation listing the species or, if it not possible to determine the critical habitat at the time of listing, the designation can be made up to one year later.⁸¹³

A critical habitat is defined as being an ‘area occupied by the species’ which demonstrates the ‘physical or biological features’ which are ‘essential to the conservation of the species’ and which need ‘special management’ or ‘protection’.⁸¹⁴ It will not normally (although it might) cover the entire geographical area occupied by the species.⁸¹⁵ The critical habitat can also include areas outside the current area occupied by the species where that area is ‘essential for the conservation of the species’, for example, because of the need for habitat into which the population can expand as the species recovers.⁸¹⁶ The Ninth Circuit in *Alaska Oil and Gas Association v Jewell* held that the critical habitat of the polar bear in Arctic Alaska could include areas which were suitable for supporting polar bears even if there was no evidence of current use, saying ‘it makes little sense to limit [the act’s] protections to the habitat that the existing, threatened population currently uses’.⁸¹⁷

In choosing a critical habitat, the agency will rely ‘on the basis of the best scientific data available’.⁸¹⁸ However, unlike with the listing decision, the agency will also take into account the ‘economic impact’ of designating a critical habitat as well as any ‘impact on national security’ and ‘any other relevant impact’ of the proposed designation.⁸¹⁹ The agency is entitled to decide to exclude an area from a critical habitat designation where it

⁸¹¹ *ibid* § 1533(c)(2).

⁸¹² *ibid* § 1533(a)(3).

⁸¹³ *ibid* § 1533(b)(6)(C)(ii).

⁸¹⁴ *ibid* § 1532(5)(A)(i).

⁸¹⁵ *ibid* § 1532(5)(C).

⁸¹⁶ *Alaska Oil & Gas Association v Jewell* (n 8) 556.

⁸¹⁷ *ibid*.

⁸¹⁸ Endangered Species Act 1973 § 1533(b)(2).

⁸¹⁹ *ibid* § 1533(b)(2).

decides that the benefits of excluding the area would outweigh the benefits of including it within the designation.⁸²⁰ If the agency decides that excluding the area from the critical habitat designation would lead to the species becoming extinct then it is prevented from excluding that area from the designation.⁸²¹

A.4.1.4. Protections Under the Act

Listing a species as endangered or threatened and designating a critical habitat affords that species certain protections. Section 7 of the Endangered Species Act prohibits any federal agency from ‘authoriz[ing], fund[ing], or carry[ing] out’ any activity which is ‘likely to jeopardize the continued existence’ of a listed species or which could destroy or adversely modify the habitat of that species unless an exemption is granted.⁸²² Whenever there is proposed federal action or a permit application requiring federal approval for action which could have an impact on a listed species, a consultation process will be conducted in order to ascertain the impact of the activity on the listed species and to suggest any ‘reasonable and prudent alternatives’.⁸²³

Section 9 of the Endangered Species Act creates a number of prohibitions relating to listed species.⁸²⁴ For example, it makes it unlawful to import, export, possess, sell or ‘take’ an endangered species of fish or wildlife.⁸²⁵ Taking is defined as ‘to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct’ and therefore covers a wide range of behaviour which could affect a species.⁸²⁶ Threatened species are similarly protected by regulations issued under section 4(d).⁸²⁷ Section 4(d) allows the Secretary to prohibit for a threatened species any act which is prohibited for an endangered species under section 9.⁸²⁸

Alaska Natives living in Alaska and non-native residents of ‘an Alaskan native village’ are exempt from the prohibition on taking where the taking is for the purpose of subsistence.⁸²⁹

⁸²⁰ *ibid* § 1533(b)(2).

⁸²¹ *ibid* § 1533(b)(2).

⁸²² *ibid* §§ 1536(a)(2) and (h).

⁸²³ *ibid* § 1536.

⁸²⁴ *ibid* § 1538.

⁸²⁵ *ibid* §§ 1538(a)(1) and (a)(2)(A).

⁸²⁶ *ibid* § 1532(19).

⁸²⁷ *ibid* §§ 1538(a)(1)(G) and (a)(2)(E).

⁸²⁸ *ibid* § 1533(d); 50 CFR §§ 17.31 and 17.71.

⁸²⁹ Endangered Species Act 1973 § 1539(e).

They are also allowed to sell the ‘non-edible byproducts’ of any species taken for subsistence purposes where they have been ‘made into authentic native articles of handicrafts and clothing’.⁸³⁰ The act does not prescribe the methods of taking but does specify that it must be done in a way which does not waste the species caught.⁸³¹ This exception allows native Alaskans to practice their traditional culture in the same way as they have done for generations. The bowhead whale, for example, is listed as an endangered species but the Iñupiat people are allowed to hunt bowhead whales which, as one hunter describes, has enormous cultural importance:

‘The whale is more than food to us. It is the center of our life and culture. We are the People of the Whale. The taking and sharing of the whale is our Eucharist and Passover. The whaling festival is our Easter and Christmas, the Arctic celebrations of the mysteries of life.’⁸³²

Section 10 allows the Secretary to issue permits to conduct activity which would otherwise be unlawful under section 9 of the Endangered Species Act.⁸³³ Permits may be granted for ‘scientific purposes’ or to permit acts which will ‘enhance the survival or propagation of the affected species’.⁸³⁴ Permits may also be granted for lawful activities which may result in the taking of a species, where the taking is merely incidental to the activity.⁸³⁵ For example, BP Exploration (Alaska) Inc has been granted an incidental take permit to unintentionally take marine mammals incidental to its offshore oil and gas activities in the Beaufort Sea in Arctic Alaska.⁸³⁶ An applicant for an incidental take permit must prepare a Habitat Conservation Plan which is a legally binding agreement with the Secretary to carry out certain actions which will ‘minimize and mitigate’ the impact of the incidental taking

⁸³⁰ *ibid* § 1539(e).

⁸³¹ *ibid* § 1539(e).

⁸³² Michael L Chiropolos, ‘Inupiat Subsistence and the Bowhead Whale: Can Indigenous Hunting Cultures Coexist with Endangered Animal Species’ (1994) 5 *Colorado Journal of International Environmental Law and Policy* 213, 216; Eben Hopson, ‘The People of the Whale: A Fight for Survival’ (1979) 4 *Indian Affairs* 1, 7–8.

⁸³³ Endangered Species Act 1973 § 1539(a).

⁸³⁴ *ibid* § 1539(a)(1)(A).

⁸³⁵ *ibid* § 1539(a)(1)(B).

⁸³⁶ NOAA Fisheries, ‘Incidental Take Authorizations for Oil and Gas’ (21 June 2018) </national/marine-mammal-protection/incidental-take-authorizations-oil-and-gas> accessed 22 June 2018.

on the species.⁸³⁷ A violation of the Habitat Conservation Plan would lead to any taking being considered to be unlawful under section 9 of the Endangered Species Act.⁸³⁸

As well as preventing actions which could further harm the listed species, the act makes provision for the preparation of a recovery plan to ‘promote the conservation of the species’.⁸³⁹ The recovery plan will include any ‘management actions’ specific to the site necessary for conserving the species and will identify the measurable criteria which would demonstrate that the species could be removed from the list of endangered and threatened species.⁸⁴⁰ The plan will also estimate the time it will take and how much it will cost to implement.⁸⁴¹

Violations of section 9 of the Endangered Species Act are punishable by both civil penalties (of up to \$25,000 for a knowing violation) and criminal charges (leading, on conviction, to a fine of up to \$50,000, or one year in prison, or both).⁸⁴² Any plant or animal which was taken or otherwise used in breach of the act can be forfeited, along with any equipment used in the violation of the act.⁸⁴³

A.4.1.5. The Effect of the Act

As of 8 July 2019, there were 1,663 species (and distinct populations) listed under the Endangered Species Act of which 1,275 were listed as endangered.⁸⁴⁴ A little over half of the species (944) are plants, predominantly flowering plants.⁸⁴⁵ In Alaska, there are 14 species which have been listed as endangered, ranging from the blue whale to the Aleutian shield fern.⁸⁴⁶ Arctic species include the blue whale, humpback whale, fin whale and

⁸³⁷ Endangered Species Act 1973 § 1539(a)(2).

⁸³⁸ *ibid* § 1538, 1539.

⁸³⁹ *ibid* § 1533(f).

⁸⁴⁰ *ibid* § 1533(f).

⁸⁴¹ *ibid* § 1533(f).

⁸⁴² *ibid* § 1540.

⁸⁴³ *ibid* § 1540(e)(4).

⁸⁴⁴ ‘Listed Species Summary’ (*US Fish and Wildlife Service*, 8 July 2019)

<<https://ecos.fws.gov/ecp0/reports/box-score-report>> accessed 8 July 2019.

⁸⁴⁵ *ibid*.

⁸⁴⁶ List of Endangered and Threatened Wildlife (50 CFR § 17.11); List of Endangered and Threatened Plants (50 CFR § 17.12); ‘Endangered, Threatened, and Candidate Species Under NMFS’ Authority in Alaska | NOAA Fisheries Alaska Regional Office’ <<https://alaskafisheries.noaa.gov/pr/esa-species-list>> accessed 11 May 2018; ‘Alaska Region - Endangered Species’ <<https://www.fws.gov/alaska/fisheries/endangered/listing.htm>> accessed 11 May 2018.

bowhead whale.⁸⁴⁷ A further 11 species are listed as threatened including Arctic species such as the polar bear, the bearded seal, the ringed seal and the spectacled eider.⁸⁴⁸ Of all of these species, the only ones with critical habitat listed in the Arctic are the polar bear, the Steller's eider and the spectacled eider.⁸⁴⁹ Some of the other listed species, for example, the bearded seal, are found in the Arctic but do not have a critical habitat designated at this time or their designated critical habitat is located further south.⁸⁵⁰ In 2014, a critical habitat was proposed for the threatened ringed seal.⁸⁵¹ The critical habitat would have covered an area of the Arctic Ocean over 350,000 square miles which would have been the biggest critical habitat ever designated.⁸⁵² However, no final rule was promulgated and in June 2019, the Center for Biological Diversity sued the US government to obtain a declaration that a critical habitat must be designated for both the ringed seal and the bearded seal.⁸⁵³

While prosecutions under the Endangered Species Act are possible, there appear to have been very few which have taken place. The Environmental Protection Agency's Summary of Criminal Prosecutions lists no prosecutions under the act, or the Migratory Birds Treaty Act, for Alaska over the past twenty years.⁸⁵⁴

A.4.2. Endangered Species Protection in State Law

As well as the federal provisions for endangered species, Alaska has enacted state laws to protect endangered species under title 16 of the Alaska State Code, the stated purpose of which is to ensure the 'continued conservation, protection, restoration, and propagation' of fish and wildlife which are currently or may become threatened with extinction'.⁸⁵⁵ Unlike with the federal listing, Alaska only lists endangered species and does not designate

⁸⁴⁷ 'Endangered, Threatened, and Candidate Species Under NMFS' Authority in Alaska | NOAA Fisheries Alaska Regional Office' (n 846); 'Alaska Region - Endangered Species' (n 846).

⁸⁴⁸ 'Endangered, Threatened, and Candidate Species Under NMFS' Authority in Alaska | NOAA Fisheries Alaska Regional Office' (n 846); 'Alaska Region - Endangered Species' (n 846); 'Ringed, Ribbon, Spotted, and Bearded Ice Seals | NOAA Fisheries Alaska Regional Office' <<https://alaskafisheries.noaa.gov/pr/ice-seals>> accessed 11 May 2018.

⁸⁴⁹ 'Federal Endangered Species in Alaska' (*Alaska Department of Fish and Game*) <<http://www.adfg.alaska.gov/index.cfm?adfg=specialstatus.fedendangered>> accessed 10 May 2018.

⁸⁵⁰ 'Bearded Seal Range Map' (*Alaska Department of Fish and Game*) <<http://www.adfg.alaska.gov/index.cfm?adfg=beardedseal.rangemap>> accessed 19 May 2018.

⁸⁵¹ Designation of Critical Habitat for the Arctic Ringed Seal, 79 Federal Register 73,010 (9 December 2014).

⁸⁵² *ibid.*

⁸⁵³ *Center for Biological Diversity v Ross et al* (2019).

⁸⁵⁴ OECA US EPA, 'Summary of Criminal Prosecutions' <https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm> accessed 8 July 2019.

⁸⁵⁵ Alaska State Code, AS 16.20.180.

threatened species. It defines an endangered species as one which ‘numbers have decreased to such an extent as to indicate that its continued existence is threatened’.⁸⁵⁶ The Commissioner of Fish and Game is tasked with deciding whether or not a species meets this definition and, in doing so, he will consider the habitat, including any destruction, modification or curtailment, whether the species has been overused for the purposes of commerce or sport, whether disease or predation has had an impact on the population and whether there are any other factors, whether natural or not, which could affect the existence of the species.⁸⁵⁷

There are only five species listed as endangered species by the state of Alaska, all of which are also listed as endangered species under the federal Endangered Species Act.⁸⁵⁸ There are three marine mammals, namely the blue whale, the humpback whale and the north Pacific right whale, and two species of birds, the Eskimo curlew and the short-tailed albatross.⁸⁵⁹ Of these, only the Eskimo curlew is found in the Arctic.⁸⁶⁰ Once a species has been listed, it become illegal to harvest, capture or propagate that species without a permit.⁸⁶¹ Permits will only be granted for educational or scientific purposes or for breeding a species in captivity.⁸⁶² A separate section of the legislation makes it misdemeanour to ‘harvest, injure, import, export, or capture’ a listed species.⁸⁶³ The penalty for doing so is a fine of up to \$25,000.⁸⁶⁴

As well as protecting the listed species, the act requires the Alaska Commissioner of Fish and Game and the Alaska Commissioner of Natural Resources to ‘take measures to preserve the natural habitat’ of any species which has been listed as being threatened with extinction.⁸⁶⁵

⁸⁵⁶ *ibid*, AS 16.20.190(a).

⁸⁵⁷ *ibid*, AS 16.20.190(a).

⁸⁵⁸ ‘State of Alaska Special Status Listing: Endangered Species’ (*Alaska Department of Fish and Game*) <<http://www.adfg.alaska.gov/index.cfm?adfg=specialstatus.akendangered>> accessed 14 June 2018.

⁸⁵⁹ *ibid*.

⁸⁶⁰ *ibid*.

⁸⁶¹ Alaska State Code, AS 16.20.195.

⁸⁶² *ibid*, AS 16.20.195.

⁸⁶³ *ibid*, AS 16.20.200.

⁸⁶⁴ *ibid*, AS 12.55.035, 11.81.250.

⁸⁶⁵ *ibid*, AS 16.20.185.

Alongside the list of endangered species, the Alaska Department of Fish and Game has published a Wildlife Action Plan which identifies the ‘species of greatest conservation need’ and commits to protect those species in order to prevent them from reaching the point at which they will need state or federal protection as endangered species.⁸⁶⁶ Examples of species included in the plan which are found in the Arctic are the Arctic ground squirrel, the singing vole, the Arctic fox and the Pacific walrus.⁸⁶⁷

A.4.3. Marine Mammal Protection Act of 1972

In 1972, at the height of Congress’ commitment to environmental protection, Congress passed the Marine Mammal Protection Act.⁸⁶⁸ The act acknowledged that there were a number of marine mammals which were ‘in danger of extinction or depletion as a result of man’s activities’. The purpose of the act was therefore to ensure that the marine species at risk did not deplete to the extent that they would ‘cease to be a significant functioning element in the ecosystem of which they are a part’.⁸⁶⁹ The aim was to ensure that all marine species maintained an ‘optimal sustainable population’ or that populations were rebuilt to the point at which they became sustainable.⁸⁷⁰ The act also aimed to ensure that the essential habitats of the marine mammals were protected, particularly the habitats in which mating and raising of young occur.⁸⁷¹ In a similar way to the Endangered Species Act, authority under the act is given to the Secretary of Commerce and the Secretary of the Interior, each in their own sphere of expertise. Authority is further delegated to the US Fish and Wildlife Service and the National Oceanic and Atmospheric Administration.

A marine mammal is defined by the act as one which either is ‘morphologically adapted to the marine environment’ or one which ‘primarily inhabits the marine environment’.⁸⁷² Examples of the first type of mammal include sea otters, whales and seals.⁸⁷³ The act specifically lists the polar bear as an example of a species which is not morphologically adapted to the marine environment but which instead inhabits it.⁸⁷⁴ The act covers all parts

⁸⁶⁶ ‘Alaska Wildlife Action Plan 2015’ (n 469).

⁸⁶⁷ *ibid*, appendix B.

⁸⁶⁸ Marine Mammal Protection Act of 1972,.

⁸⁶⁹ *ibid* § 1361(1),(2).

⁸⁷⁰ *ibid* § 1361(2).

⁸⁷¹ *ibid* § 1361(2).

⁸⁷² *ibid* § 1362(6).

⁸⁷³ *ibid* § 1362(6).

⁸⁷⁴ *ibid* § 1362(6).

of a marine mammal including its skin and fur, whether prepared or not.⁸⁷⁵ One of the main differences between the scope of the Endangered Species Act and the Marine Mammal Protection Act (aside from the geographical extent) is that the Marine Mammal Protection Act applies to, and protects, all marine mammals, regardless of their depletion status whereas the Endangered Species Act only protected those species which are specifically listed under the act. In the Arctic, the key species protected by the act are the polar bear, the Pacific walrus, the harbour porpoise, the ringed, ribbon, spotted and bearded seals and the bowhead, gray and beluga whales.⁸⁷⁶

The act makes it illegal to take a marine mammal in the United States or its jurisdiction without a permit or for a person or ship subject to the laws of the United States to take a marine mammal on the high seas.⁸⁷⁷ It defines the concept of taking slightly differently to the Endangered Species Act but the outcome is similar. Taking is defined as to ‘harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal’.⁸⁷⁸ Harassment is defined to include pursuing, tormenting or annoying a species in the wild which has the potential either to cause injury or to disrupt natural behaviour patterns such as mating, feeding, breeding and sheltering.⁸⁷⁹ The act also makes it illegal to import any marine mammal or part of a marine mammal into the United States.⁸⁸⁰ It is possible, in certain circumstances, to obtain a permit to take or to import a marine mammal in certain situations, such as for scientific research, in order to enhance the recovery of a species, for public display and for incidental taking during commercial fishing.⁸⁸¹ However, if a species is listed as ‘depleted’ then it is only possible to obtain a permit to take or to import that species for scientific research, in order to photograph the species (this would most likely cover ‘harassing’ the species rather than killing it), or in order to promote the survival or recovery of the species.⁸⁸² A species will be listed as depleted if the Secretary of Commerce or of the Interior list, or a State to which authority to make such a decision has been transferred, considers that the species has fallen ‘below its optimum sustainable

⁸⁷⁵ *ibid* § 1362(6).

⁸⁷⁶ NOAA Fisheries Alaska Regional Office, ‘Species Information’ <<https://alaskafisheries.noaa.gov/pr/species>> accessed 12 June 2018; Moore and Demaster (n 764).

⁸⁷⁷ Marine Mammal Protection Act of 1972, §§ 1371(a), 1372(a).

⁸⁷⁸ *ibid* § 1362(13).

⁸⁷⁹ *ibid* § 1362(18).

⁸⁸⁰ *ibid* § 1371(a).

⁸⁸¹ *ibid* §§ 1371(a)(1), (2).

⁸⁸² *ibid* § 1371(a)(3)(B).

population’.⁸⁸³ It will also be listed as depleted if it has been listed as a threatened or endangered species under the Endangered Species Act.⁸⁸⁴ The Secretary of Commerce or of the Interior may also waive the requirement to obtain a permit for taking or importing a particular marine mammal if, ‘on the basis of the best scientific evidence available’, the regime is not required to protect that species.⁸⁸⁵

The Marine Mammal Protection Act made it possible to get a permit to import a polar bear which had been hunted for sport in Canada but once the polar bear had been listed as a threatened species under the Endangered Species Act, this was stopped.⁸⁸⁶ A number of hunters challenged the ban, mostly on procedural grounds, but were unsuccessful and it therefore remains illegal to import polar bear hides hunted in Canada into the United States.⁸⁸⁷

There are exceptions for Alaska Natives which allow for the taking of a marine mammal for subsistence purposes or in order to create traditional native handicrafts involving, for example, weaving, carving, beading or painting.⁸⁸⁸ The Alaska Native person must be an Indian, Aleut or Eskimo resident on the North Pacific or Arctic coasts of Alaska in order to benefit from the exception.⁸⁸⁹ Any edible portion of a marine mammal taken for the purposes of handicrafts can only be sold in native communities in Alaska.⁸⁹⁰ Alaska Natives making use of this exemption are expected to do so in a manner that is not wasteful.⁸⁹¹ There are further exceptions allowing the taking of a marine mammal where that mammal is threatening the life of a person or where a marine mammal is at imminent risk of harm.⁸⁹² Where possible, the aim is to ensure the safe release of the animal.⁸⁹³ In either case the Secretary must be informed of the taking within 48 hours and may seize the body of the mammal harmed.⁸⁹⁴

⁸⁸³ *ibid* § 1362(1).

⁸⁸⁴ *ibid* § 1362(1).

⁸⁸⁵ *ibid* § 1371(a)(3)(A).

⁸⁸⁶ *ibid* §§ 1371(a)(1), (a)(3)(B).

⁸⁸⁷ *Polar Bear Endangered Species Act Listing & § 4 Rule Litigation v Salazar* 627 F Supp 2d 16 (DC Circuit, 2009).

⁸⁸⁸ Marine Mammal Protection Act of 1972, §1371(b).

⁸⁸⁹ *ibid* §1371(b).

⁸⁹⁰ *ibid* §1371(b).

⁸⁹¹ *ibid* §1371(b).

⁸⁹² *ibid* §1371(c),(d).

⁸⁹³ *ibid* §1371(d).

⁸⁹⁴ *ibid* §1371(c),(d).

A breach of the Marine Mammal Protection Act is punishable with either a civil penalty or by a criminal penalty.⁸⁹⁵ The civil penalty is a fine of up to \$10,000 imposed by the Secretary.⁸⁹⁶ The guilty party must be notified of the intended penalty and be given the opportunity of a hearing.⁸⁹⁷ Each incidence of a taking is considered to be a separate offence and multiple penalties can be imposed for repeated behaviour contravening the act.⁸⁹⁸ In the case, however, of an attempted import of a marine mammal for personal use, the Secretary can, instead, give the person the opportunity to leave the specimen at the border instead of facing a civil penalty.⁸⁹⁹ Where the breach of the act was made knowingly, the party may face prosecution.⁹⁰⁰ On conviction, the criminal penalty is a fine of up to £20,000 for each violation, a prison sentence of up to one year or both.⁹⁰¹ Vessels which are used to take a marine mammal may be subject to fines of up to \$25,000 and have their cargo seized.⁹⁰² The money collected in fines by the US Fish and Wildlife Service for marine mammals under their authority is used specifically for programmes which promote the ‘protection and recovery of manatees, polar bears, sea otters, and walruses’.⁹⁰³

A.4.3.1. Polar Bears

As a mammal which ‘primarily inhabits the marine environment’, the polar bear is protected from taking without a permit under the Marine Mammal Protection Act as a direct result of it being listed as a threatened species under the Endangered Species Act.⁹⁰⁴ There are, however, exemptions under both acts which allow Alaska natives to hunt polar bears for the purposes of subsistence.⁹⁰⁵ This right, however, is not unlimited. The United States and Russia have entered into a treaty which imposes additional protections for the Alaska-Chukotka polar bear population.⁹⁰⁶ Under the treaty, both Russia and the United States agree an annual limit for the number of polar bears which can be taken for subsistence

⁸⁹⁵ *ibid* §1375.

⁸⁹⁶ *ibid* §1375(a)(1).

⁸⁹⁷ *ibid* §1375(a)(1).

⁸⁹⁸ *ibid* §1375(a)(1).

⁸⁹⁹ *ibid* §1375(a)(2).

⁹⁰⁰ *ibid* §1375(b).

⁹⁰¹ *ibid* §1375(b).

⁹⁰² *ibid* §1376.

⁹⁰³ Department of the Interior and Related Agencies Appropriations Act of 2000, 16 USC §1375(a).

⁹⁰⁴ Marine Mammal Protection Act of 1972, §1362(6); Endangered Species Act 1973 §1538.

⁹⁰⁵ Marine Mammal Protection Act of 1972, §1371(b); Endangered Species Act 1973 §1539(e).

⁹⁰⁶ Agreement Between the Government of the United States and the Government of the Russian Federation on the Conservation and Management of the Alaska-Chukotka Polar Bear Population 2000.

purposes each year in the west of Alaska and in Russia. The current limit is 58 bears, split evenly between the US and Russia, which means that only 29 polar bears (of which only 9 may be female) can be taken by Alaska natives for subsistence purposes each year.⁹⁰⁷ It also makes it unlawful to import, sell, barter or exchange a polar bear which was taken in violation of the treaty.⁹⁰⁸ A similar voluntary agreement was entered into for the east of Alaska and western Canada between the Inuvialuit and Inupiat people which covers the eastern villages of Wainwright, Utqiagvik, Nuiqsut and Kaktovik.⁹⁰⁹ This agreement limits the number of polar bears which can be taken for subsistence hunting to 70 polar bears, with 35 for the United States.⁹¹⁰ The parties also agreed not to hunt female polar bears with cubs.⁹¹¹

A.4.4. Migratory Birds Treaty Act of 1918

One of the earliest pieces of wildlife protection legislation in the United States is the Migratory Birds Treaty Act of 1918 which protects birds which are native to the United States.⁹¹² The act was passed in 1918 following a treaty signed in 1916 between Great Britain (acting on behalf of Canada) and the United States.⁹¹³ The two countries entered into the treaty because they were ‘desirous of saving from indiscriminate slaughter and of insuring the preservation of such migratory birds as are either useful to man or are harmless’.⁹¹⁴ The treaty created a uniform system of protection for migratory birds across Canada and the United States on the basis that birds migrate between the two countries.⁹¹⁵ The United States has since entered into similar agreements with Mexico, Japan and the Soviet Union (now Russia).⁹¹⁶

⁹⁰⁷ *ibid*; United States - Russia Polar Bear Commission, Maintenance of Annual Taking Limit for the Alaska-Chukotka Polar Bear Population, 82 Federal Register 17,445 (11 April 2017).

⁹⁰⁸ Agreement Between the Government of the United States and the Government of the Russian Federation on the Conservation and Management of the Alaska-Chukotka Polar Bear Population 2000, 16 USC §1423a.

⁹⁰⁹ Inuvialuit-Inupiat Polar Bear Management Agreement for the Southern Beaufort Sea 1988 (revised 2011).

⁹¹⁰ *ibid*.

⁹¹¹ *ibid*.

⁹¹² Migratory Birds Treaty Act of 1918, 16 USC chp 7(II).

⁹¹³ Convention Between the United States and Great Britain for the Protection of Migratory Birds 1916.

⁹¹⁴ *ibid*.

⁹¹⁵ *ibid*.

⁹¹⁶ Migratory Birds Treaty Act of 1918, 16 USC §703.

The act covers birds which are native to the United States as well as any part of those birds or their nests or eggs.⁹¹⁷ A full list of the species covered is published in the Code of Federal Regulations.⁹¹⁸ In the Arctic, the act covers a large number of species which migrate north during the summer. In the Arctic National Wildlife Refuge, for example, 201 different species of birds have been recorded as present in the refuge.⁹¹⁹ Examples of species protected in the Arctic are the snowy owl, the Arctic tern and the snow bunting.⁹²⁰

The act makes it unlawful to ‘by any means or in any manner, pursue, hunt, take, capture, kill’ a migratory bird or to attempt to do so.⁹²¹ The act also makes it unlawful to possess, sell, transport, barter or exchange a migratory bird or to carry out other similar activities as well as to export a bird taken unlawfully or to import such a bird from Canada.⁹²² The Secretary of the Interior is authorised to allow hunting, killing, possessing, selling, transporting and other activities relating to migratory birds.⁹²³ Permission to undertake such activities may be granted either by permits or generally, often with geographical limits or limits as to the season in which a bird can be hunted.⁹²⁴ Before reaching a decision that a bird can be hunted, killed, captured or taken, the Secretary must take into account, inter alia, the abundance of the population, breeding habits, distribution, migratory lines and the economic value of the species so as to prevent species depletion.⁹²⁵ A recent memorandum from the Department of the Interior makes clear that, despite an earlier memorandum to the contrary, the department does not believe that the Migratory Birds Treaty Act prohibits the killing of migratory birds when it is incidental to an otherwise lawful act.⁹²⁶ Incidental taking therefore does not require a permit.⁹²⁷

⁹¹⁷ *ibid* §703(b)(1).

⁹¹⁸ 50 CFR § 10.13.

⁹¹⁹ US Fish and Wildlife Service, ‘Bird List - Arctic’ <<https://www.fws.gov/refuge/arctic/birdlist.html>> accessed 12 June 2018.

⁹²⁰ *ibid*; US Fish and Wildlife Service, ‘Migratory Bird Program’ <<https://www.fws.gov/birds/management/managed-species/migratory-bird-treaty-act-protected-species.php#>> accessed 12 June 2018.

⁹²¹ Migratory Birds Treaty Act of 1918, 16 USC §703(a).

⁹²² *ibid* §703(a), 705.

⁹²³ *ibid* §704(a).

⁹²⁴ *ibid* §704, 50 CFR Part 20 & Part 21.

⁹²⁵ *ibid* §704(a).

⁹²⁶ Daniel H Jorjani, ‘Memorandum on the Migratory Bird Treaty Act’.

⁹²⁷ *ibid*.

The penalty for a violation of the act is, on conviction, a fine of up to \$15,000, six months in prison, or both.⁹²⁸ This penalty can be imposed on individuals as well as corporate bodies.⁹²⁹ If a person knowingly takes a bird with the intention of selling it, the penalty is a fine of up to \$2,000 or a prison sentence of up to two years or both and any equipment used in committing the offence can be seized and forfeited.⁹³⁰

There is an exception under the act to allow the Secretary of the Interior to issue regulations allowing indigenous people in Alaska to hunt birds and collect eggs for food and other traditional needs.⁹³¹ The Secretary can set hunting seasons in order to ensure that the population of each species is maintained.⁹³² The relevant regulations have been published in the Code of Federal Regulations and allow for a person who is a permanent resident of a village ‘within a subsistence harvest area’, which includes the villages in the Arctic, to harvest migratory birds and to collect eggs during the permitted seasons in the spring and summer.⁹³³ The list of birds to which the regulations apply and the hunting seasons for each area are published in the Code of Federal Regulations.⁹³⁴ The list includes species such as the King Eider and the tundra swan.⁹³⁵ Birds may only be harvested for consumption by humans or for other subsistence needs such as the ‘cultural, social, and economic elements of subsistence way of life’.⁹³⁶ All taking must be conducted in such a way as to be reducing waste.⁹³⁷ Non-residents may only receive birds or parts of birds taken by an eligible person if they hold a permit to allow them to do so.⁹³⁸

A.4.5. Hunting and Trapping

Whilst the acts already considered in this chapter make it unlawful to take an endangered or threatened species, or a marine mammal or migratory bird without a permit or for reasons of subsistence, and whilst signification portions of Alaska are designated as protected

⁹²⁸ Migratory Birds Treaty Act of 1918, 16 USC §707(a).

⁹²⁹ *ibid* §707(a).

⁹³⁰ *ibid* §707(b),(d).

⁹³¹ *ibid* §712(1).

⁹³² *ibid* §712(1).

⁹³³ 50 CFR §92.5.

⁹³⁴ *ibid* §92.22, 92.31; Migratory Bird Subsistence Harvest in Alaska; Harvest Regulations for Migratory Birds in Alaska During the 2018 Season, 83 Federal Register 13685 (30 March 2018).

⁹³⁵ 50 CFR §92.22.

⁹³⁶ *ibid* §92.5(c), §92.6.

⁹³⁷ *ibid* §92.6(a).

⁹³⁸ *ibid* §92.6(b).

habitat for species, Alaskan state laws do allow for hunting of many big game species, including black bear, brown bear, caribou, moose and muskox.⁹³⁹ The regulations are technical and differ depending on the part of the state on which the hunt takes place, the residence status of the hunter, the time of year and the species being hunted. In general, though, it is unlawful to take part in hunting without a licence authorising a person to hunt and, where necessary, a permit, ticket or tag authorising the hunting of the specific species.⁹⁴⁰

The state is split into Game Management Units, of which the whole of unit 26 and parts of units 23, 24 and 25 are located in the Arctic.⁹⁴¹ The Game Management Units are used as a means of regulating hunting throughout the state while still being able to differentiate the rules. This is important in a state as large as Alaska where the climate and landscape vary hugely resulting in different breeding seasons as well as the existence of different species throughout the state. As an example of the way in which the regulations change depending on the unit, it is lawful to trap beaver at any time of the year, without limit in Game Management Unit 23 (in the south west of the Arctic) but unlawful to trap beaver at any time in Unit 26 (on the Arctic coastal plain).⁹⁴²

Alaska residents, who have been resident in the state for at least twelve months, intend for their stay to be indefinite and who are physically present in Alaska may apply for a resident hunting licence.⁹⁴³ Licences must generally be purchased but are free or reduced in price for older people, disabled people and families on low incomes.⁹⁴⁴ Under 18s are allowed to hunt, with no lower age limit, but are not required to hold a licence; under 10s are not allowed their own big game bag limit so anything which they hunt is from the allocation of their accompanying adult.⁹⁴⁵ There are a number of different types of licence, which allow for hunting, trapping, sport fishing and waterfowl hunting, or a combination of these activities.⁹⁴⁶ Where a person is not eligible for a resident hunting licence, they may be

⁹³⁹ Alaska Administrative Code, AAC 5.78-92.

⁹⁴⁰ Alaska State Code, AS 16.05.330.

⁹⁴¹ 'Alaska Hunting Maps by Game Management Unit' (*Alaska Department of Fish and Game*) <<http://www.adfg.alaska.gov/index.cfm?adfg=huntingmaps.bygmu>> accessed 14 June 2018.

⁹⁴² Alaska Administrative Code, AAC 5.84.270.

⁹⁴³ Alaska Hunting Regulations 2018-2019 9.

⁹⁴⁴ *ibid.*

⁹⁴⁵ *ibid* 9, 13.

⁹⁴⁶ *ibid* 9.

eligible for a non-resident hunting licence if they are a US citizen or a non-resident alien hunting licence if they are a citizen of any other country.⁹⁴⁷ Non-resident licences are available for hunting, hunting small game and trapping but non-resident aliens may only purchase a hunting licence and are not allowed to trap.⁹⁴⁸ While resident hunters may hunt for big game on their own, non-resident hunters are required to be accompanied.⁹⁴⁹ For those who are not aliens, and are seeking to hunt sheep, mountain goats and brown (grizzly) bears, this may be either a licenced guide or a close relative.⁹⁵⁰ Non-resident aliens must always be accompanied by a licenced guide for the hunting of all big game species.⁹⁵¹ Unlike in some of the other countries included in this study, Alaskan hunters do not necessarily need to prove their ability to handle a weapon. Basic hunter education is available, but it is only compulsory for those hunting in a small number of areas, mostly around Anchorage, in certain Game Management Units, but not the Arctic ones, for those born after 1 January 1986, and for crossbow hunting.⁹⁵² As well as a licence, hunters in some situations need to purchase a locking tag for the species which they are hunting. Resident hunters only need locking tags for brown bear and muskox in some areas, none of which are in the Arctic.⁹⁵³ Non-resident hunters must purchase, at prices up to \$3,000, locking tags for all big game including bears, caribou, Dall sheep, wolverine and moose.⁹⁵⁴ The locking tag, where required, must be affixed to the animal as soon as it has been killed.⁹⁵⁵ Finally, for some species, the hide or skull must be presented to a representative of the Alaska Department of Fish and Game, usually within 30 days, who will examine the catch and place a seal on it to demonstrate that it was lawfully hunted.⁹⁵⁶

There are a number of different types of hunts which take place in Alaska, with each type of hunt having its own requirements above and beyond the need to hold a hunting licence. The most open hunting is allowed during the general season hunt.⁹⁵⁷ During the general season hunt, a harvest ticket is required for the hunting of caribou, moose, deer and sheep,

⁹⁴⁷ *ibid* 10.

⁹⁴⁸ *ibid*; Alaska Trapping Regulations 2018-2019.

⁹⁴⁹ Alaska Hunting Regulations 2018-2019 10.

⁹⁵⁰ *ibid*.

⁹⁵¹ *ibid*.

⁹⁵² *ibid* 13, 19.

⁹⁵³ *ibid* 9.

⁹⁵⁴ *ibid* 10.

⁹⁵⁵ *ibid*.

⁹⁵⁶ *ibid* 16.

⁹⁵⁷ *ibid* 14.

and for some areas, although not the Arctic, for black bear as well.⁹⁵⁸ Harvest tickets are available for free but one is required for each animal to be hunted.⁹⁵⁹ The tickets are validated as soon as possible after an animal is killed by indicating the date and, at the end of the season, a report is made to the Alaska Department of Fish and Game, even if no animal was captured.⁹⁶⁰

General season hunting occurs where there is no concern about the sustainability of the population of the species being hunted. Where demand would exceed the sustainable limit then permit hunting may be allowed.⁹⁶¹ By limiting the number of hunters, the permit system helps to ensure that the population of the species is not threatened.⁹⁶² Some permits are issued on a lottery system while others require registration or are allocated based on subsistence need.⁹⁶³ For permit hunts, hunters require a hunting licence and a permit to be allowed to hunt.⁹⁶⁴ In addition to this, the sustainable limit of a population may be identified and when that number of animals has been killed, the hunting season may be closed early.⁹⁶⁵ There are also Community Subsistence Harvest Hunts where a whole community is allocated a total limit which can be shared between them.⁹⁶⁶ Just like with a hunting ticket, a report must be made of the number of animals hunted under a permit.⁹⁶⁷

Another way in which the population of a species can be conserved is to introduce a bag limit which places a quota on the number of animals each hunter may take during the hunting year (1 July – 30 June).⁹⁶⁸ They are different depending on the type of hunting licence held. The limits are decided annually and published in the Alaska Administrative Code and the Hunting Regulations.⁹⁶⁹ The bag limits apply across the state but differ in each of the different Game Management Units; a hunter may only take an animal in a specific Game Management Unit if he or she has not already taken the maximum number

⁹⁵⁸ *ibid.*

⁹⁵⁹ *ibid.*

⁹⁶⁰ *ibid.*

⁹⁶¹ *ibid* 15.

⁹⁶² *ibid.*

⁹⁶³ *ibid.*

⁹⁶⁴ *ibid.*

⁹⁶⁵ *ibid.*

⁹⁶⁶ *ibid.*

⁹⁶⁷ *ibid.*

⁹⁶⁸ *ibid* 16.

⁹⁶⁹ Alaska Administrative Code, 5 AAC 78-92; Alaska Hunting Regulations 2018-2019.

allowed in that unit, regardless of where in the state they were taken.⁹⁷⁰ Alongside the bag limits, an annual decision is made regarding hunting seasons for different species in each of the Game Management Units and these are published alongside the bag limits.⁹⁷¹ Hunting seasons are the times of the year during which species may be hunted, and they are strictly applied although they vary quite broadly across the state. Most of the hunting seasons in the Arctic occur during late summer and fall, often August and September.⁹⁷² Some seasons are very short, such as the season for moose which can be as short as ten or fifteen days during September, whereas for other species the seasons are much longer, some, such as for the black bear, apply all year round.⁹⁷³

For an example of the way in which the rules work in practice, on the Arctic Slope (Game Management Unit 26), both residents and non-residents who hold a hunting licence are allowed to hunt up to three black bears each regulatory year with no closed season.⁹⁷⁴ However, for brown (grizzly) bear, the rules in unit 26 are more complex. In the west and far east of the area, up to one bear is allowed per hunter per year but in the central part of the area, around the Dalton Highway, there is a limit of one bear but hunters must either have a permit which, for part of the year is allocated by registration (first come first served) and part of the year is allocated by drawing lots.⁹⁷⁵ Around Kotzebue, to the south, residents may hunt two brown bears per year with no permit restrictions and both residents and non-residents may take one brown bear per year in the Upper Yukon without permit restrictions.⁹⁷⁶ For caribou, the bag limit for residents ranges from one caribou per year to a maximum of five caribou a day in different parts of the Arctic, some through permit hunting by registration and others by harvest ticket, whereas for non-residents the limit is either one or two bulls, with only a harvest ticket required.⁹⁷⁷ The limit for Arctic fox is two per year, for grouse is 15 per day, with a maximum of 30 in possession and for snowy owl, residents may take an unlimited number as long as they are only being used for ‘food or clothing’.⁹⁷⁸

⁹⁷⁰ Alaska Hunting Regulations 2018-2019 16.

⁹⁷¹ *ibid* 10.

⁹⁷² *ibid* 126–137.

⁹⁷³ *ibid*.

⁹⁷⁴ *ibid* 137.

⁹⁷⁵ *ibid*.

⁹⁷⁶ *ibid* 126.

⁹⁷⁷ *ibid* 137.

⁹⁷⁸ *ibid* 140–142.

The state rules on hunting apply throughout the state, regardless of the ownership of the land.⁹⁷⁹ This does not, however, mean that a hunter is necessarily allowed to hunt on all land. On state owned land and in some state parks and state refuges hunting is allowed, although it may be limited to certain areas and there may be access or registration requirements.⁹⁸⁰ On federally owned land, including in National Wildlife Refuges, hunting is usually allowed, subject to both state and any additional federal requirements.⁹⁸¹ Generally, hunting is not allowed in National Parks except by Alaska residents located in rural areas.⁹⁸² While much of Alaska is owned by the state or the federal government, some land is owned privately or is held by a Regional Native Corporation.⁹⁸³ In order to hunt on such land, permission of the landowner or the Regional Native Corporation, in the Arctic, the Arctic Slope Regional Corporation, is required.⁹⁸⁴ Some land held by a Regional Native Corporation will only be available for hunting to shareholders of the corporation.⁹⁸⁵ State hunting rules still apply to non-public lands.⁹⁸⁶

There are different rules in place for subsistence hunting, with the acknowledgement that for some communities, hunting, fishing and trapping is the only means of providing food security or of providing food of the type traditionally eaten in that community.⁹⁸⁷ Hunting also has a deeply important cultural significance for many tribes and communities.⁹⁸⁸ Species hunted for subsistence differ across the state but, in the Arctic, include moose, caribou, Dall sheep, seal, whale and walrus.⁹⁸⁹ Subsistence hunters still require a licence and there are seasons and bag limits but the number of animals which can be caught is greater than for non-subsistence hunters.⁹⁹⁰ Subsistence hunters must be resident in Alaska

⁹⁷⁹ *ibid* 8.

⁹⁸⁰ *ibid*.

⁹⁸¹ *ibid*.

⁹⁸² *ibid*.

⁹⁸³ *ibid*.

⁹⁸⁴ *ibid*.

⁹⁸⁵ *ibid*.

⁹⁸⁶ *ibid*.

⁹⁸⁷ 'Subsistence Hunting' (*Alaska Department of Fish and Game*)

<<http://www.adfg.alaska.gov/index.cfm?adfg=subsistence.hunting>> accessed 14 June 2018.

⁹⁸⁸ *ibid*.

⁹⁸⁹ *ibid*.

⁹⁹⁰ Alaska Administrative Code, AAC 5.99.

in order to obtain a licence.⁹⁹¹ This type of subsistence hunting is in addition to that allowed for indigenous people under the Migratory Birds Treaty Act of 1918.⁹⁹²

Where a person wishes to trap rather than hunt, they may need to obtain a trapping licence rather than a hunting licence. For certain species, such as Alaska marmot (found in the Brooks Mountain Range and east towards the Yukon), common muskrat and least weasel (also both Arctic species), a trapping licence is required.⁹⁹³ For species which are considered to be furbearers or big game such as Arctic fox, wolverine and beaver, either a hunting licence or a trapping licence may be used, but the respective rules of the type of licence held must be observed.⁹⁹⁴ Trapping licences are available to Alaska residents and can be combined with a hunting licence for non-residents; trapping licences are not issued to non-resident aliens.⁹⁹⁵ Trapping works on the same Game Management Unit system as hunting, with bag limits and hunting seasons set for each year for each unit or part thereof.⁹⁹⁶ In the Arctic units (23-26) there are currently no bag limits for any of the species which may be trapped but there are hunting seasons, such as 1 November to 30 April for wolf, except in the northern part of unit 25D where the season for wolf starts a month earlier.⁹⁹⁷ The regulations also specify the types of trapping which may take place in each unit, usually prohibiting the use of small traps and snares, firearms and bows in certain units, at certain times or for certain species, for example wolves may not be trapped using a small trap or snare during the month of April in units 24 and 25.⁹⁹⁸

Breaches of the rules on hunting and trapping are dealt with under Alaskan state law. Most breaches are considered to be a misdemeanour and are punished with a fine of up to \$1,000, a prison term of up to six months, or both.⁹⁹⁹ There are a few offences which are treated differently, in particular, a non-resident who is convicted of hunting big game without a guide will be, on conviction, liable to a fine of up to \$5,000 and a prison sentence of up to one year, or both.¹⁰⁰⁰ Similarly where a non-resident alien hunts big game without a guide,

⁹⁹¹ *ibid*, AAC 5.99.030.

⁹⁹² Migratory Birds Treaty Act of 1918, 16 USC; 50 CFR §92.5.

⁹⁹³ Alaska Trapping Regulations 2018-2019 5; Chester (n 24) 30, 40–41, 82.

⁹⁹⁴ Alaska Trapping Regulations 2018-2019 5.

⁹⁹⁵ *ibid* 7–8.

⁹⁹⁶ Alaska Trapping Regulations 2018-2019.

⁹⁹⁷ *ibid* 35–44.

⁹⁹⁸ *ibid*.

⁹⁹⁹ Alaska State Code, AS 16.05.430.

¹⁰⁰⁰ *ibid*, AS 16.05.407.

they can be found guilty of a class A misdemeanour which is punishable by a fine of up to \$10,000 or a prison sentence of one year, or both.¹⁰⁰¹

A.5.Habitat Protection

A.5.1. ANILCA

In 1980, Congress passed the Alaska National Interests Lands Conservation Act ('ANILCA') in order to 'preserve...certain lands and waters in the State of Alaska'.¹⁰⁰² One of the stated purposes of Congress was 'to provide for the maintenance of sound populations of, and habitat for, wildlife species of inestimable value to the citizens of Alaska and the Nation, including those species dependent on vast relatively undeveloped areas'.¹⁰⁰³ The act established or extended a number of conservation system units, under the various land protection systems such as National Parks, National Wildlife Refuges and National Forests.¹⁰⁰⁴ The act also designated land as wilderness under section 3(c) of the Wilderness Act.¹⁰⁰⁵ While the majority of the land designated under ANILCA lies to the south of the Arctic Circle, the act protected some land in the Arctic, most famously expanding the Arctic National Wildlife Refuge as is discussed below.¹⁰⁰⁶ The act established the Gates of the Arctic National Park with over 7.5 million acres of land to protect the habitat of 'fish and wildlife, including, but not limited to, caribou, grizzly bears, Dall sheep, moose, wolves, and raptorial birds' albeit while allowing traditional subsistence use by local people.¹⁰⁰⁷ Further National Parks created under the act were the Kobuk Valley National Park, the Cape Krusenstern National Monument and the Noatak National Preserve, all to the west of the Gates of the Arctic National Park.¹⁰⁰⁸ The Kobuk Valley National Park was created to protect the 'migration routes for the Arctic caribou herd' and to protect the habitats of 'caribou, moose, black and grizzly bears, wolves and waterfowl' and the Cape Krusenstern National Monument provides a protected habitat for 'seal and other marine mammals' as well as birds, fish and other mammals.¹⁰⁰⁹ The Noatak National Preserve protects the Noatak River and its surrounding area which is a habitat for, among

¹⁰⁰¹ *ibid*, AS 16.05.408.

¹⁰⁰² Alaska National Interest Lands Conservation Act 1980 (96 PL 487, 94 Stat 2371), §101(a), 16 USC §3101(a).

¹⁰⁰³ *ibid*, §101(b), 16 USC §3101(b).

¹⁰⁰⁴ *ibid*, §201-606.

¹⁰⁰⁵ *ibid*, §701, 16 USC §1132; Wilderness Act, 16 USC.

¹⁰⁰⁶ Alaska National Interest Lands Conservation Act, §303(2).

¹⁰⁰⁷ *ibid*, §201(4).

¹⁰⁰⁸ *ibid*, §201(3), (6), (8).

¹⁰⁰⁹ *ibid*, §201(6).

others, grizzly bears, caribou, Dall sheep, moose, wolves, raptors and waterfowl.¹⁰¹⁰ ANILCA also designated the Yukon Flats National Wildlife Refuge, 8 million acres of land to the south of the Arctic National Wildlife Refuge for the protection of the habitats of ‘canvasbacks and other migratory birds, Dall sheep, bears, moose, wolves, wolverines and other furbearers, caribou...and salmon’.¹⁰¹¹ This refuge is particularly important for the management of the Porcupine and Fortymile herds of caribou.¹⁰¹² To the west of the Yukon Flats National Wildlife Refuge is the Kanuti National Wildlife Refuge, the northernmost part of which is located north of the Arctic Circle.¹⁰¹³ The refuge, over a million acres of a boreal forest and wetlands was established under ANILCA in order to protect the habitat of ‘white fronted geese and other waterfowl and migratory birds, moose, caribou...and furbearers’.¹⁰¹⁴ The wildlife refuge plays a role in the management of the Western Arctic caribou herd.¹⁰¹⁵ ANILCA also added nine rivers located north of the Arctic Circle to the list of wild rivers under the Wild and Scenic Rivers Act, in order to preserve the rivers and their immediate surroundings in a ‘free-flowing condition’.¹⁰¹⁶ Finally, the Chukchi Unit of the Alaska Maritime Wildlife Refuge was established under ANILCA for the protection of marine mammals, marine birds, migratory birds and land mammals.¹⁰¹⁷ The new refuge encompassed the Chamisso National Wildlife Refuge on Chamisso Island which had been designated as a National Wildlife Refuge in 1912 and designated as wilderness in 1975, as well as 11 other National Wildlife Refuges and 1.9 million additional acres of land, sea and islands to create the Alaska Maritime Wildlife Refuge.¹⁰¹⁸ The land belonging to the refuge is scattered along the coast of Alaska.

¹⁰¹⁰ *ibid*, §201(8).

¹⁰¹¹ *ibid*, §302(9).

¹⁰¹² *ibid*, §302(9).

¹⁰¹³ *ibid* §302(4).

¹⁰¹⁴ *ibid* §302(4)(B)(i).

¹⁰¹⁵ *ibid* §302(4)(B)(i).

¹⁰¹⁶ *ibid* §601-606; Wild and Scenic Rivers Act of 1968, 16 USC chp 28 and §1271.

¹⁰¹⁷ Alaska National Interest Lands Conservation Act §303(1).

¹⁰¹⁸ *ibid* §303(1); ‘Alaska Maritime Wildlife Refuge Establishment’ (*US Fish and Wildlife Service*) <https://www.fws.gov/refuge/alaska_maritime/establishment.html> accessed 25 June 2018.

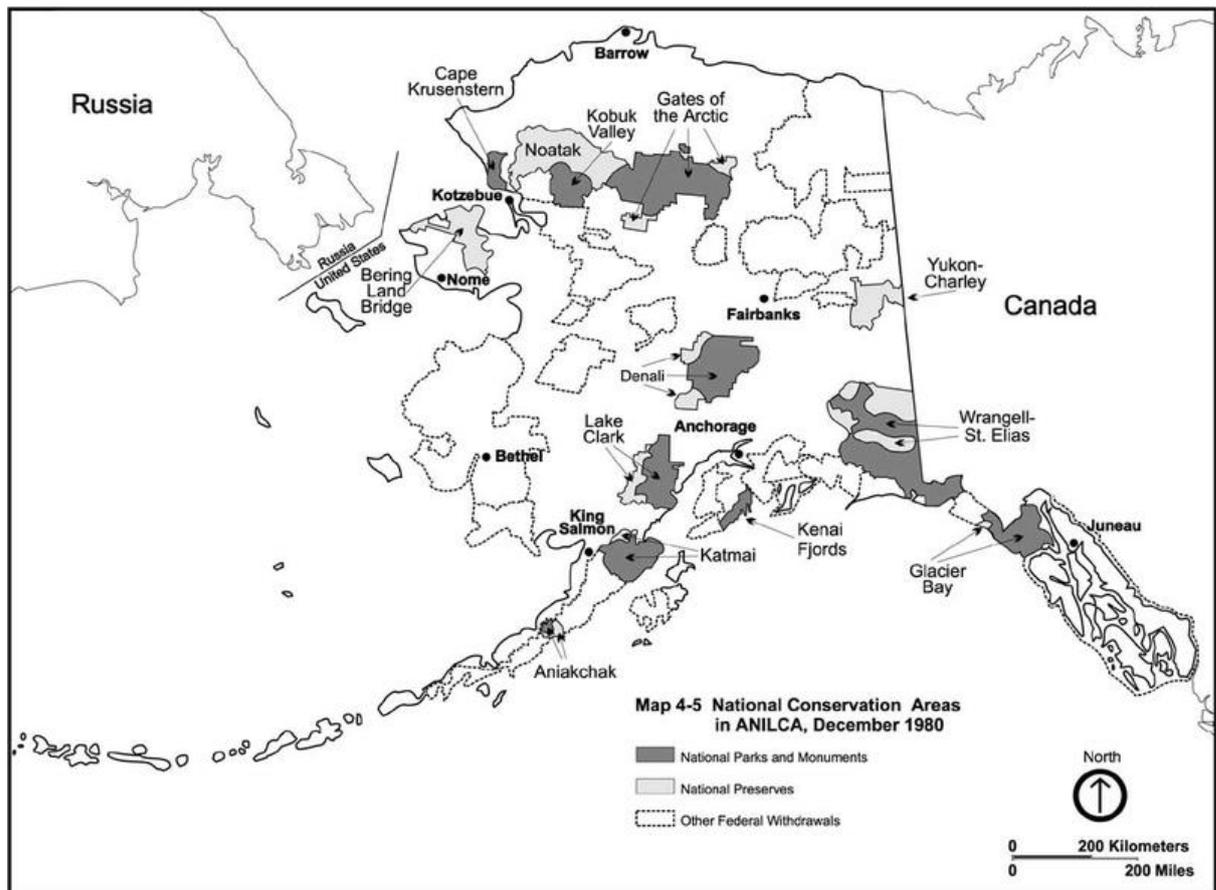


Figure 5: Map of the National Conservation Areas Established or Expanded under ANILCA. Courtesy of US National Parks Service.

A.5.2. State Habitat Protection

The State of Alaska designates land owned by the state for protection and management by the Alaska Department of Natural Resources.¹⁰¹⁹ There are currently no State Parks designated in the Arctic.¹⁰²⁰ None of the State designated refuges, sanctuaries, critical habitats or wildlife ranges are as far north as the Arctic Circle.¹⁰²¹ There are some state designated Controlled Use Areas in the Arctic, each with their own specific regulations. For example, in the Anaktuvuk Pass Controlled Use Area, to north of the Gates of the Arctic National Park, the transportation of caribou hunters, hunting gear and part of caribou is not allowed between 15 August and 15 October each year.¹⁰²² The impact of state regulation

¹⁰¹⁹ Alaska State Code, AS 16.20.

¹⁰²⁰ 'Alaska State Park Units' (*Alaska Department of Natural Resources*) <<http://dnr.alaska.gov/parks/aspunits/index.htm>> accessed 6 June 2018.

¹⁰²¹ 'Conservation Areas' (*Alaska Department of Fish and Game*) <<http://www.adfg.alaska.gov/index.cfm?adfg=conservationareas.locator>> accessed 6 June 2018.

¹⁰²² 'Controlled Use Areas' (*Alaska Department of Fish and Game*) <<http://www.adfg.alaska.gov/index.cfm?adfg=conservationareas.controlleduse>> accessed 6 June 2018.

on the Arctic, however, is much less than the impact of federal regulation given the much larger areas managed by the federal government.

A.6. Case Studies

A.6.1. Polar Bear Listing

Center for Biological Diversity v Salazar (In re Polar Bear Endangered Species Act Listing)

794 F. Supp. 2d 65 (District of Columbia 2011)

District Court of the District of Columbia

Safari Club International v Salazar (In re Polar Bear Endangered Species Act Listing & Section 4(d) Rule Ligation – MDL No. 1993)

709 F.3d 1 (District of Columbia Circuit 2013)

Court of Appeals for the District of Columbia Circuit

The polar bear is in many ways the most iconic of the Arctic species. Known as Nanooq in the Inupiaq language of northern Alaska, the polar bear's sheer size and ability to hunt makes it the alpha or apical predator in the marine Arctic environment.¹⁰²³ In Alaska, there are two subpopulations, one in the southern Beaufort Sea and the other in the Chuckchi-Bering Sea. Polar bears rely predominantly on sea ice and spend most of the year offshore, following the ice north as the southernmost parts of the pack ice melt in the summer, and spreading more widely during the winter.¹⁰²⁴ Polar bears use the sea ice as a platform from which to hunt, migrate, swim, mate and rest.

While the polar bear population is currently stable, the biggest threat to the survival of the polar bear is climate change. Due to the bears' reliance on sea ice, any threat to the sea ice also poses a threat to their survival. Any reduction in the extent or quality of sea ice makes it harder for polar bears to hunt thereby reducing their ability to obtain adequate nutrition and causing competition for food which is available, results in polar bears having to swim

¹⁰²³ Steven C Amstrup, 'Polar Bear, *Ursus Maritimus*' in George A Feldhamer, Bruce C Thompson and Joseph A Chapman (eds), *Wild Mammals of North America: Biology, Management, and Conservation* (2nd edn, John Hopkins University Press 2003) 591

<<https://pdfs.semanticscholar.org/ed30/603c743b4bba5604e5cef8b3abe223704a97.pdf>> accessed 28 August 2017.

¹⁰²⁴ *ibid* 587.

longer distances which can lead to higher levels of drowning and causes an increased risk of interactions with humans, all of which will affect the survival of the species.¹⁰²⁵ Key ‘life functions’ including eating, reproduction and resting all take place on sea ice and cannot take place in open water.¹⁰²⁶ As was described at 1.8 above there is substantial evidence that the sea ice in the Arctic is melting rapidly. As a result of these temperature increases, the multi-year sea ice, which normally remains frozen during the summer, was melting at an unprecedented rate.¹⁰²⁷ The rate of decline is even faster than had been predicted by the Intergovernmental Panel on Climate Change in its Fourth Assessment Report published in 2007.¹⁰²⁸ By 2011, summer sea ice had been at or near its lowest levels every year for the previous decade and was almost one third smaller than the average between 1979 and 2000.¹⁰²⁹ Even where the ice remained intact, research showed that thinner, newer ice had taken the place of thick, multi-year ice.¹⁰³⁰

Concerned about the impact of climate change on the polar bear’s sea ice habitat, on 17 February 2005, the Centre for Biological Diversity, a not for profit organisation based in Arizona, petitioned the Secretary of State of the Interior to have the species listed as a threatened species.¹⁰³¹ Having considered the scientific evidence and provided time for public comment, on 9 January 2007, the Fish and Wildlife Service (‘the Service’) published a proposal to list the polar bear as a threatened species.¹⁰³² The Endangered Species Act required the Service to publish a final decision regarding the listing of the species within twelve months.¹⁰³³ The Service failed to publish the listing so the Centre for Biological Diversity was forced to seek an injunction forcing the final listing decision to be made.¹⁰³⁴ Following the court order to publish the final listing decision, the Service published its decision to list the polar bear as a threatened species on 15 May 2008.¹⁰³⁵ At the same time,

¹⁰²⁵ Designation of Critical Habitat for the Polar Bear (*Ursus Maritimus*) in the United States 2010 76,111.

¹⁰²⁶ Designation of Critical Habitat for the Polar Bear (*Ursus Maritimus*) Proposed Rule, 74 Federal Register 56,057 (29 October 2009) 28,219.

¹⁰²⁷ *Snow, Water, Ice and Permafrost in the Arctic (SWIPA): Climate Change and the Cryosphere* (n 60) vi.

¹⁰²⁸ *ibid.*

¹⁰²⁹ *ibid.*

¹⁰³⁰ *ibid.*

¹⁰³¹ *Center for Biological Diversity v Salazar (In re Polar Bear Endangered Species Act Listing)* (n 277) 72.

¹⁰³² 12-Month Petition Finding and Proposed Rule to List the Polar Bear (*Ursus Maritimus*) as Threatened Throughout Its Range 2007.

¹⁰³³ Endangered Species Act 1973 § 1533(b)(6).

¹⁰³⁴ *Centre for Biological Diversity v Kempthorne 2008 US Dist LEXIS 34753; 38 ELR 20103; 2008 WL 1902703.*

¹⁰³⁵ Determination of Threatened Status for the Polar Bear (*Ursus Maritimus*) Throughout Its Range 2008.

the Secretary of the Interior issued regulations under s4 (d) of the act regarding the protection of the polar bear.¹⁰³⁶

The decision to list the polar bear as a threatened species was made on the basis that it ‘is likely to become an endangered species within the foreseeable future throughout all of its range’.¹⁰³⁷ Having reviewed the scientific and commercial evidence available, including long term studies of polar bear populations and United States Geological Survey population models, the Service reached the conclusion that the polar bear’s sea ice habitat is declining as a result of climate change, that the decline was predicted to continue for the foreseeable future and that the loss of habitat was a threat to the survival of the species.¹⁰³⁸ The Service found that climate predictions showed that temperatures would continue to rise, causing the sea ice to melt until at least the end of the 21st century and they could therefore confidently predict a reduction in sea ice habitat over the next 40 to 50 years.¹⁰³⁹

The listing of the polar bear was controversial as the polar bear was the first species in the United States to be listed as a threatened species as a result of climate change predictions.¹⁰⁴⁰ Objections came from all sides, some, such as the Center for Biological Diversity and the Natural Resources Defence Council, claiming that the Service should have listed the polar bear as an endangered species and others, such as the Alaska Oil and Gas Association, that the polar bear should not have been listed as threatened as it did not meet the requirements of the act.¹⁰⁴¹ A number of lawsuits were filed, arguing that the decision of the Service was arbitrary and capricious and should be set aside; the suits were consolidated before the District Court for the District of Columbia alongside other suits challenging the section 4(d) regulations.¹⁰⁴² On 20 October 2008, the plaintiffs filed a

¹⁰³⁶ Special Rule for the Polar Bear, 73 Federal Register 28,306 (15 May 2008) codified at 50 CFR § 17.40(q); Endangered Species Act 1973 § 1533(d).

¹⁰³⁷ Determination of Threatened Status for the Polar Bear (*Ursus Maritimus*) Throughout Its Range 2008 28,212.

¹⁰³⁸ *ibid* 28,212794; *Center for Biological Diversity v Salazar (In re Polar Bear Endangered Species Act Listing)* (n 277) 74–75.

¹⁰³⁹ *Center for Biological Diversity v Salazar (In re Polar Bear Endangered Species Act Listing)* (n 277) 73.

¹⁰⁴⁰ Brown (n 355); *Center for Biological Diversity v Salazar (In re Polar Bear Endangered Species Act Listing)* (n 277) 87.

¹⁰⁴¹ *Center for Biological Diversity v Salazar (In re Polar Bear Endangered Species Act Listing)* (n 277) 78.

¹⁰⁴² *State of Alaska v Salazar, No 08-1352 (DDC 4 Aug 2008)*; *Safari Club International v Salazar No 08-1550 (DDC 8 Sept 2008)*; *California Cattlemen’s Association and the Congress on Racial Equality v Salazar, No 08-1689 (DDC 2 Oct 2008)*; *Center for Biological Diversity et al v Salazar, No 08-1339 (ND California 10 March 2008)*; *Conservation Force et al v Salazar, No 09-245 (DDC 9 Feb 2009)*; Administrative Procedure Act; *Center for Biological Diversity v Salazar (In re Polar Bear Endangered Species Act Listing)* (n 277) 77.

motion seeking summary judgment.¹⁰⁴³

In its judgment, the court was clear about its role: agencies making complex policy decisions are to be granted deference by the court.¹⁰⁴⁴ The court's role is not to decide whether or not it would have reached the same conclusion, its role is merely to decide whether or not the Service 'satisf[ied] certain minimal standards of rationality based on the evidence'.¹⁰⁴⁵ A court will not hold an agency decision to be arbitrary and capricious as long as the agency has considered all of the relevant factors, has not relied on irrelevant factors and has provided an explanation which adequately connects the evidence before the agency with the decision reached.¹⁰⁴⁶

This case was unusual because there were two main sets of plaintiffs holding opposing positions, the plaintiffs representing environmental causes and the plaintiffs representing industry. The main arguments, from both sets of plaintiffs centred around the evidence on which the Service had relied. The environmental plaintiffs argued that the scientific evidence showed that the sea ice will continue to melt until the end of the 21st century and that there was therefore sufficient evidence to warrant listing the polar bear as an endangered species.¹⁰⁴⁷ They argued that the definition of endangered did not require that the species be in 'imminent danger of extinction'.¹⁰⁴⁸ The industrial plaintiffs argued that the Service had not demonstrated that the polar bear was sufficiently likely to become an endangered species (defining likelihood as 67-90% likely), that the Service had arbitrarily chosen a 45 year timeframe when deciding how to define the foreseeable future and that the scientific evidence on which the Service relied was too uncertain.¹⁰⁴⁹ In response to the environmental plaintiffs, the Service argued that the polar bear was not 'currently on the brink of extinction' so it could not list it as an endangered species.¹⁰⁵⁰ In response to the industrial plaintiffs the Service argued that there was no numerical definition of the term 'likely' and that numerical terms for likelihood as used by the IPCC were only relevant in

¹⁰⁴³ *Center for Biological Diversity v Salazar (In re Polar Bear Endangered Species Act Listing)* (n 277) 78.

¹⁰⁴⁴ *ibid* 69.

¹⁰⁴⁵ *ibid*.

¹⁰⁴⁶ *ibid* 79–80.

¹⁰⁴⁷ *ibid* 85.

¹⁰⁴⁸ *ibid* 82.

¹⁰⁴⁹ *ibid* 91–96, 104–110.

¹⁰⁵⁰ *ibid* 84–85.

the context of climate change, not in the context of the likelihood of extinction.¹⁰⁵¹ The Service also argued that the selection of a 45 year timeframe as the ‘foreseeable future’ was because it could make confident predictions this far in the future and it roughly corresponded to three polar bear generations.¹⁰⁵² Finally, the federal defendants argued that they were only required to rely on the best available science, even if that science is uncertain or imperfect.¹⁰⁵³ On every point the court agreed with the Service, concluding that the arguments of the plaintiffs were ‘nothing more than competing views about policy and science’.¹⁰⁵⁴ The court was ‘simply not persuaded that the Service’s decision to list the polar bear as a threatened species under the ESA was arbitrary and capricious’ and therefore upheld the decision.¹⁰⁵⁵

The plaintiffs appealed to the Court of Appeals for the District of Columbia Circuit.¹⁰⁵⁶ The arguments before the DC Circuit were much the same as those put to the District Court. The appellants did not challenge the Service’s ‘findings on climate science nor on polar bear biology’ nor did they present any evidence that the Service had failed to consider.¹⁰⁵⁷ Instead, they argued that the Service ‘misinterpreted and misapplied the record’.¹⁰⁵⁸

The DC Circuit set out the same standard of review as the District Court, stating that its role was to ensure that the Service had not acted arbitrarily or capriciously but not to substitute its own judgment for that of the Service.¹⁰⁵⁹ The Service was to be afforded a high level of deference but no deference would be shown to the decision of the District Court.¹⁰⁶⁰

Repeating their arguments from the District Court, the appellants argued that the Service had failed to apply the IPCC’s definition of ‘likely’ (67-90% certainty) to its decision to

¹⁰⁵¹ *ibid* 92.

¹⁰⁵² *ibid* 94.

¹⁰⁵³ *ibid* 104–108.

¹⁰⁵⁴ *ibid* 69.

¹⁰⁵⁵ *ibid* 81, 116.

¹⁰⁵⁶ *Safari Club International v Salazar (In re Polar Bear Endangered Species Act Listing & Section 4(d) Rule Litigation - MDL No. 1993)* (n 277).

¹⁰⁵⁷ *ibid* 3.

¹⁰⁵⁸ *ibid*.

¹⁰⁵⁹ *ibid* 8.

¹⁰⁶⁰ *ibid*; *Holland v National Mining Association* 309 F3d 808 (DC Circuit 2002) 814.

list the polar bear.¹⁰⁶¹ They claimed that the Service had introduced the definition but failed to demonstrate that the polar bear was at such a risk of extinction.¹⁰⁶² They also argued that the Service had arbitrarily selected a period of 45 years as the ‘foreseeable future’ when they should have considered the foreseeable future to include the entire time period that they could currently assess.¹⁰⁶³ This would mean that the Service would need to be able to say that the listing factors under the act would be fulfilled even at the furthest point in time that the Service could reliably assess.¹⁰⁶⁴

In relation to the first argument, the court found that the appellant’s argument was ‘facially implausible’.¹⁰⁶⁵ It was clear that the Service only intended to rely on the IPCC’s definition of the word ‘likely’ in relation to the predictions on climate change, not the predictions on species survival.¹⁰⁶⁶ The Service had said that it had interpreted the word ‘likely using its ‘ordinary meaning’.¹⁰⁶⁷ The Service argued, and the court agreed, that there was nothing in the act which required the term ‘likely’ to be interpreted as meaning a 67-90% certainty.¹⁰⁶⁸ In relation to the second argument, while the Service is required to consider whether a species ‘is likely to become an endangered species within the foreseeable future’, the term ‘foreseeable future’ is not defined.¹⁰⁶⁹ The Service decides what is foreseeable on a case by case basis and in this case selected a period of 45 years on the basis that this was the timeframe over which it could reliably predict the effect of climate change.¹⁰⁷⁰ The court held that while the Service could have selected a different time period, its decision was ‘justifiable and clearly articulated’.¹⁰⁷¹ It was therefore not arbitrary or capricious.¹⁰⁷²

The appellants also contended that the Service had failed to explain how the predicted habitat loss would lead to the extinction of the polar bear, that the Service was wrong to hold that the polar bear was threatened throughout its range as some regions are protected

¹⁰⁶¹ *Safari Club International v Salazar (In re Polar Bear Endangered Species Act Listing & Section 4(d) Rule Litigation - MDL No. 1993)* (n 277) 14–15.

¹⁰⁶² *ibid.*

¹⁰⁶³ *ibid* 15–16.

¹⁰⁶⁴ *ibid* 15.

¹⁰⁶⁵ *ibid* 14.

¹⁰⁶⁶ *ibid* 14–15.

¹⁰⁶⁷ *ibid.*

¹⁰⁶⁸ *ibid.*

¹⁰⁶⁹ *ibid* 15.

¹⁰⁷⁰ *ibid.*

¹⁰⁷¹ *ibid.*

¹⁰⁷² *ibid.*

from the sea ice melting, that the population models relied upon were flawed, that the Service had failed to take into account the conservation efforts taking place in Canada and that the Service had failed to provide sufficient written justification to the State of Alaska.¹⁰⁷³ Rejecting each one of these arguments, the court concluded that the appellants were taking parts of the record out of context and agreed with the District Court that the arguments were merely a disagreement about science and policy.¹⁰⁷⁴ The conclusions of the Service were well supported by scientific evidence on both climate change and polar bear biology and had gone through a peer review process.¹⁰⁷⁵ The DC Circuit therefore upheld the decision to list the polar bear as a threatened species.¹⁰⁷⁶

An application was made to the Supreme Court for a writ of certiorari but on 7 October 2013 the court declined to hear the case.¹⁰⁷⁷

A.6.2. Polar Bear Critical Habitat

Alaska Oil & Gas Association v Salazar

916 F. Supp. 2d 974 (District of Alaska 2013)

District Court for the District of Alaska

Alaska Oil & Gas Association v Jewell

815 F.3d 544 (9th Circuit 2016)

Court of Appeals for the Ninth Circuit

The Fish and Wildlife Service elected not to designate the critical habitat of the polar bear when it listed the species as threatened on the basis that it had not be possible to determine the necessary area given the large expanse of land and sea over which the polar bears roamed.¹⁰⁷⁸ Under the act, the agency had one year in which to make the designation and so, on 29 October 2009, a proposed rule was issued.¹⁰⁷⁹ During two comment periods the

¹⁰⁷³ *ibid* 9–19.

¹⁰⁷⁴ *ibid* 3, 9–10, 12, 13–14, 17, 18–19.

¹⁰⁷⁵ *ibid* 8.

¹⁰⁷⁶ *ibid* 19.

¹⁰⁷⁷ *Safari Club International v Jewell* [2013] 134 Supreme Court 310.

¹⁰⁷⁸ Designation of Critical Habitat for the Polar Bear (*Ursus Maritimus*) in the United States 2010 76,091.

¹⁰⁷⁹ Endangered Species Act 1973 § 1533(a)(3)(A)(i), (b)(6)(C); Designation of Critical Habitat for the Polar Bear (*Ursus Maritimus*) Proposed Rule 2009.

Service received over one hundred thousand comments regarding the habitat designation and it therefore took another year until the final rule was published on 7 December 2010.¹⁰⁸⁰

The Service found that the primary constituent elements required for the survival of the polar bear included the ability to range over a large area of land and sea ice, the availability of seals on which to feed (which in turn is dependent on the availability of sea ice), adequate terrain in which pregnant females can build their dens and refuge from interactions with humans.¹⁰⁸¹ Using the ‘best scientific data available’, the Service identified an area of northern Alaska and the adjacent territorial waters which contained the primary constituent elements and designated this as the critical habitat for the polar bear.¹⁰⁸² Covering over 187,000 square miles of land, sea and ice, the designation was split into three units. Unit 1 was the largest, consisting of 95.9% of the total critical habitat. It covered the offshore sea ice inhabited by polar bears for mating, hunting, resting and travelling.¹⁰⁸³ Unit 2 consisted of the onshore denning habitat used by female polar bear to build dens in which to give birth and raise their young.¹⁰⁸⁴ Unit 3 covered the offshore barrier islands along the Alaskan coastline and the land, ice and water within one mile of the islands.¹⁰⁸⁵ The indigenous villages of Barrow (Utqiagvik) and Kaktovik were excluded from the designation on the basis that the benefit of maintaining a positive partnership between the federal government and the indigenous communities outweighed the benefit of including the villages in the critical habitat designation.¹⁰⁸⁶ Polar bears entering the villages are deterred and even killed if necessary for public safety so the villages were not deemed to be suitable to be designated as the polar bear’s habitat.¹⁰⁸⁷ There were another thirteen villages situated within the designation but while the ‘existing manmade structures’ within the villages were excluded,

¹⁰⁸⁰ Designation of Critical Habitat for the Polar Bear (*Ursus Maritimus*) in the United States 2010.

¹⁰⁸¹ *ibid* 76,111-76,115.

¹⁰⁸² *ibid* 76,119.

¹⁰⁸³ *ibid* 76,115, 76,119, 76,121.

¹⁰⁸⁴ *ibid* 76,121.

¹⁰⁸⁵ *ibid* 76,122.

¹⁰⁸⁶ *ibid* 76,128.

¹⁰⁸⁷ *ibid*.

the villages themselves were not excluded, unlike Barrow (Utqiagvik) and Kaktovik; the reasons for this were not made clear.¹⁰⁸⁸

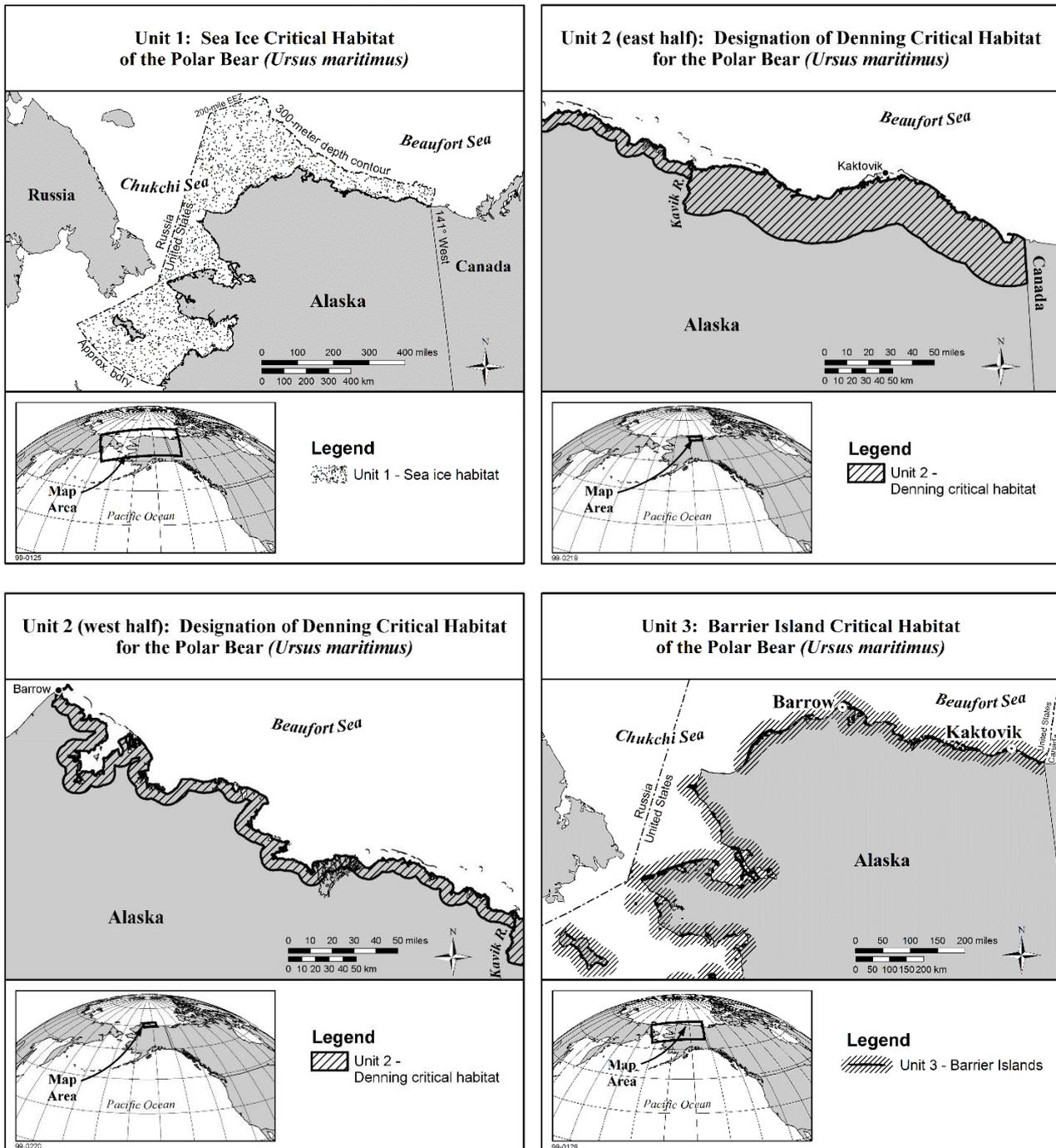


Figure 6: Maps of Polar Bear Critical Habitat
 Courtesy of US Fish and Wildlife Service

¹⁰⁸⁸ 'Memorandum in Support of Alaska Native Plaintiffs' and North Slope Borough's Motion for Summary Judgment, Alaska Oil & Gas Association v Salazar, 916 F. Supp. 2d 974 (District of Alaska 2013)' 12; Designation of Critical Habitat for the Polar Bear (Ursus Maritimus) in the United States 2010 76,119.

The critical habitat designation was challenged by a number of groups including the Alaska Oil and Gas Association and the American Petroleum Institute, representing the interests of the oil and gas industry, the State of Alaska and a coalition formed from the Alaska Native Corporations, the tribal government of the Inupiat Community of the Arctic Slope and the North Slope Borough, the region's municipal government.¹⁰⁸⁹ The cases were consolidated before the District Court for the District of Alaska and the plaintiffs sought summary judgment.¹⁰⁹⁰ Three environmental organizations, Center for Biological Diversity, Defenders of Wildlife, and Greenpeace, acted as intervenor-defendants on the side of the defendant.¹⁰⁹¹

The plaintiffs were unhappy about the sheer scale of the designated critical habitat which covered a greater area than the State of California.¹⁰⁹² In particular, the plaintiffs were concerned about the impact of the designation on the indigenous population, the Service's failure to consider the indirect economic impacts of the designation and that the Service had included in the designation, areas which it had not demonstrated were occupied by polar bears and that the designation was not supported by the record.¹⁰⁹³

The District Court dismissed the argument that the designation was too broad on the basis that the Service had not included the entire polar bear habitat so the designation was not in breach of the act. In relation to the argument that the Service had not considered all the potential economic impacts of the designation, the court took into account all of the economic impacts, some quantitatively and the more speculative costs, qualitatively.¹⁰⁹⁴ The court also ruled that the designation of the sea ice habitat in Unit 1 was not arbitrary and capricious on the basis that the ice fulfilled the characteristics required to support the polar bear, namely sea ice over shallow water.¹⁰⁹⁵ The court was satisfied that the Service had adequately demonstrated that Unit 1 contained this feature.¹⁰⁹⁶ For units 2 and 3, however, the court found that the record did not provide evidence of the necessary physical

¹⁰⁸⁹ *Alaska Oil & Gas Association v Salazar* (n 277) 982.

¹⁰⁹⁰ *ibid* 984.

¹⁰⁹¹ *Alaska Oil & Gas Association v Salazar* (n 277).

¹⁰⁹² 'Response Brief and Opening Brief on Cross Appeal of the Alaska Native Organizations, the Alaska Oil and Gas Association, and the American Petroleum Institute, *Alaska Oil and Gas Association v Jewell*, 815 F.3d 544 (9th Circuit 2016)' 1.

¹⁰⁹³ *Alaska Oil & Gas Association v Salazar* (n 277) 983.

¹⁰⁹⁴ *Alaska Oil & Gas Association v Jewell* (n 8) 993–994.

¹⁰⁹⁵ *Alaska Oil & Gas Association v Salazar* (n 277) 990.

¹⁰⁹⁶ *ibid*.

and biological features.¹⁰⁹⁷ The Service had identified the necessary features (known as principle constituent elements or PCEs) but had not shown the specific location of those features within the critical habitat designation.¹⁰⁹⁸ For example, the scientific evidence showed that polar bears required ‘steep, stable slopes’ for the building of their dens but in Unit 2, which was the area designated as critical habitat for denning, only one per cent of the land matched this description.¹⁰⁹⁹ The court said that while not every part of the designation had to show all the necessary features, ‘*every part* of the designation must have at least one’.¹¹⁰⁰ As the Service had failed to show this, the court held that designation of units 2 and 3 was arbitrary and capricious.¹¹⁰¹ The court also held that the Service had failed to comply with its duty to provide a written response to the State of Alaska.¹¹⁰²

Despite having accepted that the vast majority (over 95%) of the critical habitat designation was not arbitrary and capricious, the District Court chose to vacate the whole of the designation and remand it to the Service, saying that ‘the critical habitat designation presents a disconnect between the twin goals of protected a cherished resource and allowing for growth and much needed economic development. The current designation went too far and was too extensive’.¹¹⁰³

The Service appealed the judgment to the Ninth Circuit Court of Appeals, challenging the decision in relation to Units 2 and 3 and also objecting to the decision to set aside the entire designation despite there being no problems with Unit 1.¹¹⁰⁴ The plaintiffs cross appealed the decision.¹¹⁰⁵

In its appeal, the Service argued that the District Court was unsupported by the administrative record.¹¹⁰⁶ They argued that the court had been wrong to require the Service to prove that polar bears were using the area designated as critical habitat because the act

¹⁰⁹⁷ *ibid* 999–1003.

¹⁰⁹⁸ *ibid* 998–1003.

¹⁰⁹⁹ *ibid* 999–1001.

¹¹⁰⁰ *ibid* 1002.

¹¹⁰¹ *ibid* 1001–1003.

¹¹⁰² *ibid* 1003–1004.

¹¹⁰³ *State of Alaska v Salazar, No 08-1352 (DDC 4 Aug 2008)* (n 1042) 1004.

¹¹⁰⁴ *Alaska Oil & Gas Association v Jewell* (n 8) 550.

¹¹⁰⁵ *ibid*.

¹¹⁰⁶ *ibid*.

did not require this level of specificity to which the District Court held the Service.¹¹⁰⁷ The Service also argued that even if the District Court was right about Units 2 and 3, it was wrong to vacate the rule in its entirety.¹¹⁰⁸ In response, the plaintiffs' main arguments were that the designation was unsupported by the evidence as the Service had failed to identify the specific areas where the essential habitat features were found and had designated areas which were not suitable habitat for polar bears, that the court was entitled to vacate the entire rule, that the Service had not taken into account economic impacts such as administrative costs, delay costs and the costs associated with uncertainty and risk.¹¹⁰⁹

The Ninth Circuit reversed the decision of the District Court.¹¹¹⁰ Their main reason for doing so was that the District Court had held the Service to 'a standard of specificity that the [act] does not require' when it asked them to identify the locations of the essential physical and biological features within the habitat and to show current usage of the entire critical habitat by polar bears.¹¹¹¹ The court said that the act was intended to preserve the future of the species and this meant that the species would need space in which to move as it recovered.¹¹¹² As such, the Service was allowed to designate land which could be used by polar bears.¹¹¹³ In relation to Unit 2, the court found that the District Court had failed to take into account the radio telemetry data which showed how far female polar bears roamed, nor had they taken into account the need for 'undisturbed access to and from the sea ice'.¹¹¹⁴ The plaintiffs had argued that the Service could not take into account the effect of climate change on the habitat and was not allowed to designate habitat which would become critical in the future as a result of climate change.¹¹¹⁵ The court dismissed this argument on the basis that habitat change as a result of climate change was the very reason for listing the polar bear as a threatened species in the first place.¹¹¹⁶ In relation to Unit 3, the court determined that the District Court had been wrong to hold that only the areas

¹¹⁰⁷ *ibid* 554–555.

¹¹⁰⁸ *ibid* 554.

¹¹⁰⁹ 'Response Brief and Opening Brief on Cross Appeal of the Alaska Native Organizations, the Alaska Oil and Gas Association, and the American Petroleum Institute, *Alaska Oil and Gas Association v Jewell*, 815 F.3d 544 (9th Circuit 2016)' (n 1092).

¹¹¹⁰ *Alaska Oil & Gas Association v Jewell* (n 8) 550.

¹¹¹¹ *ibid* 555.

¹¹¹² *ibid* 555–556.

¹¹¹³ *ibid* 556.

¹¹¹⁴ *ibid* 557.

¹¹¹⁵ *ibid* 558.

¹¹¹⁶ *ibid* 558–559.

which the bears were using at the time of designation could be considered to be critical habitat.¹¹¹⁷ The court said that the administrative record showed that polar bears used the area for building dens but also, more broadly, for travelling, feeding and raising cubs.¹¹¹⁸ The record also showed that the barrier islands and surrounding land, sea and ice provided refuge from human interaction and were traversed by polar bears seeking food, rest or a suitable den site.¹¹¹⁹ The court therefore ruled that the critical habitat designations were rational, supported by the ‘best available scientific data’ as was required under the act.¹¹²⁰ The designation was therefore not arbitrary and capricious.¹¹²¹

While the plaintiffs cross appealed, they were unsuccessful.¹¹²² The court was of the opinion that the plaintiffs were merely ‘seek[ing] to resurrect the claims that the district court rejected’ and found that they had been ‘correctly denied’.¹¹²³ In particular, the court found that the assessment of economic impacts was not arbitrary and capricious; the Service had taken account of both direct and indirect costs.¹¹²⁴ While the indirect costs were considered qualitatively due to their uncertainty, they were considered and it was within the discretion of the Service to undertake the assessment in this manner.¹¹²⁵

The Court reversed the decision of the District Court and entered judgment in favour of the Service.¹¹²⁶ The plaintiffs petitioned the Supreme Court for permission to appeal but certiorari was denied on 1 May 2012.¹¹²⁷ As a result, the decision of the Court of Appeals, upholding the decision of the Service to designate large swathes of northern Alaska as critical habitat for the polar bear, stands.

A.6.3. Pacific Walrus

Center for Biological Diversity v US Fish and Wildlife Service, et al
3:08-cv-00265-JWS (2009)

¹¹¹⁷ *ibid* 560–561.

¹¹¹⁸ *ibid* 561.

¹¹¹⁹ *ibid*.

¹¹²⁰ *ibid* 562.

¹¹²¹ *ibid*.

¹¹²² *ibid* 564–565.

¹¹²³ *ibid*.

¹¹²⁴ *ibid*.

¹¹²⁵ *ibid*.

¹¹²⁶ *ibid* 565–566.

¹¹²⁷ *Alaska Oil & Gas Association v Zinke* 137 US Supreme Court 2091 (2017).

District Court for the District of Alaska

Center for Biological Diversity v Bernhardt,
formerly Center for Biological Diversity v Zinke

3:18-cv-00064-SLG (2019)

District Court for the District of Alaska

The Pacific walrus (*Odobenus rosmarus ssp. Divergens*) is a subspecies of walrus which is found in the Bering and Chukchi Seas in Arctic Alaska and Arctic Russia. The Pacific walrus is a marine mammal which, like the polar bear, is reliant on sea ice for resting, mating, calving, travelling and hunting.¹¹²⁸ Walruses can frequently be seen in large groups, hauled out of the water on floating sheets of pack ice.¹¹²⁹ While Atlantic walruses haul out on coastal land, Pacific walruses predominantly haul out on ice and spend much less time near the coast (terrestrial haul outs, in remote areas away from human disturbance, are not unknown but are less common and generally only used by male walruses).¹¹³⁰ Pacific walruses in Alaska can spend their entire lives at sea, migrating northwards as the southern ice melts and returning in the winter. As walruses spend most of their lives at sea, partly on ice and partly in the water, it is difficult to conduct a full assessment of the population size.¹¹³¹ It is thought that there are about 300,000 individuals but the figure could range from just under 100,000 up to 500,000.¹¹³² The population does seem to be falling and, whether it is or not, any species which is completely reliant on sea ice, like the Pacific walrus, will be threatened by the impact of climate change on its sea ice habitat.

As a result of the threat to the walrus' habitat, in February 2008, the Center for Biological Diversity petitioned the United States Fish and Wildlife Service asking that the Pacific walrus be considered for listing as a threatened species and requesting that a critical habitat

¹¹²⁸ 12-Month Findings on Petitions to List 25 Species as Endangered or Threatened Species, 82 Federal Register 46,618 (5 October 2017) 46,642-46,643.

¹¹²⁹ 12-Month Finding on a Petition to List the Pacific Walrus as Endangered or Threatened, Proposed Rule, 76 Federal Register 7634 (10 February 2011) 7635.

¹¹³⁰ *ibid* 7634, 7637.

¹¹³¹ 12-Month Findings on Petitions to List 25 Species as Endangered or Threatened Species, 82 Federal Register 46,618 (5 October 2017) 46,642-46,643.

¹¹³² *ibid*; 'Pacific Walrus' (*Marine Mammal Commission*) <<https://www.mmc.gov/priority-topics/species-of-concern/pacific-walrus/>> accessed 6 August 2019.

be designated.¹¹³³ The Fish and Wildlife Service had, by that point in 2008, already run out of funding to enable them to consider listing any more species during that year, except for emergency cases and it did not consider the Pacific Walrus to merit such a consideration.¹¹³⁴ The Center for Biological Diversity brought a claim in the Alaska District Court seeking a declaration that the Fish and Wildlife Service was required to consider the Pacific walrus for listing.¹¹³⁵ The case was settled with the Fish and Wildlife Service agreeing to consider the position of the Pacific walrus by 10 September 2009.¹¹³⁶ On the very last day on which it was allowed to do so, the Fish and Wildlife Service issued its provisional findings in the Federal Register.¹¹³⁷ The Fish and Wildlife Service found that listing of the Pacific walrus as threatened ‘may be warranted’ on the basis of ‘substantial scientific or commercial information’.¹¹³⁸ The agency needed more time to solicit information and to reach a conclusion so an amended settlement agreement in the case brought by the Center for Biological Diversity gave until 31 January 2011.¹¹³⁹ On 10 February 2011 the Fish and Wildlife Service published its finding that the Pacific walrus should be listed but that there were other species which were of a higher priority and therefore, for reasons of resource allocation, it was therefore not possible to list the Pacific walrus at that time.¹¹⁴⁰ The finding of the Fish and Wildlife Service was clear: ‘the destruction, modification, and curtailment of sea-ice habitat is a threat to the Pacific walrus’.¹¹⁴¹ The impact of declining sea ice would result in the Pacific walrus being forced to use terrestrial land on which to haul out, leading to ‘[c]hanges in foraging patterns and prey depletion, increased vulnerability to mortality or injury due to trampling, especially for calves, juveniles, and females, greater vulnerability to mortality or injury from predation, and greater vulnerability to mortality due to hunting’.¹¹⁴²

¹¹³³ 12-Month Findings on Petitions to List 25 Species as Endangered or Threatened Species, 82 Federal Register 46,618 (5 October 2017) 46,642-46,643.

¹¹³⁴ *ibid.*

¹¹³⁵ *ibid.*

¹¹³⁶ *ibid.*; *Center for Biological Diversity v US Fish and Wildlife Service, et al* [2009] (3:08-cv-00265-JWS).

¹¹³⁷ 90-Day Finding on a Petition to List the Pacific Walrus as Threatened or Endangered, 74 Federal Register 46,548 (10 September 2009).

¹¹³⁸ *ibid.* 46,548; 12-Month Findings on Petitions to List 25 Species as Endangered or Threatened Species, 82 Federal Register 46,618 (5 October 2017) 46,642-46,643.

¹¹³⁹ 12-Month Findings on Petitions to List 25 Species as Endangered or Threatened Species, 82 Federal Register 46,618 (5 October 2017) 46,642-46,643; *Center for Biological Diversity v US Fish and Wildlife Service, et al.* (n 1136).

¹¹⁴⁰ 12-Month Finding on a Petition to List the Pacific Walrus as Endangered or Threatened, Proposed Rule, 76 Federal Register 7634 (10 February 2011) 7634.

¹¹⁴¹ *ibid.* 7649.

¹¹⁴² *ibid.* 7646.

As the Pacific walrus was not listed as a threatened species in 2009, it was included on the list of candidate species each year until, in 2017, as a result of another settlement agreement between the Fish and Wildlife Service, the Center for Biological Diversity and Wildearth Guardians, the agency was forced either to list the walrus as a threatened species or reach a final decision that listing was not warranted.¹¹⁴³

On 5 October 2017, the Fish and Wildlife Service published its decision that, despite its previous findings, the listing of the Pacific walrus, along with 24 other species, was not warranted. The main reason given was that the ‘Pacific walrus population appears to possess degrees of resiliency, representation, and redundancy that have allowed it to cope with the changing environments of the last decade’.¹¹⁴⁴ The decision said that the Pacific walrus appeared to be adapting to the changing climate, such as through the use of terrestrial haul out spaces, despite the risks of disease and trampling, and that this ability to adapt meant that the population would not be threatened by the loss of sea ice.¹¹⁴⁵ Somewhat tellingly, the change in the opinion of the Fish and Wildlife Service coincided with a change in administration of the United States’ government to an administration that is known to be suspicious of climate change.

The Center for Biological Diversity filed a complaint in the Alaska District Court against the Secretary of the Interior and the Fish and Wildlife Service on 8 March 2018, arguing that change in opinion was arbitrary, capricious and a violation of the Endangered Species Act.¹¹⁴⁶ It argued that, rather than showing adaptability, the change in behaviour of the Pacific walrus demonstrated that sea ice loss was already beginning to affect the walrus and that the impacts would only get worse.¹¹⁴⁷ The Center also argued that the agency had failed to explain, or even acknowledge, the change in its decision, had relied on climate change predictions that were too short (up to 2060 only, rather than through to 2100, thereby underestimating the habitat loss), had not reached their decision on the basis of the

¹¹⁴³ *Endangered Species Act Section 4 Deadline Litigation*, No 10– 377 (EGS), MDL Docket No 2165 (District Court for the District of Columbia 10 May 2011); 12-Month Findings on Petitions to List 25 Species as Endangered or Threatened Species, 82 Federal Register 46,618 (5 October 2017) 46,642.

¹¹⁴⁴ 12-Month Findings on Petitions to List 25 Species as Endangered or Threatened Species, 82 Federal Register 46,618 (5 October 2017) 46,643.

¹¹⁴⁵ *ibid.*

¹¹⁴⁶ ‘Complaint for Declaratory and Injunctive Relief, Center for Biological Diversity v Zinke (2018)’.

¹¹⁴⁷ *ibid.*

best scientific data available and that the agency had misused the uncertainty around the future of the Pacific walrus as an exclude not to list it.¹¹⁴⁸

The case has still not been heard by the Alaska District Court, despite it being filed over a year ago. When the case is heard, and a decision reached, it will be interesting to see what the approach of the District Court, and undoubtedly the Ninth Circuit Court of Appeals. The Ninth Circuit has, in all of the previous Arctic endangered species cases, granted deference to the relevant government agency. If they do that in this case, it will cause the perverse conclusion that although the polar bear and ice seals are threatened by the loss of their sea ice habitat, the Pacific walrus is not.

[On 26 September 2019, the Alaska District Court issued summary judgment in favour of the defendant, Secretary of the Interior, David Bernhardt.¹¹⁴⁹ In a fully reasoned judgment, made on the papers rather than following oral hearing, the court held that the decision of the Fish and Wildlife Service was not ‘arbitrary and capricious’.¹¹⁵⁰ Addressing each of the five arguments put by the Center for Biological Diversity, the court found in favour of the defendants in all of them.¹¹⁵¹]

¹¹⁴⁸ *ibid.*

¹¹⁴⁹ *Center for Biological Diversity v Bernhardt* (n 272).

¹¹⁵⁰ *ibid.*

¹¹⁵¹ *ibid.*

B. Canada

B.1. History and Geography of Arctic Canada

The Canadian North is characterised by immense wilderness. While over 35 million people live in Canada, they are almost entirely concentrated on the country's southern border.¹¹⁵² Only 113,604 people live in the three northern territories of Yukon, Northwest Territories and Nunavut, and of these, even fewer reside north of the Arctic Circle.¹¹⁵³ Despite the low population, the northern territories cover almost four million square kilometres, about 39% of the area of Canada.¹¹⁵⁴ It is a lonely, wild and often desolate place.

The geography of northern Canada is diverse, with the region containing mountains, large forests, open plains, icy seas, Arctic islands, rushing rivers, vast wetlands and polar desert.¹¹⁵⁵ The tree line marks the change between lush forests and plains and the more barren tundra to the north.¹¹⁵⁶ To the far north, is the Arctic Cordillera, an Arctic mountain range which skims the north coast of Nunavut, and north from there, the frozen islands of the Canadian Arctic Archipelago, with Baffin Island in the east and Ellesmere Island in the north.¹¹⁵⁷ The region's geography is, however, dominated by the cold temperatures experienced throughout the northern territories.¹¹⁵⁸ The temperatures in Canada are much colder than in the European Arctic countries, with large amounts of permafrost and much longer winters than further east.¹¹⁵⁹ Summers in the far north are short and cool and even further south, there is little more than a month of warmer weather.¹¹⁶⁰ The long days of light provide a fast growing season in the boreal forests but on the tundra, the cold inhibits growth and limits it to mosses, lichens and stunted bushes.¹¹⁶¹ The climate is dry, particularly in the Arctic Archipelago, causing little snow to fall which means that the

¹¹⁵² Statistics Canada, 'Population and Dwelling Count Highlight Tables, 2016 Census' (*Government of Canada*, 8 February 2017) <<https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/hlt-fst/pd-pl/Table.cfm?Lang=Eng&T=101&S=50&O=A>> accessed 18 January 2019.

¹¹⁵³ *ibid.*

¹¹⁵⁴ *ibid*; Bone (n 283) 486.

¹¹⁵⁵ Bone (n 283) 489.

¹¹⁵⁶ *ibid.*

¹¹⁵⁷ *ibid.*

¹¹⁵⁸ *ibid.*

¹¹⁵⁹ *ibid.*

¹¹⁶⁰ *ibid.*

¹¹⁶¹ *ibid* 490.

ground is exposed to the biting cold and harsh winds; the area is often described as a polar desert.¹¹⁶² The sea around the islands of the Archipelago, and out towards the north pole, is mostly frozen.¹¹⁶³ The pack ice drifts around the Beaufort Sea, expanding and thawing with the seasons but never disappearing.¹¹⁶⁴ Climate change is, however, causing significantly more of the pack ice to melt during the summer than in previous years and the frozen seas to the north of Canada are likely to be open water during the summer within a generation.¹¹⁶⁵

The far north of Canada has been inhabited by indigenous people for many thousands of years, long before the British claimed the land.¹¹⁶⁶ In the Arctic region, the indigenous people were Inuit groups who lived off the land, using kayaks and harpoons to catch marine mammals such as seals and whales.¹¹⁶⁷ There were seven separate groups of Inuit people, spread along the Arctic shoreline.¹¹⁶⁸ In 1576, Martin Frobisher, an English explorer seeking the northwest passage, arrived on Baffin Island as the first known European to encounter the Inuit people since the Vikings.¹¹⁶⁹ Sadly the encounter led to the death of a number of Frobisher's men and the capture of some Inuit people who were brought back to England to exhibit.¹¹⁷⁰ Other explorers travelled to the Arctic between Frobisher's expedition and the nineteenth century, most notably John Franklin, whose two ships disappeared without trace in 1845, but there was little contact between the indigenous population and the explorers.¹¹⁷¹

During the nineteenth century whalers, and then fur trappers, began to exploit the Arctic commercially.¹¹⁷² Initially whaling ships would travel from Europe to hunt during the summer season, returning for the winter but soon 'over-wintering' became common as it allowed ships to make the most of the early summer whaling opportunities.¹¹⁷³ Whaling,

¹¹⁶² *ibid.*

¹¹⁶³ *ibid.*

¹¹⁶⁴ *ibid.*

¹¹⁶⁵ *Snow, Water, Ice and Permafrost in the Arctic (SWIPA): Summary for Policymakers* (n 4) 3.

¹¹⁶⁶ Bone (n 283) 491.

¹¹⁶⁷ *ibid.*

¹¹⁶⁸ *ibid.*

¹¹⁶⁹ *ibid.* 492.

¹¹⁷⁰ *ibid.*

¹¹⁷¹ *ibid.*

¹¹⁷² *ibid.*

¹¹⁷³ *ibid.* 492–493.

and later fur trapping, offered indigenous people the chance to trade goods with Europeans, in particular giving them access to ‘knives, needles, and rifles’, but also exposed them to alcohol and European diseases.¹¹⁷⁴ When the commercial whaling industry halted, fur trapping replaced it with the Hudson’s Bay Company establishing trading posts throughout the north to supply the demand for Arctic fox and beaver furs in Europe.¹¹⁷⁵ Trading fur pelts for goods with indigenous people, the Hudson’s Bay Company became the largest landowner in the world and acted as a de facto government throughout the north.¹¹⁷⁶

Throughout the sixteenth and seventeenth centuries, French and British settlers had attempted to colonise what is now known as Canada.¹¹⁷⁷ The French established New France while the British settled in Nova Scotia and in Hudson’s Bay, forming British North America.¹¹⁷⁸ In 1763, at the end of the Seven Years’ War, the French handed their territorial claims to the British, who ruled, and settled, British North America from then on.¹¹⁷⁹ In 1867, in a process known as Confederation, the British Parliament passed the British North America Act 1867 which created the Dominion of Canada from the colonies of Ontario, Quebec, New Brunswick and Nova Scotia.¹¹⁸⁰ Canada was given its own Parliament with a governor general as the head of government, a Senate (upper house) and a House of Commons (lower house); the British crown remained the head of state.¹¹⁸¹ The colonies became provinces, with powers granted to them under the British North America Act 1867.¹¹⁸² More provinces were added over the next few years including a large swathe of the north western Arctic as the North-Western Territory in 1870, for which £300,000 was paid to the Hudson’s Bay Company, and, in 1880, British transferred its previous claim over the Arctic Archipelago to Canada.¹¹⁸³

¹¹⁷⁴ *ibid* 493.

¹¹⁷⁵ *ibid* 494; Robert Bothwell, *The Penguin History of Canada* (Penguin Canada 2006) 54–56.

¹¹⁷⁶ ‘Hudson’s Bay Company Heritage — Currency’ (*Hudson’s Bay Company*, 2016) <<http://www.hbcheritage.ca/history/fur-trade/currency>> accessed 23 January 2019.

¹¹⁷⁷ Bothwell (n 1175) ch 3.

¹¹⁷⁸ *ibid*.

¹¹⁷⁹ *ibid* 88.

¹¹⁸⁰ British North America Act 1867 (Constitution Act 1867); Bone (n 283) 108; ‘Confederation’ (*The Canadian Encyclopedia*, 2018) <<https://www.thecanadianencyclopedia.ca/en/article/confederation>> accessed 23 January 2019; Bothwell (n 1175) 210–213.

¹¹⁸¹ Bone (n 283) 108.

¹¹⁸² Constitution Act 1867.

¹¹⁸³ Bone (n 283) 108–111.

While the southern colonies became provinces in the new country, in the north, Canada created territories. Initially, there was a single territory but in 1898, Yukon territory was carved out of the North-West Territories.¹¹⁸⁴ The territories were governed by Ottawa but soon a territorial government was established for Yukon with an appointed commissioner and an elected council.¹¹⁸⁵ The population explosion in the Yukon as a result of the Klondike gold rush in 1897 precipitated the need for self-government and, while the goldrush was short lived, the council remained in place, albeit with fewer powers.¹¹⁸⁶ The Northwest Territories gained control much more slowly, gradually losing land, first to the south of the 60°N parallel, then to the west to the Yukon, and finally, in 1999 to the newly created territory of Nunavut to the east.¹¹⁸⁷ The Northwest Territories was originally governed from Ottawa with an appointed commissioner and council.¹¹⁸⁸ Gradually, throughout the twentieth century, the council became increasingly elected, and was eventually relocated to Yellowknife.¹¹⁸⁹

Towards the end of the twentieth century, the Canadian government began entering into land claim agreements with indigenous people who asserted that their traditional lands had been forcibly taken from them by the European settlers.¹¹⁹⁰ The first comprehensive land claim agreement in the Arctic, the Inuvialuit Final Agreement, was reached between the Inuvialuit and Canada in 1984.¹¹⁹¹ The agreement acknowledged the Inuvialuit people's right to the western Arctic region, gave them title to certain selected lands, paid financial compensation for the people surrendering their other land claims, granted hunting rights and established a number of social programmes.¹¹⁹² Similar land claim agreements were reached with the Gwich'in, the Sahtu/Métis and Yukon in 1992 and 1993.¹¹⁹³ The Nunavut land settlement agreement was reached with the Inuit people in 1993, and at the same time, the Canadian government committed to create a separate territory for the Inuit people who make up the majority of the population in the north east Canadian Arctic.¹¹⁹⁴ Making good

¹¹⁸⁴ *ibid* 495.

¹¹⁸⁵ *ibid*.

¹¹⁸⁶ *ibid*.

¹¹⁸⁷ *ibid* 496.

¹¹⁸⁸ *ibid*.

¹¹⁸⁹ *ibid*.

¹¹⁹⁰ *ibid* 501.

¹¹⁹¹ Inuvialuit Final Agreement 1984.

¹¹⁹² *ibid*.

¹¹⁹³ Bone (n 283) 502–503.

¹¹⁹⁴ Nunavut Land Claims Agreement; Bone (n 283) 501.

on their promise, the Canadian parliament created the territory of Nunavut in 1999 under the Nunavut Act 1993.¹¹⁹⁵ By creating a distinct territory for the Inuit people, called ‘our land’ in Inuktitut, the hope was to promote the culture, language and interests of the indigenous people.

B.2. Government and Legal System

B.2.1. Federal Government

Canada is a federal constitutional monarchy, with the Queen of Canada as the head of state and a written constitution to control how power is exercised.¹¹⁹⁶ As the Queen of Canada is also the Queen of the United Kingdom, she is represented in Canada by the Governor General who is appointed by the Queen on the recommendation of the Canadian Prime Minister.¹¹⁹⁷

The Constitution of Canada was drafted by the British Parliament in 1867.¹¹⁹⁸ It provides for a federal system, with power shared between the federal government and the provinces.¹¹⁹⁹ The federal government deals with matters which relate to the entire nation such as defence, taxation, crime and managing federally owned land.¹²⁰⁰ The provinces and territories have responsibility for local matters such as healthcare, education, civil law and care for public lands not owned by the federal government.¹²⁰¹ The provinces and territories may only legislate in matters about which they have been granted authority; all remaining matters rest with the federal government.¹²⁰²

At a federal level, the Constitution creates a tripartite system of separation of powers. Federal executive power is exercised by the Queen.¹²⁰³ Today, by constitutional convention, executive power is actually exercised by the Canadian Cabinet which is formed from the political party with the highest number of seats in the House of Commons and is led by the Prime Minister.¹²⁰⁴ The Prime Minister is appointed by the Queen and is usually

¹¹⁹⁵ Nunavut Act 1993.

¹¹⁹⁶ Constitution Act 1867.

¹¹⁹⁷ *ibid* 13.

¹¹⁹⁸ Constitution Act 1867.

¹¹⁹⁹ *ibid* 91–92.

¹²⁰⁰ *ibid* 91.

¹²⁰¹ *ibid* 92–93.

¹²⁰² *ibid* 91–93.

¹²⁰³ *ibid* 9.

¹²⁰⁴ Sasha Baglay, *Introduction to the Canadian Legal System* (Pearson 2016) 51–54.

the leader of the party which is to form the Cabinet.¹²⁰⁵ Once appointed, the Prime Minister selects the remaining members of the Cabinet from among the members of his or her party in the House of Commons.¹²⁰⁶ The main roles of the Cabinet are to advise the Queen, to lead the various government ministries and to set the legislative agenda for Parliament.¹²⁰⁷

Legislative power is held by the Canadian Parliament.¹²⁰⁸ This is a bicameral body located in Ottawa.¹²⁰⁹ The upper chamber, the Senate, is appointed by the Governor General on the advice of the Prime Minister.¹²¹⁰ The provinces and territories are all represented on the Senate with the provinces having between six and 24 Senators each and the territories having one each.¹²¹¹ The lower chamber is the House of Commons which is directly elected by the people of Canada.¹²¹² Of its 308 members, one member represents each of the Yukon, the Northwest Territories and Nunavut.¹²¹³ Legislation is passed by both the Senate and the House of Commons and granted Royal Assent before it becomes law.¹²¹⁴

Federal judicial power is held and exercised by the federal court system within Canada.¹²¹⁵ The federal courts deal with matters pertaining directly to federal law such as federal taxation and the judicial review of federal administrative decisions.¹²¹⁶ The federal courts are overseen by the Supreme Court of Canada.¹²¹⁷ In Canada the courts operate with an adversarial system; lawyers collect evidence and present their client's case to an impartial judge or jury.¹²¹⁸

B.2.2. Territorial Governments

While the provinces derived, and continue to derive, their power and authority from the British North America Act 1867 (now the Constitution Act 1867) which divided power

¹²⁰⁵ *ibid.*

¹²⁰⁶ *ibid.*

¹²⁰⁷ *ibid.*

¹²⁰⁸ Constitution Act 1867 s 17.

¹²⁰⁹ *ibid.*

¹²¹⁰ *ibid* 21–27.

¹²¹¹ *ibid* 22.

¹²¹² *ibid* 37.

¹²¹³ *ibid* 37, 51(2).

¹²¹⁴ *ibid* 55.

¹²¹⁵ Baglay (n 1204) 83–85.

¹²¹⁶ *ibid.*

¹²¹⁷ *ibid.*

¹²¹⁸ *ibid* 86.

between the provincial governments and the Canadian federal government, the territories were, and are, reliant on the federal government to grant them powers of self-government.¹²¹⁹ The power of the Nunavut Territory is derived from the Nunavut Act 1993 and the Nunavut Land Claims Agreement Act 1993, and similar acts exist for the Yukon, in the form of the Yukon Act 2002 and the Northwest Territories, with the Northwest Territories Act 2014.¹²²⁰ Each of the territories has a federally appointed commissioner, who represents the head of state, and an unicameral elected Legislative Assembly.¹²²¹ Nunavut and the Northwest Territories have a consensus based political system with no political parties; the Legislative Assemblies select a Premier and cabinet (known as the Executive Council) from among their number to exercise executive power.¹²²² In the Yukon, there are political parties, and the Premier and the cabinet (or Executive Council) are taken from the largest party elected to the Assembly.¹²²³ The acts which establish the territories also set out the powers devolved to the territories, such as in the areas of healthcare, property rights, education and game management, with the Yukon having more powers than the other two territories, including power over natural resource management.¹²²⁴ All three territories receive substantial subsidies from the federal government to enable them to operate and to provide public services.¹²²⁵

B.2.3. Legal Systems

Canada, at a federal level, for most of the provinces and for all of the territories, has a common law system as would be expected for a former British colony. The British settlers brought the common law with them while the French settlers brought civil law. As a result of this, Quebec operates a mixed civil and common law system but the common law prevails in the rest of the country. The legal systems of Canada, and particularly of the northern territories, have also been influenced by the traditional legal systems of the indigenous people.¹²²⁶ These traditional systems are known as chthonic systems which have few, if any, formal legal institutions or written rules.¹²²⁷ Instead the legal system is

¹²¹⁹ Constitution Act 1867 ss 91–93.

¹²²⁰ Nunavut Act 1993; Yukon Act 2002; Northwest Territories Act 2014.

¹²²¹ Nunavut Act 1993; Yukon Act 2002; Northwest Territories Act 2014.

¹²²² Nunavut Act 1993; Northwest Territories Act 2014.

¹²²³ Yukon Act 2002 ss 4, 10; 'The Evolution of the Legislative Assembly'

<http://www.legassembly.gov.yk.ca/pdf/4_evolution_of_the_legassembly.pdf> accessed 24 January 2019.

¹²²⁴ Nunavut Act 1993; Yukon Act 2002; Northwest Territories Act 2014.

¹²²⁵ Bone (n 283) 500.

¹²²⁶ Baglay (n 1204) 25–27.

¹²²⁷ *ibid* 19, 25–27.

intertwined with the community itself, with notions of justice, reconciliation and resolution of disputes by and within the community.¹²²⁸ Such systems are often heavily reliant on ideas about the relationship between the people and the environment and about intergenerational responsibility.¹²²⁹

None of the territories now formally use a chthonic legal system but the indigenous legal systems have had an impact on the development of their common law systems and some ideas from the traditional legal cultures, are being introduced in order better to serve the local communities within their own culture.¹²³⁰ Restorative justice which involves the offender facing their victim to acknowledge the damage done and to take responsibility is frequently used by communities as an alternative to western style justice.¹²³¹ Restorative justice used in this traditional way can enable both people and communities to obtain justice in a way which is meaningful to them.¹²³² Another way in which traditions have been woven into the system is through the use of elders in the courts.¹²³³ Elders are invited to sit in on court cases.¹²³⁴ They do not act as judges but are there to hear the evidence put before the court.¹²³⁵ The elder will be invited to address the court, or the defendant, during submissions regarding sentencing.¹²³⁶ It is often important for the community that their voices are heard when sentences are decided and the elders are able to represent their people.¹²³⁷

B.2.4. Sources of Law

The sources of law within the federal system are the Constitution, legislation passed by Parliament, subordinate legislation such as regulations issued under the authority of legislation and decisions of judges on the interpretation or development of law.¹²³⁸ As most of Canada has a common law system, case law has a strong precedential value, either as a

¹²²⁸ *ibid.*

¹²²⁹ *ibid.*

¹²³⁰ *ibid*; Kritzer, *Legal Systems of the World* (n 729) 1206.

¹²³¹ Kritzer, *Legal Systems of the World* (n 729) 1206.

¹²³² *ibid.*

¹²³³ *ibid.*

¹²³⁴ *ibid.*

¹²³⁵ *ibid.*

¹²³⁶ *ibid.*

¹²³⁷ *ibid.*

¹²³⁸ Baglay (n 1204) 27–37.

source of interpretation of legislation or as an entire body of judge made rules.¹²³⁹ The ratio decidendi of a case, the reason for its decision, can be binding on courts which are lower than the one in which the case was decided.¹²⁴⁰ Supreme Court cases are binding on all federal courts and the decisions of a provincial or territorial federal court of appeal are binding on the lower courts within that province or territory.¹²⁴¹ Decisions of the federal court of appeal of another province or territory are not binding but are considered to be persuasive.¹²⁴² A system of Parliamentary sovereignty applies in Canada which means that where a statute and a common law rules created by a decision of a court conflict, the statute takes precedence.¹²⁴³

Similar sources of law create the legal systems of the territories within their spheres of authority.¹²⁴⁴ In the Yukon, the Yukon Act 2002, statutes of the Legislative Assembly of Yukon, subordinate legislation issued under the authority of a statute and decisions of the territorial courts are all considered to be sources of law.¹²⁴⁵ In the Northwest Territories, the equivalent to the Constitution is the Northwest Territories Act 2014, statutes are passed by the Legislative Assembly of the Northwest Territories and subordinate legislation is created by the Executive Council of the Northwest Territories.¹²⁴⁶ The set up in Nunavut is the same as the Northwest Territories.¹²⁴⁷ Case law is also important in all three systems as they operate under a common law model.

B.2.5. Courts

Canada has a federal unified court system.¹²⁴⁸ This system is different to that found in the USA because while there are federal courts and provincial and territorial courts, each can deal with both provincial and territorial, and federal matters.¹²⁴⁹ Most matters, both civil and criminal, and whether related to federal, provincial or territorial law, begin in a court

¹²³⁹ *ibid* 30–32.

¹²⁴⁰ *ibid*.

¹²⁴¹ *ibid*.

¹²⁴² *ibid*.

¹²⁴³ *ibid* 36.

¹²⁴⁴ *ibid* 28.

¹²⁴⁵ Yukon Act 2002.

¹²⁴⁶ Northwest Territories Act 2014.

¹²⁴⁷ Nunavut Act 1993.

¹²⁴⁸ Baglay (n 1204) 79–80.

¹²⁴⁹ *ibid*.

of first instance in a provincial or territorial court, with only a small number of matters being heard in the federal court system.¹²⁵⁰

In the Yukon, the court of first instance is often the Territorial Court which is made up of three branches, the Small Claims Court, the Justice of the Peace Court and the Territorial Court.¹²⁵¹ The Small Claims Court hears smaller civil cases where the claim is under 25,000 CAD, the Territorial Court hears adult criminal prosecutions under both federal and territorial criminal laws as well as some child protection and family matters, and the Justice of the Peace Court deals with minor administrative matters and youth crime.¹²⁵² First instance trials for some more significant matters, such as large civil cases and serious criminal cases, and appeals for summary conviction are heard by the Supreme Court of Yukon which is the highest trial court in the Yukon.¹²⁵³ All these courts sit permanently in Whitehorse but travel to other communities when needed.¹²⁵⁴

Appeals from both the Territorial Court and the Supreme Court are to the Court of Appeal of Yukon.¹²⁵⁵ The Court of Appeal of Yukon has jurisdiction to hear appeals in both criminal and civil matters.¹²⁵⁶ The court sits in Whitehorse for a week at a time, every six months.¹²⁵⁷ It will also hear appeals relating to the Yukon in Vancouver as the judges for the Court of Appeal of Yukon are selected from the judges for the Court of Appeal of British Columbia and the judges of the Supreme Courts of the Yukon, the Northwest Territories and Nunavut.¹²⁵⁸

Similar structures apply in both the Northwest Territories and in Nunavut. In the Northwest Territories, small civil claims and many criminal cases are initially heard in the Territorial Court with the Supreme Court hearing more serious cases and appeals in smaller cases.¹²⁵⁹

¹²⁵⁰ *ibid* 79–85.

¹²⁵¹ Herbert M Kritzer (ed), *Legal Systems of the World*, vol III (ABC-CLIO 2002) 1206; Baglay (n 1204) 79–80; ‘Yukon Courts’ <<http://www.yukoncourts.ca/index.html>> accessed 1 August 2019.

¹²⁵² Kritzer, *Legal Systems of the World* (n 1251) 1206; Baglay (n 1204) 79–80; ‘Yukon Courts’ (n 1251).

¹²⁵³ Kritzer, *Legal Systems of the World* (n 1251) 1206; Baglay (n 1204) 79–80; ‘Yukon Courts’ (n 1251).

¹²⁵⁴ Kritzer, *Legal Systems of the World* (n 1251) 1206; Baglay (n 1204) 79–80; ‘Yukon Courts’ (n 1251).

¹²⁵⁵ Kritzer, *Legal Systems of the World* (n 1251) 1206; Baglay (n 1204) 79–80; ‘Yukon Courts’ (n 1251).

¹²⁵⁶ Kritzer, *Legal Systems of the World* (n 1251) 1206; Baglay (n 1204) 79–80; ‘Yukon Courts’ (n 1251).

¹²⁵⁷ Kritzer, *Legal Systems of the World* (n 1251) 1206; Baglay (n 1204) 79–80; ‘Yukon Courts’ (n 1251).

¹²⁵⁸ Kritzer, *Legal Systems of the World* (n 1251) 1206; Baglay (n 1204) 79–80; ‘Yukon Courts’ (n 1251).

¹²⁵⁹ Kritzer, *Legal Systems of the World* (n 1251) 1206; Baglay (n 1204) 79–80; ‘Courts of the Northwest Territories’ <<https://www.nwtcourts.ca/en/>> accessed 1 August 2019.

There is also a Justice of the Peace Court which deals with regulatory matters and minor criminal matters and a Youth Justice Court which handles criminal cases for minors.¹²⁶⁰ These courts all sit in Yellowknife or in other communities within the territory.¹²⁶¹ The highest court in the Northwest Territories is the Court of Appeal of Northwest Territories which hears appeals from the Territorial Court and the Supreme Court.¹²⁶² The judges are shared with the Court of Appeal of Alberta and they come to Yellowknife four times a year.¹²⁶³ In Nunavut, there is a single court, the Nunavut Court of Justice, which undertakes the role of both a territorial court and a territorial Supreme Court.¹²⁶⁴ There is also a Small Claims Court which handles low level civil claims and a Justice of the Peace Court for minor criminal cases and regulatory matters such as issuing permits.¹²⁶⁵ Criminal activity by children goes through the Nunavut Youth Justice Court. Appeals from the Nunavut Court of Justice and the other courts (where not to the Court of Justice) are to the Nunavut Court of Appeal which shares its judges with the Court of Appeal of Alberta.¹²⁶⁶ The Court of Appeal sits in Iqaluit about three times a year.¹²⁶⁷

Most types of legal case are heard through the territorial and provincial systems. There is also, however, a federal court system, although it has quite a limited jurisdiction.¹²⁶⁸ Cases are heard by the Federal Court when they relate to immigration, citizenship, intellectual property, decisions of federal tribunals and other matters as set out in statute.¹²⁶⁹ The trial court is the Federal Court which has national jurisdiction.¹²⁷⁰ Appeals are to the Federal Court of Appeal which is located, along with the Federal Court, in Ottawa.¹²⁷¹

¹²⁶⁰ Kritzer, *Legal Systems of the World* (n 1251) 1206; Baglay (n 1204) 79–80; ‘Courts of the Northwest Territories’ (n 1259).

¹²⁶¹ Kritzer, *Legal Systems of the World* (n 1251) 1206; Baglay (n 1204) 79–80; ‘Courts of the Northwest Territories’ (n 1259).

¹²⁶² Kritzer, *Legal Systems of the World* (n 1251) 1206; Baglay (n 1204) 79–80; ‘Courts of the Northwest Territories’ (n 1259).

¹²⁶³ Kritzer, *Legal Systems of the World* (n 1251) 1206; Baglay (n 1204) 79–80; ‘Courts of the Northwest Territories’ (n 1259).

¹²⁶⁴ Kritzer, *Legal Systems of the World* (n 1251) 1206; Baglay (n 1204) 79–80; ‘Nunavut Courts’ <<https://www.nunavutcourts.ca/index.php>> accessed 1 August 2019.

¹²⁶⁵ Kritzer, *Legal Systems of the World* (n 1251) 1206; Baglay (n 1204) 79–80; ‘Nunavut Courts’ (n 1264).

¹²⁶⁶ Kritzer, *Legal Systems of the World* (n 1251) 1206; Baglay (n 1204) 79–80; ‘Nunavut Courts’ (n 1264).

¹²⁶⁷ Kritzer, *Legal Systems of the World* (n 1251) 1206; Baglay (n 1204) 79–80; ‘Nunavut Courts’ (n 1264).

¹²⁶⁸ Federal Courts Act 1985; Baglay (n 1204) 83–85.

¹²⁶⁹ Federal Courts Act 1985; Baglay (n 1204) 83–85.

¹²⁷⁰ Federal Courts Act 1985; Baglay (n 1204) 83–85.

¹²⁷¹ Federal Courts Act 1985; Baglay (n 1204) 83–85.

The highest court in Canada is the Supreme Court which was established in 1875, under the authority of section 101 of the Constitution Act 1867.¹²⁷² Since 1949 it has been the final appeal court in Canada (prior to this appeals to the United Kingdom's Privy Council were possible).¹²⁷³ The Supreme Court hears appeals from the provincial and territorial Courts of Appeal as well as the Federal Court of Appeal.¹²⁷⁴ Those wishing to appeal to the court need leave to appeal.¹²⁷⁵ The court is composed of nine appointed justices, with geographical representation from across the country albeit none from the northern territories.¹²⁷⁶ The justices sit in panels of five, seven or nine justices depending on the importance of the case.¹²⁷⁷ All hearings are heard in Ottawa and are dealt with in three sessions a year, each lasting three months.¹²⁷⁸

B.3. Arctic Wildlife in Canada

The Canadian Arctic is vast, with huge differences in the various habitats found within it. From the ice and waters of the Arctic Archipelago, across the tundra, to the lush boreal forests, Arctic Canada provides the habitats necessary for a wide array of Arctic species. Towards the south of the region, in particular in the Yukon and Northwest Territories, there are deep boreal forests, filled with spruce and pine trees, interspersed with bogs and other wetlands.¹²⁷⁹ North of the treeline, on the frozen tundra, there are no trees but there are many species of grass, moss, dwarf bushes and tiny flowering plants such as high northern buttercup and Arctic campion.¹²⁸⁰ Even further north, in the polar desert of the Arctic Archipelago, the flora is mostly limited to mosses, lichens and flowers such as the purple Arctic wallflower and the tufted flowers of the Arctic bladderpod which grows on cliffs and stony outcrops.¹²⁸¹

¹²⁷² Constitution Act 1867 s 101; Kritzer, *Legal Systems of the World* (n 729) 255; Baglay (n 1204) 83–85.

¹²⁷³ Baglay (n 1204) 83–85.

¹²⁷⁴ *ibid.*

¹²⁷⁵ *ibid.*

¹²⁷⁶ *ibid.*

¹²⁷⁷ *ibid.*

¹²⁷⁸ *ibid.*

¹²⁷⁹ Natural Resources Canada, 'Boreal Forest' (*Government of Canada*, 11 July 2013) <<https://www.nrcan.gc.ca/forests/boreal/13071>> accessed 5 February 2019.

¹²⁸⁰ 'Nunavut' (*The Canadian Encyclopedia*)

<<https://www.thecanadianencyclopedia.ca/en/article/nunavut>> accessed 5 February 2019; Chester (n 24) 457, 464.

¹²⁸¹ Chester (n 24) 468–470.

The icy waters off northern Canada are home to a number of ice dependent seals such as hooded seals, harp seals, ringed seals, harbour seals and bearded seals.¹²⁸² Walrus are found in the eastern part of Canada and narwhal are found in the eastern and northern part of the Canadian Arctic Archipelago.¹²⁸³ The cold, and relatively undisturbed, waters also attract a number of Arctic whales including beluga whales, bowhead whales, killer whales, minke whales and humpback whales.¹²⁸⁴ The polar bear, one of the most iconic species in Arctic Canada is also found in the marine environment. Of the 19 subpopulations of polar bear found around the pole, 14 are located in wholly or partly in Canada or in Canadian territorial waters, with a total of about 16,000 bears.¹²⁸⁵ Polar bears are found right in the far north, on and around Ellesmere Island, and as far south as the Hudson Bay coastlines of Ontario and Quebec.¹²⁸⁶

On land, caribou are found abundantly. Herds of barren ground caribou can be found across the Canadian Arctic tundra.¹²⁸⁷ The herds migrate seasonally from the tundra to the taiga forests or across the sea ice from the mainland to the islands, often travelling hundreds of miles in a single year.¹²⁸⁸ Woodland caribou, which live entirely within the taiga forests, can be found further south, while to the north, on the Arctic islands, live herds of Peary caribou, adapted to the cold conditions with small, stocky bodies and white winter coats.¹²⁸⁹

Other land based mammals found in Arctic Canada include the herds of muskoxen which roam across the tundra, a healthy population of wolves, grizzly bears and black bears, Canada lynx and wolverines. Smaller mammals include Arctic foxes, red foxes, Arctic hares, lemmings and weasels.¹²⁹⁰ Large number of birds spend all or part of their lives on

¹²⁸² 'What Kind of Animals Live in Nunavut?' (*Nunavut Wildlife Management Board*)

<http://www.nwmb.com/index.php?option=com_content&view=article&id=77&Itemid=75&lang=en#q-2-what-kinds-of-animals-live-in-nunavut> accessed 28 January 2019.

¹²⁸³ Chester (n 24) 96–97, 125–126.

¹²⁸⁴ 'What Kind of Animals Live in Nunavut?' (n 1282).

¹²⁸⁵ Environment and Climate Change Canada, 'Maps of Subpopulations of Polar Bears and Protected Areas' (*Government of Canada*, 17 February 2010) <https://www.canada.ca/en/environment-climate-change/services/biodiversity/maps-sub-populations-polar-bears-protected.html#_fig01> accessed 28 January 2019.

¹²⁸⁶ *ibid.*

¹²⁸⁷ Chester (n 24) 58–63.

¹²⁸⁸ *ibid.*; Kim G Poole and others, 'Sea Ice and Migration of the Dolphin and Union Caribou Herd in the Canadian Arctic: An Uncertain Future' (2010) 63 *ARCTIC*

<<http://arctic.journalhosting.ucalgary.ca/arctic/index.php/arctic/article/view/3331>> accessed 29 January 2019.

¹²⁸⁹ Chester (n 24) 58–63.

¹²⁹⁰ 'What Kind of Animals Live in Nunavut?' (n 1282).

the tundra or waters of northern Canada including snowy owls, ptarmigan, peregrine falcons, geese, tundra swans as well as a huge array of ducks, guillemots, terns and murre. ¹²⁹¹

B.4. Species Protection

As has been discussed, Canadian legal authority is split between the federal government and the provinces and territories. ¹²⁹² In terms of authority to legislate in the area of wildlife protection, when the division of power was being agreed prior to Confederation in 1867 there was little interest in the protection of wildlife, or even game species, and therefore no explicit provision was made for the division of authority in the Constitution Act. ¹²⁹³ Authority to manage wildlife has therefore had to be found in other constitutional authority. The federal government has authority to govern in the areas of ‘the regulation of trade and commerce’, ‘Indians and land reserved for Indians’ and ‘the criminal law’ as well as the more general right to ‘to make Laws for the Peace, Order, and good Government of Canada’. ¹²⁹⁴ The federal government also retains the right to legislate for federal lands which include National Parks and Crown lands. ¹²⁹⁵ This limited authority for wildlife protection has led to the federal government acting with a considerable level of deference towards the provinces and territories in this area. ¹²⁹⁶

B.4.1. Species at Risk Act 2002

Despite the deference to provincial and territorial governments, in 2002, in response to its obligations under the Convention of Biological Diversity, Canada passed a federal species protection law. ¹²⁹⁷ This was not the first attempt to pass such an act; previous bills brought before the Houses of Parliament during the 1990s had failed. ¹²⁹⁸ It took over 10 years from Canada signing up to the commitment to pass species protection laws under article 8 of the Convention on Biological Diversity for such legislation to be passed. ¹²⁹⁹ Eventually, in 2002, after much debate regarding the role of the federal and provincial or territorial

¹²⁹¹ *ibid.*

¹²⁹² Constitution Act 1867.

¹²⁹³ *ibid*; John Donihee, *The Evolution of Wildlife Law in Canada* (Canadian Institute of Resources Law 2000) 1.

¹²⁹⁴ Constitution Act 1867 s 91(2),(24),(27); Donihee (n 1293) 5.

¹²⁹⁵ Donihee (n 1293) 5.

¹²⁹⁶ *ibid* 6.

¹²⁹⁷ Convention on Biological Diversity 1992; Species at Risk Act 2002.

¹²⁹⁸ Species at Risk Bill, C-33, 1999-2000; Canada Endangered Species Protection Bill, C-65, 1996-1997.

¹²⁹⁹ Kate Smallwood, *A Guide to Canada's Species at Risk Act* (Sierra Legal Defence Fund 2003) 4–5.

governments, a desire to avoid the level of litigation seen in the United States, the role of science in the decision to list a species and the impact of the provisions on private land, the act was passed.¹³⁰⁰ The act has been described as ‘clearly the product of these policy and jurisdictional debates’.¹³⁰¹ It defines its protections narrowly, mostly providing protection on federal lands and for aquatic species and migratory birds.¹³⁰² Species protection is predominantly left to the provincial and territorial governments.¹³⁰³ The limiting of protection to federal land severely restricts the level of protection in much of Canada but within the Arctic, the Species at Risk Act 2002 has a significant role to play as a much higher proportion of the land belongs to the federal government than in other parts of the country. Many Arctic species also fall under the categories of aquatic species or migratory birds.

The stated purpose of the Species at Risk Act 2002 is to prevent the extirpation or extinction of species found in Canada, to plan for the recovery of species which have been extirpated or are endangered or threatened and to manage species ‘of special concern’ so as to ensure that they do not become endangered.¹³⁰⁴ However, the Species at Risk Act 2002 can only provide protection for species at a federal level. As such, the protection is fairly weak because it only extends to federal lands because the federal government has no right to legislate at a provincial or territorial level.

B.4.1.1. Committee on the Status of Endangered Wildlife in Canada (COSEWIC)

The act established the Committee on the Status of Endangered Wildlife in Canada.¹³⁰⁵ The role of the Committee is to act as an independent advisory committee to the Minister of Environment and Climate Change. It does this by identifying species which could potentially be at risk and assessing the status of those species.¹³⁰⁶ The Committee will then classify each species, according to its level of risk, as ‘extinct, extirpated, endangered, threatened’, of special concern or ‘not currently at risk’.¹³⁰⁷ The Committee is not

¹³⁰⁰ *ibid* 5.

¹³⁰¹ *ibid*.

¹³⁰² *ibid*.

¹³⁰³ *ibid*.

¹³⁰⁴ Species at Risk Act 2002 s 6.

¹³⁰⁵ *ibid* 14.

¹³⁰⁶ *ibid* 15(1).

¹³⁰⁷ *ibid* 15(1)(a).

responsible for listing a species under the act, merely for advising the Minister as to whether or not a species should be listed.¹³⁰⁸ The Committee has been described as ‘a well respected, credible and independent scientific committee’ and Committee members are statutorily obliged to act independently when exercising the discretion given to them.¹³⁰⁹ The Committee is composed of a number of non-political experts, appointed to the committee by the Minister of Environment and Climate Change on the basis of their expertise in conservation biology, genetics, ‘aboriginal traditional knowledge of the conservation of wildlife species’ and other similar scientific disciplines.¹³¹⁰ The committee also has one member from each of the provincial and territorial governments and representatives from the relevant federal government agencies.¹³¹¹ Members are initially appointed to serve for a term of four years but their appointment can be renewed at the end of their term in office.¹³¹²

B.4.1.2. Listing Process

The listing process is initiated either by COSEWIC or by ‘any person’ who makes an application ‘for an assessment of the status of a wildlife species’.¹³¹³ While it is possible for members of the public and non-governmental organisations to apply for an assessment of a species, it is more common for COSEWIC to begin the listing process itself. In order to fulfil the obligation of COSEWIC to ‘determine when wildlife species are to be assessed’, the Species Specialist and Aboriginal Traditional Knowledge subcommittees identify species which are suspected of being at risk and list these species on the Candidate List. The list enables the assessment of species to be prioritised, with the species more likely to become extinct being given priority.¹³¹⁴

Once an application is received or a decision has been made to assess a candidate species identified as potentially being at risk, COSEWIC will produce a status report on the

¹³⁰⁸ Environment and Climate Change Canada, ‘How COSEWIC Works’ (n 498).

¹³⁰⁹ Smallwood (n 1299) 22; Species at Risk Act 2002 s 16(6).

¹³¹⁰ Species at Risk Act 2002 s 16.

¹³¹¹ Environment and Climate Change Canada, ‘COSEWIC Frequently Asked Questions’ (*Government of Canada*, 17 February 2015) <<https://www.canada.ca/en/environment-climate-change/services/committee-status-endangered-wildlife/frequently-asked-questions.html>> accessed 3 July 2018.

¹³¹² Species at Risk Act 2002 s 16(3).

¹³¹³ *ibid* 22(1).

¹³¹⁴ *ibid* 15(1)(b).

species.¹³¹⁵ The report will contain the ‘best available information on the status of a wildlife species, including scientific knowledge, community knowledge and aboriginal traditional knowledge’.¹³¹⁶ The status report is used by COSEWIC to determine whether or not the species should be classified as ‘extinct, extirpated, endangered, threatened’, as a species of special concern or as ‘not currently at risk’.¹³¹⁷ The Committee makes its decision on classification based on ‘the best available information on the biological status of a species’.¹³¹⁸ This information should include ‘scientific knowledge, community knowledge and aboriginal traditional knowledge’ but does not take into account the economic, social or political factors which could be relevant in listing a species.¹³¹⁹ After a status report has been prepared, COSEWIC has one year in which to assess the species, to reach a decision and to provide reasons for the decision it has reached.¹³²⁰

A species will be classified as extirpated when it is a wildlife species which ‘no longer exists in the wild in Canada, but exists elsewhere in the wild’.¹³²¹ For example, the walrus is listed as extirpated because, while populations still exist in Arctic waters, the North West Atlantic population is now extinct.¹³²² A species is considered to be endangered when it is ‘facing imminent extirpation or extinction’ and threatened when it is ‘likely to become an endangered species if nothing is done to reverse the factors leading to its extirpation or extinction’.¹³²³ Examples of Arctic wildlife which are listed as endangered include the Eastern Hudson Bay population of beluga whale and the Eskimo curlew.¹³²⁴ Arctic species which are listed by COSEWIC as threatened include the Peary caribou and the Ross’ gull.¹³²⁵ A species of special concern is the lowest category of listed species. Wildlife will be listed as a species of special concern when it ‘may become threatened or an endangered

¹³¹⁵ *ibid* 21(1).

¹³¹⁶ *ibid* 2(1).

¹³¹⁷ *ibid* 15(1)(a).

¹³¹⁸ *ibid* 15(2).

¹³¹⁹ *ibid*; Environment and Climate Change Canada, ‘How COSEWIC Works’ (n 498); Mooers and others (n 498) 844.

¹³²⁰ Species at Risk Act 2002 s 23(1).

¹³²¹ *ibid* 2(1).

¹³²² Environment and Climate Change Canada, ‘Species Profile (Atlantic Walrus)’ (*Species at Risk Public Registry*, 27 April 2011) <http://www.registrelep-sararegistry.gc.ca/species/speciesDetails_e.cfm?sid=128> accessed 3 July 2018.

¹³²³ Species at Risk Act 2002 s 2(1).

¹³²⁴ ‘Species at Risk Public Registry’ (*Government of Canada*, 27 April 2011) <<http://www.registrelep-sararegistry.gc.ca>> accessed 3 July 2018.

¹³²⁵ *ibid*.

species because of a combination of biological characteristics and identified threats'.¹³²⁶ The polar bear is listed by COSEWIC as a species of special concern.¹³²⁷ While the definitions of the classifications refer to 'wildlife species', this is defined to include animals, plants and other organisms which are 'wild by nature' and is not merely limited to animals.¹³²⁸ In order to be considered to be a wildlife species, a species should have been present within Canada for at least 50 years and should not have been introduced by humans.¹³²⁹ Species are deemed to have been present for 50 years unless there is evidence that this is not the case.¹³³⁰

Although COSEWIC classifies species, it does not have the authority to list species as extirpated, endangered or threatened under the Species at Risk Act 2002.¹³³¹ Instead, it acts as an advisory committee for the Minister of Environment and Climate Change.¹³³² Each year, the committee reports their assessments and status reports to the Minister who then makes recommendations to the Governor in Council as to whether or not a species should be added to the List of Wildlife Species at Risk.¹³³³ Neither the Minister nor the Governor in Council are required to follow the recommendations of COSEWIC; they may follow the recommendation and list the species, decide not to list the species or request further information from COSEWIC and, unlike for COSEWIC, they are not prevented from taking into account economic, social and political factors as well as biological ones.¹³³⁴ As an example, COSEWIC listed the narwhal as a species of special concern in 2004 but it is still not included on the List of Wildlife Species at Risk.¹³³⁵ Similarly, while COSEWIC classified the Eastern Hudson Bay population of beluga whale as an endangered species in 2004, it is not on the List of Wildlife Species at Risk (although other populations of beluga

¹³²⁶ Species at Risk Act 2002 s 2(1).

¹³²⁷ 'Species at Risk Public Registry' (n 1324).

¹³²⁸ Species at Risk Act 2002 s 2(1).

¹³²⁹ *ibid.*

¹³³⁰ *ibid* 2(1),(2).

¹³³¹ *ibid* 27.

¹³³² *ibid.*

¹³³³ *ibid* 2(1), 27; Environment and Climate Change Canada, 'COSEWIC Frequently Asked Questions' (n 1311).

¹³³⁴ Species at Risk Act 2002 s 27.

¹³³⁵ Environment and Climate Change Canada, 'Species Profile (Narwhal)' (*Species at Risk Public Registry*, 27 April 2011) <http://www.registrelep-sararegistry.gc.ca/species/speciesDetails_e.cfm?sid=306> accessed 4 July 2018.

whale are listed).¹³³⁶ Even if a decision is made to follow the recommendation of COSEWIC and list the species, the Governor in Council may list the species in a different category. For example, the Peary Caribou is classified by COSEWIC as threatened but it is listed under the Species at Risk Act as endangered.¹³³⁷ The Governor in Council only has nine months in which to reach a decision regarding a species or the Minister will order that the species be listed in accordance with the recommendation of COSEWIC.¹³³⁸ Once listed, the species will appear in Schedule 1 of the Species at Risk Act 2002.¹³³⁹

In an emergency situation, where it is believed that a species is under an ‘imminent threat to [its] survival’, anybody may apply to COSEWIC for an assessment to decide whether or not the species should be listed as endangered.¹³⁴⁰ Where the Minister believes that there is an ‘imminent threat’ to a species, either on his own initiative or following an assessment by COSEWIC, he must recommend to the Governor in Council that the species be listed as endangered.¹³⁴¹ Where a species is listed on an emergency basis, COSEWIC will prepare a status report within one year so that a decision can be made as to whether the listing was appropriate.¹³⁴²

The process for delisting or reclassifying a species is the same as that for listing it in the first place.¹³⁴³ The Governor in Council may make an order removing the species from the list or placing it in a different category on the recommendation of the Minister following an assessment by COSEWIC.¹³⁴⁴

B.4.1.3. Wildlife Management Boards

As well as considering the assessment of COSEWIC, where there is a wildlife management board in place as a result of a land claims agreement, the Minister must consult the board

¹³³⁶ Environment and Climate Change Canada, ‘Species Profile (Beluga Whale)’ (*Species at Risk Public Registry*, 27 April 2011) <http://www.sararegistry.gc.ca/species/speciesDetails_e.cfm?sid=146> accessed 4 July 2018.

¹³³⁷ Environment and Climate Change Canada, ‘Species Profile (Peary Caribou)’ (*Species at Risk Public Registry*, 27 April 2011) <http://www.sararegistry.gc.ca/species/speciesDetails_e.cfm?sid=823> accessed 4 July 2018.

¹³³⁸ Species at Risk Act 2002 ss 27(1.1), (3).

¹³³⁹ Species at Risk Act 2002, Schedule 1.

¹³⁴⁰ *ibid* 28.

¹³⁴¹ *ibid* 29.

¹³⁴² *ibid* 30.

¹³⁴³ *ibid* 27.

¹³⁴⁴ *ibid*.

when deciding whether or not to list a species.¹³⁴⁵ The Wildlife Management Boards were established under the land claims agreements which settled indigenous land claims and provided for self-government of Nunavut, the Northwest Territories and the Yukon.¹³⁴⁶ The boards, the Nunavut Wildlife Management Board, the Yukon Fish and Wildlife Management Board, the Wildlife Management Advisory Committee (North West Territories), the Wildlife Management Advisory Committee for the Yukon North Slope and others, have expertise in wildlife management in their respective regions.¹³⁴⁷ Each board provides information to the Minister regarding species which are being considered for listing.¹³⁴⁸ For example, in May 2012, COSEWIC designated the grizzly bear as a species of special concern and recommended that it be listed under the Species at Risk Act. Given that the grizzly bear is present across Arctic Canada, the Minister approached the Nunavut Wildlife Management Board in 2013 to ask the board ‘to consider whether or not they wish to make a formal decision on supporting COSEWIC’s proposed listing of grizzly bear as a species of Special Concern on the federal Species at Risk Act’.¹³⁴⁹ The board approved the listing of the grizzly bear although they did not have concerns about population numbers within Nunavut.¹³⁵⁰ The Minister accepted the board’s decision and the western population of the grizzly bear was listed as a Species of Special Concern under the Species at Risk Act on 13 June 2018.¹³⁵¹

B.4.1.4. Prohibited Acts

Once a species has been listed then it will be protected by the prohibitions found in the act. The act makes it unlawful for a person to ‘kill, harm, harass, capture or take an individual of a wildlife species’ where that species has been listed as extirpated, endangered or

¹³⁴⁵ *ibid* 27(2).

¹³⁴⁶ Nunavut Land Claims Agreement Article 5, Part 2; Umbrella Final Agreement between the Government of Canada, the Council for Yukon Indians and the Government of the Yukon ch 16.

¹³⁴⁷ ‘Yukon Fish and Wildlife Management Board’ <<http://yfwmb.ca/>> accessed 4 July 2018; ‘Nunavut Wildlife Management Board’ <<https://www.nwmb.com>> accessed 4 July 2018; ‘Wildlife Management Advisory Council (Yukon North Slope)’ (*Wildlife Management Advisory Council (North Slope)*) <<http://www.wmacns.ca/>> accessed 4 July 2018.

¹³⁴⁸ Species at Risk Act 2002 s 27(2)(c); ‘A Memorandum of Understanding to Harmonize the Designation of Rare, Threatened and Endangered Species under the Nunavut Land Claims Agreement and the Listing of Wildlife Species at Risk under the Species at Risk Act’.

¹³⁴⁹ Environment and Climate Change Canada, ‘Request for a Decision Re Listing of Grizzly Bear as a Species of Special Concern’ (*Government of Canada*, 30 July 2013).

¹³⁵⁰ Nunavut Wildlife Management Board, ‘Decision on Status of Grizzly Bear’.

¹³⁵¹ Species at Risk Act: Order Amending Schedule 1, SOR/2018-112, Canada Gazette Volume 152, Number 12, 13 June 2018; Leona Aglukkak, ‘Response to Nunavut Wildlife Management Board from Minister of the Environment Regarding Grizzly Bear’ (20 May 2014).

threatened.¹³⁵² The act also makes it unlawful to ‘possess, collect, buy, sell or trade’ such a species or part of such a species.¹³⁵³ These prohibitions only apply to federally owned land and the act makes no provision for preventing such activities on non-federal land (see B.4.1.6 below).

In addition to the protections for the species themselves, the act prohibits the damage or destruction of the residence of a species which is endangered or threatened.¹³⁵⁴ A residence is defined as the ‘dwelling place’ of a species used during any part of its ‘life cycle’, including times when it is breeding, feeding or hibernating.¹³⁵⁵ Examples of ‘dwelling places’ include dens and nests as well as ‘other similar area[s]’.¹³⁵⁶ The same protection also applies to the residence of an extirpated species which has been reintroduced into the wild.¹³⁵⁷ While this section of the act protects the nest or den of a protected species, its protection is very narrow, applying only to the immediate residence and not the wider habitat on which the species relies for feeding, travelling, mating, resting and hunting.¹³⁵⁸ These activities will sometimes take place in an area which could be described as a dwelling place in which case the area would be protected, but more often the species will be relying on the wider habitat around its dwelling place and this is not covered by this protection. The protections under section 32 and 33 of the act only apply to species which are listed as extirpated, endangered or threatened.¹³⁵⁹ When a species, such as the polar bear, is listed as a Species of Special Concern, these protections do not apply.¹³⁶⁰

Where the federal government has not listed a species under the Species at Risk Act but a territorial or provincial government has listed a species as either endangered or threatened under its provincial or territorial species protection laws then the Governor in Council can, by order, apply the same protection to those species on federal lands as would apply if those species were listed under the Species at Risk Act.¹³⁶¹ Once such an order is in place, it would be unlawful to kill, harm, harass, capture, take, possess, collect, buy, sell or trade a

¹³⁵² Species at Risk Act 2002 s 32(1).

¹³⁵³ *ibid* 32(2).

¹³⁵⁴ *ibid* 33.

¹³⁵⁵ *ibid* 2(1).

¹³⁵⁶ *ibid*.

¹³⁵⁷ *ibid* 33.

¹³⁵⁸ Benidickson (n 257) 177.

¹³⁵⁹ Species at Risk Act 2002 ss 32, 33.

¹³⁶⁰ *ibid*; Environment and Climate Change Canada, ‘Species Profile (Polar Bear)’ (n 358).

¹³⁶¹ Species at Risk Act 2002 s 36.

species listed by a territorial or provincial government or to destroy or damage its residence while on federal lands.¹³⁶² It does not appear that any orders have been made extending the protection of Arctic species listed by a territory and not by the federal government.¹³⁶³

It is possible to acquire a permit to undertake an activity which would otherwise result in a violation of the act.¹³⁶⁴ Permits can be granted by the Minister of Environment and Climate Change, the Minister in charge of the Parks Canada Agency or the Minister of Fisheries and Oceans for activities relating to scientific research involving the conservation of the relevant species, for activities which ‘benefit the species’ or which are needed to ensure its survival or for activities where the impact on the species is merely incidental.¹³⁶⁵ Before a permit can be issued, the Minister must be satisfied that the alternative solutions have been identified and considered, that ‘all feasible measures will be taken’ to reduce the impact on the species and that the activity will not risk the ‘survival or recovery of the species’.¹³⁶⁶ The Minister will also publish reasons for issuing the permit in the public registry.¹³⁶⁷ Each permit will contain a number of terms and conditions in order to ensure that the permitted activity is carried out with the least possible impact on the species.¹³⁶⁸ A breach of any of these terms and conditions is a criminal offence.¹³⁶⁹ The act also makes an exception for authorised activities ‘related to public safety, health or national security’.¹³⁷⁰

Where a person or corporate body is undertaking a project which requires an environmental impact assessment under the Canadian Environmental Assessment Act 2012, they must alert the Minister if it becomes apparent that the project ‘is likely to affect a listed wildlife species or its critical habitat’.¹³⁷¹ The person should identify all of the impacts on the listed

¹³⁶² *ibid.*

¹³⁶³ Environment and Climate Change Canada, ‘Orders - Species at Risk Public Registry’ (*Government of Canada*, 27 April 2011) <https://www.registrelep-sararegistry.gc.ca/search/advSearchResults_e.cfm?styp=doc&lng=e&advkeywords=&docid=2&startdate=&enddate=&> accessed 6 July 2018.

¹³⁶⁴ Species at Risk Act 2002 s 73(1).

¹³⁶⁵ *ibid* 73(2).

¹³⁶⁶ *ibid* 73(3).

¹³⁶⁷ *ibid* 73(3.1).

¹³⁶⁸ *ibid* 74(6).

¹³⁶⁹ *ibid* 97(1).

¹³⁷⁰ *ibid* 83.

¹³⁷¹ *ibid* 79.

species or its critical habitat and identify measures which should be taken to avoid any harm or reduce the impact on the species.¹³⁷²

B.4.1.5. Enforcement

Offences committed under section 32 or 33 of the act are triable either on indictment (for more serious offences) or summarily (for less serious offences).¹³⁷³ Punishments are draconian. On conviction, the maximum punishment for an individual tried on indictment is a fine of up to 250,000 CAD or imprisonment for five years or both.¹³⁷⁴ For a corporation the maximum fine is 1,000,000 CAD and for a non-profit corporation the maximum fine is 250,000 CAD.¹³⁷⁵ For summary offences, the penalties are a fine of up to 50,000 CAD or a prison sentence of not more than one year or both for an individual, a fine of up to 300,000 CAD for a corporation and a fine of up to 50,000 CAD for a non-profit corporate body.¹³⁷⁶ The level of fine can double for a second or subsequent offence and for offences which last more than one day, the fine can be imposed for each day on which the offence is continued.¹³⁷⁷ If more than one species is involved then a fine can be levelled for each species affected.¹³⁷⁸ The court may also order an additional fine to be paid if the offender has profited from his criminal activity.¹³⁷⁹

Enforcement officers have the power to seize anything which has been taken in contravention of the act or can be prove that the act has been violated.¹³⁸⁰ This would include species, parts of species, such as a pelt, claw, skin, egg or nest, or any item used to commit the offence. The act also makes provision for the court to order than anything seized should be forfeited following conviction under the act.¹³⁸¹ If the specimen is then sold, any proceeds will go to the Crown.¹³⁸²

¹³⁷² *ibid* 79(2).

¹³⁷³ *ibid* 97(1.1).

¹³⁷⁴ *ibid* 97(1.1)(a)(iii).

¹³⁷⁵ *ibid* 97(1.1)(a)(i),(ii).

¹³⁷⁶ *ibid* 97(1.1)(b).

¹³⁷⁷ *ibid* 97(3),(4).

¹³⁷⁸ *ibid* 97(5).

¹³⁷⁹ *ibid* 97(6).

¹³⁸⁰ *ibid* 86(1)(d).

¹³⁸¹ *ibid* 103(1).

¹³⁸² *ibid*.

As well as, and in addition to, the more traditional punishments of a fine or imprisonment, the act empowers the court to make any of a series of orders listed in section 105.¹³⁸³ These orders could, for example, result in the convicted party being prevented from undertaking acts which could ‘result in the continuation or repetition of the offence’, direct the offender to remedy the harm which has been committed, cause him to pay for the cost of any work carried out by a public body to remedy his actions or to pay an amount towards protection of the wildlife species harmed by his offence, lead to the person performing community service or publishing details of the offence so that they are in the public domain.¹³⁸⁴ The court may also make any other order which it considers to be ‘appropriate for securing the person’s good conduct and for preventing the person from repeating the offence or committing other offences’.¹³⁸⁵ The court will take into account the nature of the offence and the circumstances in which it was committed before selecting which orders, if any, are appropriate for a particular offender but they allow for flexibility and for a punishment which fits both the crime and the offender.¹³⁸⁶

Where the Attorney General is of the opinion that it would be appropriate for a programme of alternative measures to be used instead of seeking a conviction, then it is possible, in some circumstances for these to be used.¹³⁸⁷ Alternative measures are a Canadian programme for dealing with some types of criminal offences without resorting to the court system.¹³⁸⁸ Alternative measures can only be used for offences under the Species at Risk Act where the defendant has admitted to the offence and both the defendant and the Attorney General give consent to their use.¹³⁸⁹ Where alternative measures are used, an agreement will be drawn up which will set out how the defendant will make amends for their behaviour.¹³⁹⁰ This can include terms which are similar to those which can be ordered by the court under section 105 of the act and can also include the payment of costs for ensuring compliance with the agreement.¹³⁹¹ If the defendant complies with the agreement then they will not face prosecution.¹³⁹²

¹³⁸³ *ibid* 105.

¹³⁸⁴ *ibid*.

¹³⁸⁵ *ibid* 105(k).

¹³⁸⁶ *ibid* 105.

¹³⁸⁷ *ibid* 108.

¹³⁸⁸ Canada Criminal Code s 717.

¹³⁸⁹ Species at Risk Act 2002 s 108.

¹³⁹⁰ *ibid* 109.

¹³⁹¹ *ibid*.

¹³⁹² *ibid* 108(4).

Despite, or perhaps because of, the severe punishments available for offences committed under the Species at Risk Act, they have not been widely used. In 2017, journalists requesting enforcement data from Environment Canada discovered that there had only been ten successful convictions in the first 13 years of the statute.¹³⁹³ Of these, it seems that none of the convictions were for offences committed against Arctic species.¹³⁹⁴ There are no more recent successful prosecutions under the Species at Risk Act listed on Environment Canada's Enforcement Notifications website.¹³⁹⁵ For the convictions which have taken place, fines have generally been fairly small, almost all fines have been under 10,000 CAD with one prison sentence of nine months and a suspended sentence of four months.¹³⁹⁶ The only larger penalty, of 750,000 CAD was for Canaport LNG Limited Partnership which pleaded guilty to killing up to 7,500 birds from flaring of natural gas from a stack in New Brunswick.¹³⁹⁷ As well as there being very few convictions, to date there have been no alternative measures agreements entered into for offences under the Species at Risk Act.¹³⁹⁸

B.4.1.6. Protection on Federal Lands and Extension to Territorial Lands

Despite the ambitious stated purpose that the Species at Risk Act will prevent the extinction of wildlife species in Canada and promote the recovery of those threatened with extinction, the act itself applies only to species when they are on federal land as the federal government has no authority to legislate for species found on state or territorial land.¹³⁹⁹ For the territories of Yukon, Northwest Territories and Nunavut, the prohibitions found in section 32 and 33 of the Species at Risk Act only apply to land which is under the authority of the

¹³⁹³ 'Just 10 Convictions in Canada in 13 Years under Species-at-Risk Law | Vancouver Sun' <<http://vancouversun.com/news/local-news/a-failure-to-act-just-10-convictions-canada-wide-in-13-years-under-federal-species-at-risk-law>> accessed 2 July 2018.

¹³⁹⁴ *ibid.*

¹³⁹⁵ Environment and Climate Change Canada, 'Enforcement Notifications' (*Government of Canada*, 2018) <<https://www.canada.ca/en/environment-climate-change/services/environmental-enforcement/notifications.html>> accessed 6 July 2018.

¹³⁹⁶ 'Just 10 Convictions in Canada in 13 Years under Species-at-Risk Law | Vancouver Sun' (n 1393); Environment and Climate Change Canada, 'Enforcement Notifications' (n 1395).

¹³⁹⁷ Environment and Climate Change Canada, 'Death of 7500 Migratory Birds Results in \$750,000 Penalty to Canaport LNG Limited Partnership' (*Government of Canada*, 24 November 2015) <<https://www.canada.ca/en/environment-climate-change/services/environmental-enforcement/notifications/death-migratory-birds-canaport-partnership.html>> accessed 6 July 2018.

¹³⁹⁸ Environment and Climate Change Canada, 'Alternative Measures Agreements' (*Species at Risk Public Registry*, 27 April 2011) <http://www.registrelep-sararegistry.gc.ca/sar/permit/alternative_e.cfm> accessed 6 July 2018.

¹³⁹⁹ Species at Risk Act 2002 s 6; Benidickson (n 257) 175.

Minister of Environment and Climate Change or the Parks Canada Agency.¹⁴⁰⁰ The prohibitions, do however, apply to the entire territory for species classed as aquatic species (fish and marine plants) and for migratory birds which are also protected by the Migratory Birds Convention Act 1994.¹⁴⁰¹

Where the Minister of Environment and Climate Change has reason to believe that the laws of the territory are insufficient to protect the species listed under the Species at Risk Act or to protect their dwelling places, he must, after consulting with the territorial minister and any relevant Wildlife Management Board, recommend that the Governor in Council makes an order extending the protection of the Species at Risk Act to the territory.¹⁴⁰² To date, no such orders have been deemed necessary.¹⁴⁰³

B.4.1.7. Recovery Strategy

When a species has been listed as either extirpated, endangered or threatened, the relevant minister, either the Minister of Environment and Climate Change, the Minister in charge of the Parks Canada Agency or the Minister of Fisheries and Oceans is responsible for preparing a recovery strategy.¹⁴⁰⁴ The purpose of the recovery strategy is to identify the needs of a listed species and the threats to its population.¹⁴⁰⁵ A more detailed action plan is then drawn up to specify the measures required for the recovery of the species.¹⁴⁰⁶ The recovery strategy is therefore a broad, overview strategy with the detail being provided in the action plan.¹⁴⁰⁷

The location and type of the species dictates which minister is responsible for preparing the recovery strategy.¹⁴⁰⁸ The Minister in charge of the Parks Canada Agency deals with species 'in or on federal lands administered by' the Parks Canada Agency while the Minister of Fisheries and Oceans has responsibility for aquatic species except those in or on Parks Canada land.¹⁴⁰⁹ The Minister of Environment and Climate Change is responsible

¹⁴⁰⁰ Species at Risk Act 2002 s 35.

¹⁴⁰¹ *ibid* 2(1), 35.

¹⁴⁰² *ibid* 35.

¹⁴⁰³ 'Species at Risk Public Registry' (n 1324).

¹⁴⁰⁴ Species at Risk Act 2002 s 31(1).

¹⁴⁰⁵ Mooers and others (n 498) 844–845.

¹⁴⁰⁶ *ibid*.

¹⁴⁰⁷ Species at Risk Act 2002 s 41(1)(b).

¹⁴⁰⁸ *ibid* 37.

¹⁴⁰⁹ *ibid* 2(1).

for all other species.¹⁴¹⁰ Where a species falls within the remit of more than one minister then they will share responsibility for preparing the recovery strategy.¹⁴¹¹ The minister must also cooperate with various bodies including the territorial government, any federal minister with responsibility over the area where the species is found, any wildlife management board with authority in the area where the species is found, any ‘aboriginal organization’ who may be impacted and anyone else who the ‘minister considers appropriate’.¹⁴¹² There should also be consultation of any landowners or anyone else who might be affected by the recovery strategy and the minister should also consult with the national governments of any other countries in which the species is also found.¹⁴¹³ Where there is a land claims agreement in place, which applies throughout the whole of Arctic Canada, the recovery plan must be prepared ‘in accordance with the provisions’ of the land claim agreement.¹⁴¹⁴

The first stage in preparing the recovery strategy is for the minister to decide whether or not the species is capable of recovery, both technically and biologically.¹⁴¹⁵ The minister will reach this decision after taking into account the ‘best available information’, which will include information provided by COSEWIC.¹⁴¹⁶ If recovery is feasible then a full recovery strategy is prepared.¹⁴¹⁷ This strategy, which must be ‘consistent with information provided by COSEWIC’, will provide a description of the species, determine the needs of the species, identify any threats to the species, be those to its survival or to its habitat, outline a ‘broad strategy to be taken to address those threats’, identify the species’ critical habitat and describe any activities likely to result in the destruction of the critical habitat.¹⁴¹⁸ The strategy will also state the objectives to be reached in terms of population and distribution in order to ensure the survival of the species and will describe any ‘research and management activities’ required in order for those objectives to be met.¹⁴¹⁹ The strategy will identify any additional information which is needed about the species and will

¹⁴¹⁰ *ibid.*

¹⁴¹¹ *ibid* 37(2).

¹⁴¹² *ibid* 39.

¹⁴¹³ *ibid* 39(3).

¹⁴¹⁴ *ibid.*

¹⁴¹⁵ *ibid* 40.

¹⁴¹⁶ *ibid.*

¹⁴¹⁷ *ibid* 41(1).

¹⁴¹⁸ *ibid* 41(1)(a)-(c).

¹⁴¹⁹ *ibid* 41(d).

give a deadline for the preparation of any action plans required.¹⁴²⁰ It is possible to produce a single recovery strategy for a group of related species or for an entire ecosystem.¹⁴²¹ This would make sense where, for example, the threat to a particular habitat results in the listing of a number of species.¹⁴²² Where recovery of the species is deemed not to be feasible then a shorter report will be produced which describes the species, identifies its needs, determines its critical habitat and explains why recovery is not possible.¹⁴²³

Once a recovery strategy has been prepared, a draft version must be published in the public registry which was established under the act to provide access to information relevant to species protection.¹⁴²⁴ Publication must take place within one year of a species being listed as endangered and two years of a species being listed as either threatened or extirpated.¹⁴²⁵ Members of the public are then given 60 days in which to provide comments to the minister regarding the proposed strategy.¹⁴²⁶ The minister then has only 30 days in which to consider the comments, to amend the strategy and to publish the final version in the public registry.¹⁴²⁷

It is the responsibility of the minister to publish a report in the public registry every five years describing the ‘implementation of the recovery strategy’ and what progress is being made to meet the objectives set out in the strategy.¹⁴²⁸ The five yearly reports must be prepared and published until either the objectives are met or the species is deemed to no longer be capable of recovery.¹⁴²⁹

B.4.1.8. Action Plan

While the recovery strategy for a species provides a broad overview of the action needed to ensure the recovery of that species, the action plan provides a detailed scheme setting out the precise measures which need to be taken. The action plan is prepared by the same minister who has responsibility for preparing the recovery strategy and he will do so, in

¹⁴²⁰ *ibid* 41(1)(f)-(g).

¹⁴²¹ *ibid* 41(3).

¹⁴²² *ibid*.

¹⁴²³ *ibid* 41(2).

¹⁴²⁴ *ibid* 42(1), 120.

¹⁴²⁵ *ibid* 42(1).

¹⁴²⁶ *ibid* 43(1).

¹⁴²⁷ *ibid* 43(2).

¹⁴²⁸ *ibid* 46.

¹⁴²⁹ *ibid*.

cooperation and consultation with the same ministers, wildlife management boards, indigenous groups and landowners as for the recovery plan and, as for the recovery plan, must be prepared in accordance with any land claims agreement.¹⁴³⁰

The Species at Risk Act 2002 sets out what must be contained in each action plan.¹⁴³¹ The action plan is designed to be much more detailed than the recovery strategy, containing measures which are to be taken and showing how the recovery of the species will be monitored.¹⁴³² First, the action plan should identify the critical habitat of the species and give ‘examples of activities that are likely to result in its destruction’.¹⁴³³ The identification of the critical habitat is done using the ‘best available information’ and should be in line with the findings of the recovery strategy.¹⁴³⁴ The action plan will then set out the measures which are ‘proposed to be taken to protect the species’ critical habitat’ and any other measures required to meet the objectives of the recovery strategy, in particular any measures to combat the threats to the species which were identified by the recovery strategy as well as deciding on a time frame in which those measures will be adopted.¹⁴³⁵ The action plan should also set out any parts of the critical habitat which will not be subject to any protection measures.¹⁴³⁶ Unlike in the recovery strategy, the action plan should consider the socioeconomic factors relating to the measures to be taken, both in terms of the costs and the benefits.¹⁴³⁷ Without the ability to monitor the success or otherwise of the action plan, there is no way of telling if the plan has been properly implemented, nor if the measures taken have proved appropriate to protect the species and its habitat. The Species at Risk Act 2002 therefore requires the action plan to contain details of the ‘methods to be used to monitor the recovery of the species and its long-term viability’.¹⁴³⁸

The draft action plan must be published in the public registry with 60 days granted for members of the public to submit written comments and remarks regarding the plan to the minister.¹⁴³⁹ After the period for comments has closed, the minister has 30 days in which

¹⁴³⁰ *ibid* 48.

¹⁴³¹ *ibid* 49.

¹⁴³² *ibid*.

¹⁴³³ *ibid* 49(1)(a).

¹⁴³⁴ *ibid*.

¹⁴³⁵ *ibid* 49(1)(b),(d).

¹⁴³⁶ *ibid* 49(1)(c).

¹⁴³⁷ *ibid* 49(1)(e).

¹⁴³⁸ *ibid* 49(1)(d.1).

¹⁴³⁹ *ibid* 50.

to make any changes to the action plan which he considers to be necessary in light of the comments.¹⁴⁴⁰ The final action plan will then be published in the public registry.¹⁴⁴¹ If, for any reason, the action plan has not been finished by the deadline chosen in the recovery strategy, the minister must prepare a summary of the work concluded prior to the deadline and publish the summary in the public registry.¹⁴⁴²

The minister is authorised, indeed s53 of the Species at Risk Act 2002 compels him, to make any necessary regulations to the implementation of the action plan where the action plan relates to a species which is an aquatic species, a migratory bird or a species found on federal land.¹⁴⁴³ Where, however, there is a need for regulations relating to the measures which will protect a critical habitat on federal land, then those regulations should be made under s59 rather than s53.¹⁴⁴⁴ Any regulations which are drafted should be done so with the relevant territorial minister, any wildlife management board and, where land set aside for an indigenous group, the Minister of Indian Affairs and Northern Development.¹⁴⁴⁵

The monitoring of the implementation of the action plan is the responsibility of the minister. The minister will produce, five years after the action plan is agreed, a report setting out the progress of the action plan and an assessment of the ‘ecological and socio-economic impacts’ of the implementation of the action plan.¹⁴⁴⁶

B.4.1.9. Conservation Agreement

In some situations, it is appropriate for the Minister to enter into a conservation agreement with another party to agree conservation measures. Section 11 of the Species at Risk Act 2002 allows for the Minister to enter into such an agreement with any other government in Canada (such as a provincial or territorial government), any organisation or any person where the agreement will ‘benefit a species at risk or enhance its survival in the wild’.¹⁴⁴⁷ The act also allows for a conservation agreement to be entered into in relation to species

¹⁴⁴⁰ *ibid.*

¹⁴⁴¹ *ibid.*

¹⁴⁴² *ibid* 50(4).

¹⁴⁴³ *ibid* 53(1).

¹⁴⁴⁴ *ibid.*

¹⁴⁴⁵ *ibid* 53.

¹⁴⁴⁶ *ibid* 55.

¹⁴⁴⁷ *ibid* 11(1).

which are not at risk.¹⁴⁴⁸ The conservation agreement will set out the agreed measures to be taken to protect the species including, for example, monitoring of the species, implementing a public education scheme, preparing a recovery strategy or action plan, habitat protection and research aimed at supporting species recovery.¹⁴⁴⁹ A funding agreement may also set out the financial contributions of the parties to the agreement, including the contribution of the federal government.¹⁴⁵⁰ Despite the potential for the conservation agreements to give responsibility for conserving species to local governments or communities, with the support of federal funding, there has, to date, been only one conservation agreement finalised.¹⁴⁵¹ In November 2017, the Canadian government entered into an agreement with the provincial government of British Columbia to conserve the Central Mountain Caribou, listed as an endangered species.¹⁴⁵²

B.4.1.10. Critical Habitat

In order to protect wildlife species, it is necessary to protect the land on which they rely for their survival. Like the Endangered Species Act in the United States, in Canada this is done by way of identifying a critical habitat for the species and then providing protections for that habitat. The process, is however, quite different to that used in the United States as the system relies on the identification of the critical habitat in a recovery strategy or action plan rather than on formal designation of the critical habitat. The time which will elapse between initial listing and the protection of the habitat is longer in Canada than in the United States and even once a critical habitat has been established, the protections offered by the Species at Risk Act are limited both in geographical scope and in the level of protection offered. In general, the protections only apply to federal lands, aquatic species and migratory birds. There is a process by which the protection can be extended to provincial and territorial land but this has never yet been used.

A critical habitat is defined by the Species at Risk Act 2002 as ‘the habitat that is necessary for the survival or recovery of a listed wildlife species’.¹⁴⁵³ For a non-aquatic species, a

¹⁴⁴⁸ *ibid* 12(1).

¹⁴⁴⁹ *ibid* 11(2).

¹⁴⁵⁰ *ibid* 13.

¹⁴⁵¹ ‘Canada & BC Reach Historic Agreement to Protect Mountain Caribou—but Will It Be Enough?’ (*Wildsight*, 28 November 2017) <<https://wildsight.ca/blog/2017/11/28/canada-bc-reach-historic-agreement-to-protect-mountain-caribou-but-will-it-be-enough/>> accessed 27 July 2018.

¹⁴⁵² *ibid*.

¹⁴⁵³ Species at Risk Act 2002 s 2(1).

habitat is the land where that species ‘naturally occurs’ or land on which it relies, either directly or indirectly, for its ‘life processes’, such as mating, resting, feeding, hunting, and raising young.¹⁴⁵⁴ A habitat can also be land on which a species used to occur or rely or where there is potential for a species to be reintroduced.¹⁴⁵⁵ The definition for aquatic species is similar and includes spawning grounds, migration routes and their food supply.¹⁴⁵⁶ When drafting a recovery strategy or action plan, the Minister will identify the critical habitat of the species and, once identified, this land will receive the protections found in sections 56 to 64 of the act.¹⁴⁵⁷

As well as identifying the critical habitat, the recovery strategy and action plan will set out specific measures which will be used to protect the habitat of that species. These measures will be specifically designed to combat the particular threats to that habitat. Where such measures have been created and are sufficient to protect the habitat then the protections of the act will not apply. The protections under the act are designed as a safeguard for when there are no other provisions in place to protect land identified as a critical habitat.¹⁴⁵⁸ The aim is that, within 180 days of a critical habitat being identified, there are provisions in place to ensure that habitat’s protection, either from the measures taken under an action plan, from a section 11 agreement, from the act itself or another Act of Parliament or by way of the safeguard found in section 58.¹⁴⁵⁹

The safeguard in section 58 states that ‘no person shall destroy any part of the critical habitat of any listed endangered species or of any listed threatened species’.¹⁴⁶⁰ The protection applies where the species in question is listed as an endangered species, a threatened species or is an extirpated species which has been reintroduced into the wild.¹⁴⁶¹ Despite being a safeguard, section 58 only applies to federal lands and federally protected aquatic species and migratory bird species. Section 58 does not apply to the large proportion of land which is owned by the provinces and territories or is in private ownership.

¹⁴⁵⁴ *ibid.*

¹⁴⁵⁵ *ibid.*

¹⁴⁵⁶ *ibid.*

¹⁴⁵⁷ *ibid* 56–64.

¹⁴⁵⁸ *ibid* 57–58.

¹⁴⁵⁹ *ibid.*

¹⁴⁶⁰ *ibid* 58(1).

¹⁴⁶¹ *ibid.*

There are three ways in which the protection under section 58(1) can be applied to a critical habitat. In the case of a national park, a marine protected area, a migratory bird sanctuary or a national wildlife area, the safeguard applies 90 days after the Minister publishes a notice describing the habitat in the Canada Gazette.¹⁴⁶² He must do this within 90 days of the critical habitat being identified, ensuring that the land is protected within six months of the critical habitat being identified.¹⁴⁶³ In the case of critical habitat on other federal land, in Canada's exclusive economic zone, Canada's continental shelf and for the critical habitat of all aquatic species, the protection under section 58(1) only applies once an order to that effect has been made by the Minister.¹⁴⁶⁴ The Minister is required to make such an order within 180 days of the critical habitat being identified unless there are other legal provisions in place protecting that habitat.¹⁴⁶⁵ If the Minister chooses not to make the order, he should publish a statement in the public registry explaining how the critical habitat will be protected.¹⁴⁶⁶ Thirdly, if the species is a migratory bird protected by the Migratory Birds Convention Act, then the protection of section 58(1) can be extended beyond federal land and federal waters by way of an order of the Governor in Council.¹⁴⁶⁷ The cabinet has the discretion to make such an order on the recommendation of the Minister but is not required to do so.¹⁴⁶⁸ The order can only be made regarding land which is covered by the Migratory Birds Convention Act and there have been arguments that this act only applies to the nests of birds and not to any broader habitat.¹⁴⁶⁹ While this point has not been tested, if it were the case that the safeguard only applies to nests outside of federal land, it makes the protection very weak. In cases where the Minister believes that the land affected by an order made under section 58 would affect a territory, indigenous land or land subject to a lands claim agreement, he should consult the relevant territorial minister, the Minister of Indian Affairs and Northern Development, any relevant indigenous band, any relevant wildlife management board and any other relevant federal ministers before making any order or recommendation that the cabinet make an order.¹⁴⁷⁰

¹⁴⁶² *ibid* 58(2),(3).

¹⁴⁶³ *ibid*.

¹⁴⁶⁴ *ibid* 58(1), (4), (5).

¹⁴⁶⁵ *ibid* 58(5).

¹⁴⁶⁶ *ibid* 58(2),(3).

¹⁴⁶⁷ *ibid* 58(5.1), (5.2).

¹⁴⁶⁸ *ibid*.

¹⁴⁶⁹ *ibid* 58(5.1); Smallwood (n 1299) 32.

¹⁴⁷⁰ Species at Risk Act 2002 ss 58(6)-(9).

The Species at Risk Act 2002 also acknowledges the need to protect the critical habitats of species which are listed as endangered or threatened by a provincial or territorial government when that species is found on federal land.¹⁴⁷¹ Section 60 makes it unlawful to ‘destroy any part of the habitat’ of such a species when an order has been made by the Governor in Council protecting the land.¹⁴⁷² The Governor in Council can make an order on the recommendation of the Minister regarding any federal land in the relevant province or territory which is ‘essential to the survival or recovery of the species’.¹⁴⁷³ The Governor in Council may also make an order protecting a federally listed endangered or threatened species which is on non-federal land in a territory or province.¹⁴⁷⁴ The power to do this is, however, limited to situations where a provincial or territorial minister has made a request for such an order or where the Canadian Endangered Species Conservation Council has recommended that an order be made and where there are no other federal, provincial or territorial laws protecting the species’ critical habitat.¹⁴⁷⁵

In addition, the Species at Risk Act 2002 makes provision for regulations to be made in order to protect critical habitat situated on federal land, allows for the acquire land for the protection of critical habitat and enables the payment of compensation to anyone who incurs a loss as a result of an order made for the protection of a critical habitat.¹⁴⁷⁶

The protections for critical habitat are reliant on the identification of the habitat in a recovery strategy or action plan. As these do not need to be prepared for up to two years after the initial listing of a species (one year of endangered species) and there are no interim protection measures, there can be a significant delay in protecting the habitat of species already identified as at risk of extinction.¹⁴⁷⁷

¹⁴⁷¹ *ibid* 60.

¹⁴⁷² *ibid*.

¹⁴⁷³ *ibid*.

¹⁴⁷⁴ *ibid* 61.

¹⁴⁷⁵ *ibid*.

¹⁴⁷⁶ *ibid* 59, 62, 64.

¹⁴⁷⁷ *ibid* 42; Smallwood (n 1299) 30.

B.4.1.11. Management of Species of Special Concern

The provisions outlined above only apply to species listed as extirpated, endangered or threatened. Where a species is not considered to require the protections of listing under one of those headings, it may be listed as a Species of Special Concern.¹⁴⁷⁸ This designation provides a lower level of protection and does not require a recovery strategy or action plan to be prepared, neither does it result in the identification of critical habitat. Instead, the Minister must prepare a management plan for a species of special concern and for the habitat in which the species resides.¹⁴⁷⁹ The management plan, drafted in cooperation with ministers, wildlife management boards and indigenous groups and in consultation with landowners and other interested parties, will set out the ‘measures for the conservation of the species that the competent minister considers appropriate’.¹⁴⁸⁰ The plan may apply to a single species or may be prepared using a multiple species or ecosystem based approach where such an approach would be appropriate.¹⁴⁸¹ Management plans must be prepared within three years of a species being listed as a species of special concern.¹⁴⁸² Once drafted, the proposed management plan should be published in the public registry and members of the public should be given 60 days in which to submit written comments.¹⁴⁸³ The minister has 30 days following this period to address the written comments, make any necessary changes to the management plan and publish the final plan in the public registry.¹⁴⁸⁴ Management plans are monitored by the minister and, every five years, a report on the progress should be prepared and published in the public registry.¹⁴⁸⁵

B.4.1.12. Effect of the Act

As of 3 August 2018, there were 632 listed species across the whole of Canada.¹⁴⁸⁶ Of these, there were 23 extirpated species, 268 endangered species, 142 threatened species and 199 species of special concern.¹⁴⁸⁷

¹⁴⁷⁸ Species at Risk Act 2002 ss 2(1), 15(1)(a)(i), 27.

¹⁴⁷⁹ *ibid* 65.

¹⁴⁸⁰ *ibid* 65, 66.

¹⁴⁸¹ *ibid* 65, 67.

¹⁴⁸² *ibid* 68(1).

¹⁴⁸³ *ibid* 68(3).

¹⁴⁸⁴ *ibid* 68(4).

¹⁴⁸⁵ *ibid* 72.

¹⁴⁸⁶ Environment and Climate Change Canada, ‘A to Z Species Index’ (*Species at Risk Public Registry*, 2018) <http://www.registrelep-sararegistry.gc.ca/sar/index/default_e.cfm?styp=species&lng=e&index=1&common=&scientific=&population=&taxid=0&locid=0&desid=0&schid=0&desid2=5&> accessed 3 August 2018.

¹⁴⁸⁷ *ibid*.

In the Arctic there are far fewer listed species. There are four species listed as endangered, the Peary caribou and three bird species, the red knot, Eskimo curlew and ivory gull.¹⁴⁸⁸ There are a further eight species listed as threatened. This list includes two mammals, the Cumberland Sound population of beluga whale and the boreal population of the woodland caribou, one species of fish, the Northern wolfish and five species of bird.¹⁴⁸⁹ In addition to these, 14 species are listed as species of special concern, including the polar bear, the bowhead whale, the western population of wolverine and the short-eared owl.¹⁴⁹⁰

As the Species at Risk Act 2002 is much newer than its equivalent in the United States, there have been fewer studies into the effects of the act, as they cannot really yet be known. In the early studies which have been conducted, some criticisms of the way that the critical habitat parts of the act have been implemented have emerged. Bird and Hodges, writing in 2017 found that the implementation of the critical habitat provisions of the Species at Risk Act 2002 has been poor, with only 11.8% of listed species having a fully designated critical habitat in August 2015.¹⁴⁹¹ They characterised the execution of this part of the act as being ‘slow, biased and incomplete’.¹⁴⁹² Another two reviews have discovered that there is a bias against listing species in the north of Canada, which affects the Arctic species. In 2007, Mooers identified a bias against the listing of species ‘with a northern distribution’ and against species which are harvested.¹⁴⁹³ Building on that work, Findlay et al discovered that the bias was more of a ‘Nunavut effect’ with species resident in Yukon and the Northwest Territories listed at similar rates to more southern species but species in Nunavut listed significantly less frequently.¹⁴⁹⁴ There are a number of possible reasons for this, including an unwillingness of the Nunavut Wildlife Management Board to accept federal listing within their sphere of authority.¹⁴⁹⁵ It is however, also likely that the structure of the Species at Risk Act 2002 provides a disincentive to list species in the north which are relied upon for subsistence harvesting or commercial harvesting.¹⁴⁹⁶ When a species is

¹⁴⁸⁸ *ibid.*

¹⁴⁸⁹ *ibid.*

¹⁴⁹⁰ *ibid.*

¹⁴⁹¹ Bird and Hodges (n 626) 4.

¹⁴⁹² Bird and Hodges (n 626).

¹⁴⁹³ Mooers and others (n 487).

¹⁴⁹⁴ C Scott Findlay and others, ‘Species Listing under Canada’s Species at Risk Act’ 23 *Conservation Biology* 1609.

¹⁴⁹⁵ *ibid* 1615.

¹⁴⁹⁶ *ibid* 1616.

listed, except as a species of special concern, it is immediately protected from harvesting by the prohibitions under sections 32 and 33.¹⁴⁹⁷ There are no exceptions and no nuance so it is not possible for permits to be issued to indigenous people or communities to allow for subsistence hunting, even when this could be achieved sustainably.¹⁴⁹⁸ There is, therefore, an understandable reluctance to list species which are otherwise used for food, especially in the Arctic where there are few other alternatives, because the socio-economic impacts would be too great.¹⁴⁹⁹ Unfortunately this leads to species either not being listed at all or only being listed as Species of Special Concern and neither status provides sufficient protection for vulnerable species. Findlay et al recommended that permits should be allowed for indigenous subsistence hunting where ‘harvest is consistent with the species’ survival and recovery’ so as to reduce the risk of otherwise vulnerable species receiving no protection at all because of the socio-economic repercussions of listing a species upon which people rely for food.¹⁵⁰⁰

B.4.2. Migratory Birds Convention Act 1994

The Migratory Birds Convention signed between the USA and Canada in 1916 applies in Canada in the same way as it applies within the USA (see appendix A.4.4 above).¹⁵⁰¹ The Convention, aimed at preserving migratory birds at risk of extinction, saw the USA and Canada agreeing to establish periods during nesting and migrating seasons when migratory birds would be protected.¹⁵⁰² The current law which incorporates the convention in federal Canadian law is the Migratory Birds Convention Act 1994, the purpose of which is to implement the convention and to protect and conserve migratory birds and their nests.¹⁵⁰³ It applies throughout Canada, on federal, provincial and territorial land.¹⁵⁰⁴ The act itself is fairly simple; it introduces two main prohibitions and then leaves the Migratory Birds Regulations to provide for exceptions.¹⁵⁰⁵ The act firstly prohibits anyone from possessing, buying, selling, exchanging or giving another person a migratory bird or the nest of a migratory bird and secondly prohibits a vessel in Canadian waters from depositing any

¹⁴⁹⁷ Species at Risk Act 2002 ss 32, 33.

¹⁴⁹⁸ *ibid.*

¹⁴⁹⁹ *ibid.*

¹⁵⁰⁰ *ibid.*

¹⁵⁰¹ Convention Between the United States and Great Britain for the Protection of Migratory Birds 1916.

¹⁵⁰² *ibid.*

¹⁵⁰³ Migratory Birds Convention Act 1994 s 4.

¹⁵⁰⁴ *ibid* 2.1, 3.

¹⁵⁰⁵ *ibid* 5, 5.1; Migratory Birds Regulations, Consolidated Regulations of Canada 1035.

substance in the water which could be harmful to migratory birds.¹⁵⁰⁶ Migratory birds are defined as per the Migratory Birds Convention which lists migratory game birds (such as, in Arctic Canada, wild ducks, geese and plovers), migratory insectivorous birds (such as swallows and warblers) and migratory nongame birds (such as gulls, murre and loons) by name.¹⁵⁰⁷ The convention, and the act, do not cover all species of migratory birds as not all migratory birds were considered desirable and necessary for humans when the convention was signed.¹⁵⁰⁸ Birds, such as owls and hawks, which are not protected under the act are protected via the other species protection measures discussed in this chapter.¹⁵⁰⁹

The exceptions to the general rules on possessing or transferring a migratory bird are found in the Migratory Birds Regulations.¹⁵¹⁰ The regulations provide for permits to be issued which authorise actions which would otherwise be a breach of section 5 of the Migratory Bird Convention Act 1994.¹⁵¹¹ The primary type of permit which is issued is a migratory game hunting permit (which requires an attached wildlife habitat conservation stamp) although other permits, such as a scientific permit or an eiderdown collection permit are also available.¹⁵¹² The regulations prohibit the hunting of migratory birds without a permit.¹⁵¹³ The only exception to this is for indigenous hunters who may take migratory game birds or certain non-game sea birds such as guillemots and murre without needing a permit.¹⁵¹⁴ The regulations also prescribe an open season, which is the only time during which migratory birds may be hunted.¹⁵¹⁵ For example, the open season for all types of duck, goose, coot and snipe in both Nunavut and Northwest Territories is 1 September to 1 December.¹⁵¹⁶ The regulations also specify bag limits and possession limits.¹⁵¹⁷ No one is allowed to hunt more individual birds in one day than the bag limit and no one is allowed

¹⁵⁰⁶ Migratory Birds Convention Act 1994 ss 5, 5.1.

¹⁵⁰⁷ Convention Between the United States and Great Britain for the Protection of Migratory Birds 1916; Migratory Birds Convention Act 1994 s 2(1).

¹⁵⁰⁸ Environment and Climate Change Canada, 'Frequently Asked Questions - Migratory Birds Convention Act' (*Government of Canada*, 7 November 2017) <<https://www.canada.ca/en/environment-climate-change/services/migratory-birds-legal-protection/frequently-asked-questions.html>> accessed 13 February 2019.

¹⁵⁰⁹ *ibid.*

¹⁵¹⁰ Migratory Birds Regulations s 12.

¹⁵¹¹ Migratory Birds Convention Act 1994 s 5; Migratory Birds Regulations s 4.

¹⁵¹² Migratory Birds Regulations s 4, Schedule II.

¹⁵¹³ *ibid* 5(1), (3).

¹⁵¹⁴ *ibid* 5(6), (8), (10).

¹⁵¹⁵ *ibid* 5(4).

¹⁵¹⁶ Migratory Birds Regulations, Schedule I, Part XI, Table I, Part XIII, Table I.

¹⁵¹⁷ *ibid* 7–10.

to have in their possession more birds than the possession limit.¹⁵¹⁸ The limits are listed in Schedule I of the regulations, and, for example, allow a Canadian resident to kill up to 15 Brant and 50 snow geese in one day with no possession limit in Nunavut, Northwest Territories and Northern Yukon.¹⁵¹⁹ As a general rule, with the exception of sandhill cranes, there are no possession limits for Canadian residents in the Arctic regions of the northern territories but possession limits do apply for non-residents of Canada.¹⁵²⁰ The regulations also prohibit the use of bait when hunting migratory birds, specify the types of weapon which may be used and require the hunter to ensure that they are able to retrieve any killed or injured bird.¹⁵²¹

The rules under the Migratory Birds Act 1994 and the regulations are enforced by way of either compliance orders or by way of criminal prosecutions.¹⁵²² Compliance orders can be issued by game officers who have reasonable grounds to believe that the act or a regulation is being breached or will be breached.¹⁵²³ The order will direct the person responsible to take reasonable action to protect and conserve migratory birds or to refrain from action which could harm such birds.¹⁵²⁴ Orders must be in writing and can endure for up to 180 days.¹⁵²⁵ Compliance orders are aimed at preventing harm or further harm from occurring but where a provision of the act or regulations made under the act has been contravened, the person will have committed a criminal offence.¹⁵²⁶ The punishments are complicated and range from a fine of between 5,000 CAD and 300,000 CAD and/or a term of imprisonment of up to six months for an individual who commits a first offence and is summarily convicted, to a maximum fine of 12,000,000 CAD for a large vessel which commits a second or subsequent offence and is convicted on indictment.¹⁵²⁷ Maximum fines for individuals can be as high as 2,000,000 CAD for second and subsequent offences and prison sentences can be as high as three years although the court can impose lower fines in cases where even the minimum fine would cause ‘undue financial hardship’ which could often be the case for indigenous or subsistence hunters who have committed an

¹⁵¹⁸ *ibid.*

¹⁵¹⁹ Migratory Birds Regulations, Schedule I, Part XI, Table II, Part XII, Table II, Part XIII, Table II.

¹⁵²⁰ *ibid.*, Schedule I, Part XI, Table II, Part XII, Table II, Part XIII, Table II.

¹⁵²¹ *ibid.* 14–16.

¹⁵²² Migratory Birds Convention Act 1994 ss 11.21, 13–18.

¹⁵²³ *ibid.* 11.21.

¹⁵²⁴ *ibid.*

¹⁵²⁵ *ibid.* 11.21 (4), (5).

¹⁵²⁶ *ibid.* 13(1), 13.01.

¹⁵²⁷ *ibid.* 13-13.04.

offence.¹⁵²⁸ Where a person or company has financially benefitted from their offence then an additional fine, of the amount which they have gained, can be imposed to ensure that they cannot profit from their offence.¹⁵²⁹ The courts may also make any order they see fit to ensure that the damage caused is ameliorated and any future harm is avoided.¹⁵³⁰ Unusually the act includes a clause setting out the ‘fundamental purpose of sentencing’ for offences relating to migratory birds.¹⁵³¹ This states that, recognising the ‘social, cultural and environmental importance of migratory birds’, sentencing should aim to lead to respect for the laws protecting such birds and to ‘the imposition of just sanctions’.¹⁵³²

B.4.3. Marine Mammal Regulations 1993

The ‘management and control’, as well as the ‘conservation and protection’ of marine mammals is regulated by the Marine Mammal Regulations 1993 which were issued under the authority of the Fisheries Act 1985.¹⁵³³ The act applies to all cetaceans (whales, dolphins and porpoises), seals and walruses found in Canada and Canadian fishing waters (defined as the fishing zones, territorial waters and internal waters).¹⁵³⁴ It does not, however, apply to polar bears, unlike the Marine Mammal Protection Act in the USA.¹⁵³⁵ Separate provisions are made for beluga whales, bowhead whales, right whales narwhals while other types of whale are dealt with together.¹⁵³⁶ Generally, the regulations prohibit a person from fishing for a marine mammal or from disturbing a marine mammal without a licence.¹⁵³⁷ The exception to this is that indigenous people and the beneficiaries of certain land claim agreements may fish for seal, cetaceans (except the ones for which separate provisions are made) and up to four walruses in a year, without a licence, as long as they are fishing for ‘food, social or ceremonial purposes’.¹⁵³⁸ Indigenous people are required to obtain a licence to hunt beluga whales, bowhead whales and narwhal, although only Inuk are entitled to receive a licence for narwhal hunting.¹⁵³⁹ Those living next to the coast in

¹⁵²⁸ *ibid* 13(2)(a)(ii), 13.07.

¹⁵²⁹ *ibid* 13.07.

¹⁵³⁰ *ibid* 16.

¹⁵³¹ *ibid* 13.09.

¹⁵³² *ibid*.

¹⁵³³ Marine Mammal Regulations 1993; Fisheries Act 1985.

¹⁵³⁴ Marine Mammal Regulations 1993 s 4; Fisheries Act 1985 s 2(1).

¹⁵³⁵ Marine Mammal Protection Act of 1972,.

¹⁵³⁶ Marine Mammal Regulations 1993 s 4.

¹⁵³⁷ *ibid* 4, 5, 7.

¹⁵³⁸ *ibid* 6; Inuvialuit Final Agreement 1984.

¹⁵³⁹ Marine Mammal Regulations 1993 ss 4(2), 6.

the northern sealing areas (which covers all of the Arctic) may fish for seals for food without needing a licence.¹⁵⁴⁰

While licences to fish for marine mammals are available, there are strict annual quotas for many species.¹⁵⁴¹ Once the quota is fulfilled and a fishery officer has given notice of this, no further fishing for that species is allowed.¹⁵⁴² For bowhead whales, the annual quota is either one taken whale or two strikes (whales which are wounded but which cannot be recovered), whereas for narwhal, there are quotas for each settlement, up to a maximum of 100 narwhal for the communities of Arctic Bay and Pond Inlet.¹⁵⁴³ Fishing for beluga, bowhead or narwhal calves is not allowed and neither is fishing for adult whales which are with a calf.¹⁵⁴⁴ For sealing in the northern sealing areas, a licence is required (either a personal one, a commercial one or one to deal only with nuisance seals) but there are few other limitations.¹⁵⁴⁵ There is no commercial sealing of baby harp seals and hooded seals allowed but the closed seasons and other restrictions which apply to sealing on the Canadian East coast do not apply in the Arctic.¹⁵⁴⁶ There is a total allowable catch established but in recent years, with the collapse of the seal skin industry, these limits have not been met.¹⁵⁴⁷

The regulations contain rules on the methods of killing a marine mammal to ensure that the hunt is as humane as possible¹⁵⁴⁸. Anyone killing a marine mammal must do so in a way which is swift and must have the ability, and make reasonable effort, to retrieve it from the water.¹⁵⁴⁹ The regulations also specify the types of weapons which may be used, in particular for hunting cetaceans and walrus.¹⁵⁵⁰ In order to protect marine mammals, the

¹⁵⁴⁰ *ibid* 6(3).

¹⁵⁴¹ *ibid* 5.

¹⁵⁴² *ibid* 21(b), 22(b), 23, 26, Schedule II.

¹⁵⁴³ *ibid* 17, 22, 23.

¹⁵⁴⁴ *ibid* 18.

¹⁵⁴⁵ *ibid* 26.1.

¹⁵⁴⁶ *ibid* 27, 34.

¹⁵⁴⁷ Daniele Lafrance, 'Canada's Seal Harvest' (2017) 2017-18-E Library of Parliament Background Paper 8–9 <https://lop.parl.ca/sites/PublicWebsite/default/en_CA/ResearchPublications/201718E> accessed 14 February 2019.

¹⁵⁴⁸ Fisheries and Oceans Canada, 'Ensuring the Seal Harvest Is Humane' (*Government of Canada*, 1 March 2016) <<http://www.dfo-mpo.gc.ca/fm-gp/seal-phoque/humane-sans-cruaute-eng.htm>> accessed 14 February 2019.

¹⁵⁴⁹ Marine Mammal Regulations 1993 ss 8–10.

¹⁵⁵⁰ *ibid* 19, 25.

regulations prohibit the disturbing of any marine mammal.¹⁵⁵¹ They do this through a general prohibition on disturbing marine mammals which defines disturbing an animal to include approaching it, feeding it, attempting to swim with it, move it, separating it from a group, separating a mother and calf, trapping it with a vessel and tagging or marking it.¹⁵⁵² The regulations also define disturbing an animal as getting too close; the regulations specify the minimum distance which any vehicle must maintain from different marine species.¹⁵⁵³

A breach of the Marine Mammal Regulations 1993 is an offence under the Fisheries Act 1985.¹⁵⁵⁴ Such an offence is punishable by a fine up to a maximum of 500,000 CAD for a first offence and a fine of up to 500,000 or a term of imprisonment of not more than two years, or both, for a second or subsequent offence.¹⁵⁵⁵ In addition to these punishments the court may make any order it sees fit to ensure that the harm caused by the offence is ameliorated or to prevent any future offending.¹⁵⁵⁶

B.4.4. Territorial Species Protection

Much of the species protection in Arctic Canada is controlled by the territories themselves. Each of the three Arctic territories has its own rules on the protection of certain species and provides limits on the hunting and destruction of species which can take place within the territory. In 1996, a National Accord for the Protection of Species was signed, committing the federal government and each of the provinces and territories to take action to protect species at risk.¹⁵⁵⁷ The accord acknowledges that ‘species do not recognize jurisdictional boundaries’ and that the various governments within Canada must cooperate to ensure that species are protected and conserved.¹⁵⁵⁸ The accord requires the territories and provinces to introduce legislation which provides for the assessment and identification of species at risk and which will ensure the protection of such species and their habitats.¹⁵⁵⁹

¹⁵⁵¹ *ibid* 7.

¹⁵⁵² *ibid* 7(2).

¹⁵⁵³ *ibid* 7(3), Schedule 6.

¹⁵⁵⁴ Marine Mammal Regulations 1993; Fisheries Act 1985 s 78.

¹⁵⁵⁵ Fisheries Act 1985 s 78.

¹⁵⁵⁶ *ibid* 79.2.

¹⁵⁵⁷ National Accord for the Protection of Species at Risk 1996; Environment and Natural Resources, ‘Species at Risk’ <<https://www.enr.gov.nt.ca/en/node/365>> accessed 12 February 2019.

¹⁵⁵⁸ National Accord for the Protection of Species at Risk.

¹⁵⁵⁹ *ibid*.

Within the Arctic regions of the territories of northern Canada, the land claim agreements play an important role in the protection of species.¹⁵⁶⁰ Most of the land claim agreements establish wildlife management boards which have the primary responsibility for wildlife management and protection on land which is subject to the land claim agreement.¹⁵⁶¹ The land claim agreements also set out the rights of the beneficiaries to harvest species from the land and the ways in which this right can be limited.¹⁵⁶² The various territorial rules and regulations on species protection and hunting are made subject to the land claim agreements which generally take precedent.

B.4.4.1. Yukon

Section 18 of the Yukon Act 2002 gives the legislature of the Yukon territory the right to legislate in the area of ‘the conservation of wildlife and its habitat, other than in a federal conservation area’.¹⁵⁶³ The Yukon legislature passed the Wildlife Act in 2002 and amended it in 2009.¹⁵⁶⁴ The act provides for the protection of certain species and provides limits on hunting and trapping of wildlife within the territory of the Yukon.¹⁵⁶⁵ In addition to the act, the Inuvialuit Final Agreement covers the north slope of the Yukon as well as a much larger area of the Arctic Archipelago beyond the Yukon.¹⁵⁶⁶ Further south in the Yukon, the Gwich’in Comprehensive Land Claim Agreement and the Yukon Umbrella Agreement apply.¹⁵⁶⁷ The Yukon Umbrella Agreement led to the creation of the Yukon Fish and

¹⁵⁶⁰ Gwich’in Comprehensive Land Claim Agreement 1992; Satu Dene and Métis Comprehensive Land Claim Agreement 1993; Tłıchǫ Land Claims Agreement 2003; Nunavut Land Claims Agreement; Umbrella Final Agreement between the Government of Canada, the Council for Yukon Indians and the Government of the Yukon; Inuvialuit Final Agreement 1984.

¹⁵⁶¹ Gwich’in Comprehensive Land Claim Agreement 1992; Satu Dene and Métis Comprehensive Land Claim Agreement 1993; Tłıchǫ Land Claims Agreement 2003; Nunavut Land Claims Agreement; Umbrella Final Agreement between the Government of Canada, the Council for Yukon Indians and the Government of the Yukon; Inuvialuit Final Agreement 1984.

¹⁵⁶² Gwich’in Comprehensive Land Claim Agreement 1992; Satu Dene and Métis Comprehensive Land Claim Agreement 1993; Tłıchǫ Land Claims Agreement 2003; Nunavut Land Claims Agreement; Umbrella Final Agreement between the Government of Canada, the Council for Yukon Indians and the Government of the Yukon; Inuvialuit Final Agreement 1984.

¹⁵⁶³ Yukon Act 2002 s 18.

¹⁵⁶⁴ Yukon Wildlife Act 2002.

¹⁵⁶⁵ *ibid.*

¹⁵⁶⁶ Inuvialuit Final Agreement 1984.

¹⁵⁶⁷ Gwich’in Comprehensive Land Claim Agreement 1992; Umbrella Final Agreement between the Government of Canada, the Council for Yukon Indians and the Government of the Yukon.

Wildlife Management Board which has responsibility for wildlife protection within the Yukon.¹⁵⁶⁸

B.4.4.1.1. Species Protection

While the federal Species at Risk Act 2002 applies to a certain extent within the Yukon, on land which is the responsibility of the federal government, there is no territorial species at risk legislation in place.¹⁵⁶⁹ The territory relies on the Yukon Wildlife Act 2002 but this contains only minimal provisions for the protection of particular species.¹⁵⁷⁰ The Yukon Wildlife Act 2002 defines wildlife to mean ‘a vertebrate animal of any species or type that is wild by nature, and includes wildlife in captivity, but does not include fish or a species of animal prescribed by the regulations not to be wildlife’.¹⁵⁷¹ This is a very narrow definition and there are no equivalent protections for flora or for fauna which do not fall within the remit of the act, such as invertebrates. In terms of species protection, the main provision in the Yukon Wildlife Act 2002 is section 8 which provides protection for species designated as ‘specially protected wildlife’.¹⁵⁷² A species gains ‘specially protected’ status through designation by way of regulation.¹⁵⁷³ There are currently four specially protected species, designated under the Wildlife Regulations, Schedule A, Part 5, namely the cougar, gyrfalcon, peregrine falcon and trumpeter swan.¹⁵⁷⁴ It is unlawful to hunt, trap or possess one of these species without a permit.¹⁵⁷⁵ The only exception to this is where the hunter or trapper is an Inuvialuk who is entitled to hunt or trap a specially protected species, having been allocated part of a total allowable harvest established by the Minister.¹⁵⁷⁶ While there have been a few designated species, there are none of the protections similar to those found under the Species at Risk Act such as the preparation of a recovery strategy or the designation of a critical habitat.

¹⁵⁶⁸ Umbrella Final Agreement between the Government of Canada, the Council for Yukon Indians and the Government of the Yukon; ‘Mission, Powers, and Responsibilities - Yukon Fish and Wildlife Management Board’ <<http://yfwmb.ca/about/mission-powers-and-responsibilities/>> accessed 7 February 2019.

¹⁵⁶⁹ Species at Risk Act 2002.

¹⁵⁷⁰ Yukon Wildlife Act 2002.

¹⁵⁷¹ *ibid* 1.

¹⁵⁷² *ibid* 8.

¹⁵⁷³ *ibid* 1.

¹⁵⁷⁴ Wildlife Regulation — Yukon Regulation O.I.C. 2012/84, Schedule A, Part 5.

¹⁵⁷⁵ Yukon Wildlife Act 2002 s 8.

¹⁵⁷⁶ *ibid* 207.

There are protections for some types of birds within the Yukon. Where a bird is not protected by the Migratory Birds Convention Act 1994, it is unlawful to ‘destroy, take or possess any egg or nest of a bird that belongs to a species that is wild in nature’, unless the person doing so possesses a permit to do so.¹⁵⁷⁷

The only other species protection in the Yukon is the general prohibition on harassing wildlife which is found in section 92 of the Yukon Wildlife Act 2002.¹⁵⁷⁸ Harassing is defined as including worrying, exhausting, fatiguing, annoying, plaguing, pestering, teasing and tormenting that animal.¹⁵⁷⁹ The act prohibits capturing, handling or manipulating wildlife, using a vehicle or a boat to harass an animal or interfering with an animal crossing a road or river.¹⁵⁸⁰ The act also prohibits a person from allowing a dog to chase a big game animal (such as a polar bear, wolverine or moose), a specially protected wildlife species or a fur bearing animal (such as an Arctic fox, beaver or wolf).¹⁵⁸¹

B.4.4.1.2. Hunting

In addition to the species protection found in the Yukon Wildlife Act 2002, however limited, there is a general prohibition on the hunting and trapping of any species of wildlife within the Yukon, except where permitted under the terms of the Yukon Wildlife Act 2002.¹⁵⁸² All hunters and trappers within the Yukon are required to apply for an annual hunting licence, and to carry it with them when they are hunting or trapping.¹⁵⁸³ Separate licences are available for those who wish to hunt small game and those who wish to hunt both small and big game although hunters may only hold one type of licence in each year.¹⁵⁸⁴ Non-residents of the Yukon are entitled to apply for a hunting licence but may only hunt big game when accompanied by an approved hunting guide.¹⁵⁸⁵ As well as a hunting licence, hunters of big game, which includes species such as black bears, grizzly bears, moose and caribou, need to obtain a seal for the type of animal which they wish to

¹⁵⁷⁷ *ibid* 17.

¹⁵⁷⁸ *ibid* 92.

¹⁵⁷⁹ *ibid* 1.

¹⁵⁸⁰ *ibid* 92.

¹⁵⁸¹ *ibid* 92(2)(b); Wildlife Regulation — Yukon Regulation O.I.C. 2012/84, Schedule A, Parts 1, 2, 5.

¹⁵⁸² Yukon Wildlife Act 2002 s 6.

¹⁵⁸³ *ibid* 7, 108, 114.

¹⁵⁸⁴ *Yukon Hunting Regulations Summary 2018-2019* (n 259) 3.

¹⁵⁸⁵ Yukon Wildlife Act 2002 s 40.

hunt.¹⁵⁸⁶ Once killed, the seal is attached to the carcass of the animal.¹⁵⁸⁷ Seals are issued in accordance with the stipulated bag limits which limit the number of a particular species which each hunter may take.¹⁵⁸⁸ Bag limits differ for particular species, ranging from one grizzly bear for every three licensing years to one animal per year for species such as wolverine, moose and mountain goat, up to a maximum of seven wolves in one licencing year and coyote which has no limit.¹⁵⁸⁹ Bag limits for birds and small game are larger, with, for example, a limit of ten ptarmigan and no limit on Arctic ground squirrels or snowshoe hares.¹⁵⁹⁰

There are limits on the times and seasons in which species in the Yukon can be hunted.¹⁵⁹¹ For example, the open season on polar bears is October 1 to May 31 whereas the open season for moose is August 1 to October 31.¹⁵⁹² Even during the open season, there are limits on the time at which hunting may take place. Hunting is not allowed overnight, from one hour after sunset until one hour before sunrise.¹⁵⁹³ For the parts of the Yukon north of the Arctic Circle where, for parts of the year, the sun either does not rise or does not set, during these times, hunting is not allowed ‘during the period the centre of the sun’s disc is more than six degrees below the horizon’.¹⁵⁹⁴

Certain species are afforded additional protection from hunting. For example, it is unlawful to hunt a female bear who is accompanied by a bear cub or to hunt a young bear, which is defined as a bear cub, a grizzly bear or polar bear under the age of three or a black bear under the age of two.¹⁵⁹⁵ Similarly, it is illegal to hunt a female sheep, a female mountain goat accompanied by a kid or a male sheep which does not have a fully curved horn (demonstrating full maturity).¹⁵⁹⁶

¹⁵⁸⁶ Wildlife Regulation — Yukon Regulation O.I.C. 2012/84 s 16.

¹⁵⁸⁷ *ibid* 17.

¹⁵⁸⁸ *ibid* 16(3).

¹⁵⁸⁹ Yukon Wildlife Act 2002 s 15(1); Wildlife Regulation — Yukon Regulation O.I.C. 2012/84, Schedule B.

¹⁵⁹⁰ Wildlife Regulation — Yukon Regulation O.I.C. 2012/84, Schedule B; *Yukon Hunting Regulations Summary 2018-2019* (n 259) 28.

¹⁵⁹¹ Wildlife Regulation — Yukon Regulation O.I.C. 2012/84, Schedule B.

¹⁵⁹² *ibid*, Schedule B.

¹⁵⁹³ Yukon Wildlife Act 2002 s 23(1).

¹⁵⁹⁴ *ibid* 23(2).

¹⁵⁹⁵ Wildlife Regulation — Yukon Regulation O.I.C. 2012/84 s 4.

¹⁵⁹⁶ *ibid* 5.

There are a number of rules and regulations which specify how hunting must be conducted within the Yukon. For example, it is unlawful to hunt or trap within one kilometre of a residence without permission, nor may a person hunt or trap in such a way that is likely to cause injury to a person, livestock or property.¹⁵⁹⁷ During hunting it is unlawful to use bait, lights or reflectors to attract animals, and it is also unlawful to use poison and drugs to kill or capture wildlife.¹⁵⁹⁸ The Yukon Wildlife Act prohibits the wounding of species by mandating that where a species is wounded, ‘reasonable effort’ is made to find and kill the animal, as well as insisting that an animal which has been killed is retrieved.¹⁵⁹⁹ Where a game bird, big game animal or small game animal is hunted, it is unlawful to allow the meat to be spoiled, wasted or fed to dogs and, where a furbearing animal is hunted, allowing the pelt to be spoiled is illegal.¹⁶⁰⁰

Different rules apply to indigenous hunters in the Yukon, as a result of the land claim agreements, particularly the Inuvialuit Final Agreement which applies to the Yukon North Slope.¹⁶⁰¹ Inuvialuit are entitled to hunt throughout the North Slope for wildlife, including specially protected species, without the need for a hunting permit.¹⁶⁰² The main limit is that where a total allowable harvest has been established then only those who have been granted an allocation from that harvest may hunt the relevant species.¹⁶⁰³ Total allowable harvests are recommended to the Minister by the Wildlife Management Advisory Council (North Slope) which balances the needs of subsistence hunters and the need to conserve the species being hunted.¹⁶⁰⁴ As a result of the provisions of the Inuvialuit Final Agreement, the Inuvialuit of the western Arctic are the only people who are allowed to hunt polar bears in the Yukon.¹⁶⁰⁵

It is an offence to contravene the provisions of the Yukon Wildlife Act 2002.¹⁶⁰⁶ The penalty for committing such an offence is a fine of up to 50,000 CAD, or imprisonment for

¹⁵⁹⁷ Yukon Wildlife Act 2002 ss 12, 13.

¹⁵⁹⁸ *ibid* 21, 22, 27.

¹⁵⁹⁹ *ibid* 28, 29.

¹⁶⁰⁰ *ibid* 32, 33.

¹⁶⁰¹ Inuvialuit Final Agreement 1984; Yukon Wildlife Act 2002, Part 13.

¹⁶⁰² Yukon Wildlife Act 2002 ss 200(1), 204, 207.

¹⁶⁰³ *ibid* 200(2).

¹⁶⁰⁴ *ibid* 212, 213.

¹⁶⁰⁵ Inuvialuit Final Agreement 1984.

¹⁶⁰⁶ Yukon Wildlife Act 2002 s 157(1).

a term of up to one year, or both.¹⁶⁰⁷ Where the offence was carried out for commercial or monetary benefit, or where the species involved is a specially protected species, the penalties rise to a maximum of 100,000 CAD, a term of imprisonment of up to two years, or both.¹⁶⁰⁸ Penalties are doubled for second and subsequent offences and continuing offences are considered to be a new offence each day.¹⁶⁰⁹ Where a financial benefit has accrued from the offence, the court can order that the offender pays a fine equal to the amount of the benefit.¹⁶¹⁰ In addition to the standard penalties, the court may make one of a series of orders aimed at either ensuring that the harm caused by the offence is ameliorated or that future offences are prevented.¹⁶¹¹ Examples of possible orders include a requirement to pay the cost of remedial action, to publish details of the offence committed, to undertake community service or to complete a hunter education course.¹⁶¹²

B.4.4.2. Northwest Territories

There are four land claims agreements in the Northwest Territories, namely the Inuvialuit Final Agreement, the Gwich'in Comprehensive Land Claim Agreement, the Satu Dene and Métis Comprehensive Land Claim Agreement and the Tłı̨chǫ Land Claims and Self-Government Agreement.¹⁶¹³ Each of the land claim agreements establishes a renewable resources board which, together, are the 'main instruments of wildlife management' in the parts of the Northwest Territories which are covered by land claim agreements.¹⁶¹⁴

B.4.4.2.1. Species Protection

Unlike the other territories in Canada, the Northwest Territories has a comprehensive species protection system which closely mirrors the federal species protection system. The Species at Risk (NWT) Act was passed in 2009 to fulfil the territory's obligations under the National Accord for the Protection of Species at Risk.¹⁶¹⁵ The purpose of the act is to ensure that the 'rich biological diversity of the Northwest Territories' is preserved.¹⁶¹⁶ The

¹⁶⁰⁷ *ibid* 161(1).

¹⁶⁰⁸ *ibid* 161(2).

¹⁶⁰⁹ *ibid* 162, 163.

¹⁶¹⁰ *ibid* 165.

¹⁶¹¹ *ibid* 169.

¹⁶¹² *ibid*.

¹⁶¹³ Inuvialuit Final Agreement 1984; Gwich'in Comprehensive Land Claim Agreement 1992; Tłı̨chǫ Land Claims Agreement 2003; Satu Dene and Métis Comprehensive Land Claim Agreement 1993.

¹⁶¹⁴ Northwest Territories Wildlife Act 2013 s 9.

¹⁶¹⁵ National Accord for the Protection of Species at Risk.

¹⁶¹⁶ Species at Risk (NWT) Act 2009, preamble.

Species at Risk (NWT) Act 2009 applies to all species of animal, plant and other organisms which are found wild within the Northwest Territories, either because it is indigenous or because it has moved naturally into the area, without the assistance of humans.¹⁶¹⁷ The only species which are excluded are single celled organisms, fish, marine plants and migratory birds.¹⁶¹⁸ The act allows for the listing of species as extinct, extirpated (meaning extinct within the Northwest Territories while not being extinct elsewhere), endangered, threatened or of special concern, and for the protection of species once listed.¹⁶¹⁹

The Species at Risk (NWT) Act 2009 established the Conference of Management Authorities and gave it the authority ‘to provide direction, coordination and leadership with respect to the assessment, listing, conservation and recovery of species at risk’.¹⁶²⁰ It does this while respecting the role of the individual renewable resources or wildlife management boards established by the land claims agreements in the Northwest Territories (the co-management boards).¹⁶²¹ The Conference of Management Authorities is made up from the co-management boards, the Tłı̨chǫ Government, the Government of the Northwest Territories and the Government of Canada.¹⁶²² The Conference seeks to reach a consensus on the listing and protection of species at risk within the Northwest Territories.¹⁶²³

The assessment of species potentially at risk is conducted by the Species at Risk Committee, which is made up from one representative from each of the co-management boards, either one or two representatives from the Government of Canada and other members appointed by the Minister of Environment in Northwest Territories.¹⁶²⁴ The committee members must have expertise in ‘species, habitat, northern ecosystems or conservation drawn from Aboriginal knowledge, community knowledge or scientific knowledge’ and each member acts independently rather than representing the organisation by which they were appointed.¹⁶²⁵

¹⁶¹⁷ *ibid* 8.

¹⁶¹⁸ *ibid* 8(3).

¹⁶¹⁹ *ibid* 32.

¹⁶²⁰ *ibid* 12.

¹⁶²¹ *ibid*.

¹⁶²² *ibid* 11(2).

¹⁶²³ *ibid* 35.

¹⁶²⁴ *ibid* 17, 19.

¹⁶²⁵ *ibid* 19(4), 20.

Candidate species for consideration as species at risk may be suggested either by the co-management boards or by any other body or person, provided that reasons are given for the request.¹⁶²⁶ Once a request is received, or on its own initiative, the Species at Risk Committee will assess the status of the species according to ‘objective biological criteria’.¹⁶²⁷ In order to do this, it will prepare a species status report which sets out the ‘best available knowledge’ about the species, based on biology, threats and ‘positive influences on the species and its habitat’.¹⁶²⁸ The species status report will rely on scientific knowledge but will also include ‘Aboriginal traditional knowledge’ and ‘community knowledge’.¹⁶²⁹ The committee does not, however, consider socio-economic effects or ‘any possible consequences of the assessment if it is implemented’.¹⁶³⁰ This means that the assessment conducted by the Species at Risk Committee is purely biological, and does not consider political, social or economic impacts of listing a particular species.¹⁶³¹

The Species at Risk Committee provides its assessment on a particular species to the Conference of Management Authorities.¹⁶³² The Conference will discuss the assessment within three months of receiving it and make plans for establishing a consensus agreement on the listing or otherwise of the species.¹⁶³³ Before a consensus agreement can be sought, opportunity must be given for any procedural requirements needed under the land claims agreements and the public and other stakeholders must be given the chance to give comments to the Minister of Environment and Natural Resources.¹⁶³⁴ Once this opportunity has been afforded, the Conference will meet to attempt to reach a consensus agreement, which need not necessarily be consistent with the outcome of the assessment by the Species at Risk Committee.¹⁶³⁵ If a consensus is reached then the outcome will be reported to the Minister of Environment and Natural Resources who is expected to list the species within three months of receiving the agreement.¹⁶³⁶ If no consensus can be reached within one year of the report being provided by the Species at Risk Committee to the

¹⁶²⁶ *ibid* 26, 27.

¹⁶²⁷ *ibid* 25, 28(1)(b).

¹⁶²⁸ *ibid* 30(4)(a).

¹⁶²⁹ *ibid*.

¹⁶³⁰ *ibid* 31(2).

¹⁶³¹ *ibid* 31.

¹⁶³² *ibid* 33.

¹⁶³³ *ibid* 35.

¹⁶³⁴ *ibid*.

¹⁶³⁵ *ibid* 36, 37.

¹⁶³⁶ *ibid* 36(4), 39.

Conference of Management Authorities, the decision on listing a species will default to the Minister of Environment and Natural Resources.¹⁶³⁷

Where a species has been listed as either endangered, threatened or of special concern, plans will be drawn up to protect that species. A recovery strategy must be prepared within one year of the date of listing for endangered species and two years for threatened species.¹⁶³⁸ For species listed as of special concern, a management plan should be prepared within two years of the date of listing.¹⁶³⁹ Recovery strategies and management plans should describe the threats and ‘positive influences’ on a species and their habitat and make recommendations ‘on objectives for the management’ or ‘conservation and recovery’ of the species as well as what approaches could be taken to assure those objectives are reached.¹⁶⁴⁰ The Conference of Management Authorities should attempt to reach a consensus on the acceptance of the management plan or recovery strategy in the same way that consensus is reached on the listing decision.¹⁶⁴¹ There are no general protections which come into force with the listing of a species, instead, regulations can be passed and agreements reached with landowners of land where a species is found to ensure that the species are protected.¹⁶⁴² It is also possible for a habitat to be designated where the habitat is ‘essential to the survival or recovery of the species’.¹⁶⁴³ To date, no regulations have been passed, no agreements have been reached and no habitats have been designated.¹⁶⁴⁴

It is a criminal offence to breach the terms of the act or any regulations made under the act.¹⁶⁴⁵ Once convicted, an offender can be sentenced to a fine of up to 250,000 CAD, or a term of imprisonment of up to one year, or both.¹⁶⁴⁶ For a corporate offender, the maximum fine is 1,000,000 CAD.¹⁶⁴⁷ For second or subsequent offences, the fines may be

¹⁶³⁷ *ibid* 38, 41–43.

¹⁶³⁸ *ibid* 60.

¹⁶³⁹ *ibid* 59.

¹⁶⁴⁰ *ibid* 61(9).

¹⁶⁴¹ *ibid* 65–67.

¹⁶⁴² *ibid* 79, 151–152.

¹⁶⁴³ *ibid* 153.

¹⁶⁴⁴ Minister of Environment and Natural Resources Northwest Territories, *Environment and Natural Resources Annual Reports: Species at Risk (NWT) Act* (Government of Northwest Territories 2010); ‘Tools for Industry’ (*NWT Species at Risk*) <<https://www.nwt-species-at-risk.ca/ToolsForDevelopers#regulations>> accessed 8 February 2019.

¹⁶⁴⁵ *Species at Risk (NWT) Act* 2009 s 119.

¹⁶⁴⁶ *ibid* 119(1).

¹⁶⁴⁷ *ibid*.

doubled and for offences which continue over a period of time, a separate offence is considered to have been committed on each day.¹⁶⁴⁸ As well as either a fine or custody, the court may impose any one of a series of orders aimed at ameliorating the harm caused or preventing future harm.¹⁶⁴⁹ Such orders are up to the court but may include, for example, an order that the offender takes action to remedy the harm, to pay for the remedial works carried out by the authorities, to perform community service or not to engage in behaviour which could lead to the offence being committed again.¹⁶⁵⁰ The court may also revoke any permit and prevent the offender from applying for a new one for a specified period of time.¹⁶⁵¹

There are eleven listed species within the Northwest Territories, of which seven are listed as threatened and four are listed as species of special concern.¹⁶⁵² There are no species listed as endangered, extirpated or extinct.¹⁶⁵³ The species listed as threatened are the barren ground caribou, the boreal caribou, the Peary caribou, the wood bison, the western and northern leopard toads and the hairy braya.¹⁶⁵⁴ The hairy braya is a white flowering plant which is only found on the Cape Bathurst peninsula and the Baillie islands on the northern coast of mainland Northwest Territories and exists nowhere else in the world.¹⁶⁵⁵ The species of special concern within the Northwest Territories are the little brown and northern myotis (both species of bat), the dolphin and union caribou and the polar bear.¹⁶⁵⁶

B.4.4.2.2. Hunting

While the Northwest Territories has a comprehensive species protection regime, it still allows, within limits, hunting of wildlife to take place. The rules surrounding hunting within the territory are found in the Northwest Territories Wildlife Act 2013 and in various regulations made under the act.¹⁶⁵⁷ The act applies to all ‘species of vertebrates and invertebrates found wild in nature in the Northwest Territories’, with the exception of

¹⁶⁴⁸ *ibid* 119(3), (4).

¹⁶⁴⁹ *ibid* 128.

¹⁶⁵⁰ *ibid*.

¹⁶⁵¹ *ibid* 131–133.

¹⁶⁵² ‘NWT List of Species at Risk’ (n 359).

¹⁶⁵³ *ibid*.

¹⁶⁵⁴ *ibid*.

¹⁶⁵⁵ ‘Hairy Braya’ (*NWT Species at Risk*) <<https://www.nwt-species-at-risk.ca/species/hairy-braya>> accessed 7 February 2019.

¹⁶⁵⁶ ‘NWT List of Species at Risk’ (n 359).

¹⁶⁵⁷ Northwest Territories Wildlife Act 2013.

(herded) reindeer which are specifically excluded from the definition of wildlife.¹⁶⁵⁸ The act works under the principle that ‘wildlife is to be conserved for its intrinsic value and for the benefit of present and future generations’ and that ‘traditional Aboriginal values and practices in relation to the harvesting and conservation of wildlife are to be recognized and valued’.¹⁶⁵⁹

Most hunters who wish to hunt within the Northwest Territories are required to complete a harvester course and to obtain a hunting licence before they are allowed to hunt.¹⁶⁶⁰ Different licences are available for residents of the Northwest Territories, residents of other parts of Canada and for foreigners.¹⁶⁶¹ A licence allows a person to hunt, subject to the limitations of the various land claim agreements in the Northwest Territories.¹⁶⁶² Hunting licences allow everyone to hunt small game but those who are not residents of the Northwest Territories may not hunt big game unless they are accompanied by a guide, even if they are in possession of a hunting licence.¹⁶⁶³ Big game is defined in the Northwest Territories as including (among others) bison, bear, moose, muskox, caribou, wolf and wolverine.¹⁶⁶⁴ As well as a hunting licence, a hunter requires a species tag for each species which that hunter intends to hunt or, for small game, a small game authorisation.¹⁶⁶⁵ The tag is attached to the carcass of the animal as soon as possible after it has been killed.¹⁶⁶⁶ For some species, such as muskox and wood bison, a lottery is drawn among residents of the Northwest Territories to allocate the tags as there are more applications for tags than the maximum number of individuals which can be harvested.¹⁶⁶⁷ Hunting licences do not include the right to trap furbearers (such as beaver, otter, Arctic fox and lynx) and generally only those with an indigenous right to trap such species are allowed to do so.¹⁶⁶⁸

¹⁶⁵⁸ *ibid* 1(1); Northwest Territories Wildlife General Regulations s 3(2); Northwest Territories Reindeer Act 2014 s 1; Northwest Territories Reindeer Regulations 2014.

¹⁶⁵⁹ Northwest Territories Wildlife Act 2013 s 2(1).

¹⁶⁶⁰ *ibid* 38, 48.

¹⁶⁶¹ *ibid* 24.

¹⁶⁶² *ibid* 38.

¹⁶⁶³ *ibid* 42.

¹⁶⁶⁴ Northwest Territories Wildlife General Regulations, Schedule A, Part 1.

¹⁶⁶⁵ Northwest Territories Wildlife Licences and Permits Regulations 1992 s 8; Northwest Territories Small Game Hunting Regulations 1992 23.

¹⁶⁶⁶ Northwest Territories Big Game Hunting Regulations 1992 s 22.

¹⁶⁶⁷ *ibid* 13–14.

¹⁶⁶⁸ Northwest Territories Wildlife Act 2013 s 45; Northwest Territories Wildlife General Regulations, Schedule A, Part 2.

Those who are beneficiaries under a land claim agreement are automatically entitled to hunt and trap wildlife within the area covered by the relevant land claim agreement, without the need for a licence or permit.¹⁶⁶⁹ Where a person is an indigenous person within the Northwest Territories but is not a beneficiary of a land claim agreement, they may be entitled to a General Hunting Licence which entitles them to exercise their indigenous hunting rights.¹⁶⁷⁰ In addition to the standard hunting licences, because some of the land claim agreements grant exclusive rights to hunt furbearers to beneficiaries under the agreement, a special harvester licence is available for those who are not beneficiaries but who are supporting an indigenous family or living a subsistence lifestyle.¹⁶⁷¹ Applications for special harvester licences must be approved by a local harvesting committee or similar who may also recommend any limits or conditions.¹⁶⁷² For some species, the beneficiaries to a land claim agreement have exclusive rights to hunt on the land subject to the agreement; where a non-indigenous hunters wishes to access or hunt on such land they must seek and obtain permission.¹⁶⁷³

For most species which can be hunted within the Northwest Territories, there are limits on the seasons during which the species can be hunted, the locations where hunting can take place and the number of individual animals which may be hunted by each hunter. The specific rules are amended each year and can be found in the Big Game Hunting Regulations, Small Game Hunting Regulations and Trapping Regulations.¹⁶⁷⁴ The Northwest Territories is split into game management zones with different rules on harvesting in each zone.¹⁶⁷⁵ The rules also differ depending on the status of the hunter as an indigenous hunter or otherwise and the type of hunting licence held.¹⁶⁷⁶ For example, polar bears may only be hunted within game management zone I which is located on the north coast of the Northwest Territories and also covers the islands in the Arctic

¹⁶⁶⁹ Northwest Territories Wildlife Act 2013 s 17.

¹⁶⁷⁰ *ibid* 21–23.

¹⁶⁷¹ *ibid* 24(1), (3); ‘Special Harvester Licence’

<https://www.enr.gov.nt.ca/sites/enr/files/resources/enr_special_harvester_licence_fact_sheet_p4.pdf> accessed 11 February 2019.

¹⁶⁷² Northwest Territories Wildlife Act 2013 ss 26(1), (2).

¹⁶⁷³ *ibid* 49.

¹⁶⁷⁴ Northwest Territories Big Game Hunting Regulations 1992; Northwest Territories Small Game Hunting Regulations 1992; Northwest Territories Trapping Regulations 1992.

¹⁶⁷⁵ Northwest Territories Wildlife Act 2013 s 88; Northwest Territories Wildlife Management Zones and Areas Regulations 1990.

¹⁶⁷⁶ Northwest Territories Big Game Hunting Regulations 1992; Northwest Territories Small Game Hunting Regulations 1992; Northwest Territories Trapping Regulations 1992.

Archipelago.¹⁶⁷⁷ Within this, different rules apply to each of the three subzones.¹⁶⁷⁸ From 1 October to 30 November only male polar bears may be hunted but from 1 December (or 1 January) to 31 May male and female polar bears may be hunted, although no one is allowed to hunt polar bear cubs, female polar bears with a cub or female polar bears who are in or are constructing a den.¹⁶⁷⁹ Polar bears may be hunted by indigenous hunters and those with resident or non-resident hunting licences but each hunter is limited to the number of tags which he has been issued and, on land subject to the Inuvialuit Final Agreement the Inuvialuit people have an exclusive right to hunt polar bears.¹⁶⁸⁰ While indigenous hunters are not restricted by the hunting methods which they use, non-indigenous hunters may only hunt polar bears on foot or with a dog team.¹⁶⁸¹ Similarly complicated rules apply to other species.

The Northwest Territories Wildlife Act 2013 and the regulations made under it include a number of provisions regulating the behaviour of hunters.¹⁶⁸² Hunting may not be conducted using poison, explosives or other devices which could cause harm to members of the public.¹⁶⁸³ When a hunter wounds an animal, the hunter is required to ‘make every reasonable effort’ to find the animal and to ensure that it is killed; where an animal is killed then the hunter should try to make sure that the carcass is retrieved wherever possible.¹⁶⁸⁴ Edible meat and the pelts of killed furbearing animals may not be wasted through being abandoned or allowed to spoil.¹⁶⁸⁵ Although hunting is permitted under the act, there are prohibitions on any behaviour which would cause ‘significant disturbance’ to any big game and there is a ban on ‘unnecessarily chas[ing], fatigue[ing], disturb[ing], torment[ing] or otherwise harass[ing] game’ or one of a number of specified birds of prey such as the snowy owl.¹⁶⁸⁶ There are also rules about protecting the habitats of species. No one is allowed to

¹⁶⁷⁷ Northwest Territories Big Game Hunting Regulations 1992, Schedule, Part 3; Northwest Territories Wildlife Management Zones and Areas Regulations 1990.

¹⁶⁷⁸ Northwest Territories Big Game Hunting Regulations 1992, Schedule, Part 3; Northwest Territories Wildlife Management Zones and Areas Regulations 1990.

¹⁶⁷⁹ Northwest Territories Big Game Hunting Regulations 1992 s 9.2, Schedule, Part 3.

¹⁶⁸⁰ Northwest Territories Big Game Hunting Regulations 1992, Schedule, Part 3; Inuvialuit Final Agreement 1984 s 12(24)(b).

¹⁶⁸¹ Northwest Territories Big Game Hunting Regulations 1992 s 9.2(4).

¹⁶⁸² Northwest Territories Wildlife Act 2013.

¹⁶⁸³ *ibid* 69.

¹⁶⁸⁴ *ibid* 53.

¹⁶⁸⁵ *ibid* 54; Northwest Territories Wildlife General Regulations s 6.

¹⁶⁸⁶ Northwest Territories Wildlife Act 2013 s 52; Northwest Territories Wildlife General Regulations s 3(3), Schedule B.

‘substantially alter, damage or destroy habitat’ and no one is allowed to ‘destroy, disturb or take’ a bird’s nest or eggs.¹⁶⁸⁷ Likewise, it is prohibited to destroy a den, beaver dam or lodge or similar resting place.¹⁶⁸⁸

It is an offence to ‘contravene[] or fail[] to comply with’ the Northwest Territories Wildlife Act 2013 or any of the regulations made under the act.¹⁶⁸⁹ Offenders are subject to a punishment of a fine of up to 50,000 CAD, a term of imprisonment of not more than one year, or both.¹⁶⁹⁰ Corporate offenders can be fined up to 100,000 CAD.¹⁶⁹¹ Where the offence involves a species listed under the Species at Risk (NWT) Act then the fines are increased to a maximum of 250,000 CAD for an individual and 1,000,000 CAD for a corporate offender or for an individual who committed the offence for commercial purposes.¹⁶⁹² Fines can be doubled for a second or subsequent offence and for continuing offences that last more than one day, the offender will be considered to have committed a new offence each day.¹⁶⁹³ Where the court believes that the offender has gained financially from committing the offence, the court may order the payment of an additional fine equal to the amount from which the offender benefitted.¹⁶⁹⁴ As well as imposing a fine or a prison sentence, the court may make an order which will result in the amelioration of the harm committed or the prevention of future harm. Such orders can include the payment of money, the restoration of any harm or a prohibition against any act likely to result in the commission of an offence.¹⁶⁹⁵ The Northwest Territories allows the use of alternative measures (as described at B.4.1.5 above) for parties who admit to having committed an offence under the Northwest Territories Wildlife Act 2013.¹⁶⁹⁶

B.4.4.3. Nunavut

The species protection system designed for Nunavut works by providing specific protection to vulnerable species, managing habitats and creating limits on the harvesting of species. The authority to protect wildlife within Nunavut comes from two places. Firstly, as a

¹⁶⁸⁷ Northwest Territories Wildlife Act 2013 ss 51(1), 93.

¹⁶⁸⁸ *ibid* 52.

¹⁶⁸⁹ *ibid* 148.

¹⁶⁹⁰ *ibid* 148(1)(b).

¹⁶⁹¹ *ibid* 148(1)(a).

¹⁶⁹² *ibid* 148(3), (4).

¹⁶⁹³ *ibid* 149.

¹⁶⁹⁴ *ibid* 149(4).

¹⁶⁹⁵ *ibid* 157.

¹⁶⁹⁶ *ibid* 167.

territory, Nunavut has the power to legislate for the protection of species within its jurisdiction.¹⁶⁹⁷ Secondly, the Nunavut Land Claims Agreement makes provision for protection of species and habitats, and for the harvesting of species within Nunavut with the Nunavut Wildlife Act 2003 providing further details.¹⁶⁹⁸ All wildlife management in Nunavut is conducted under the values of *Inuit Qaujimagatuqangit* which is often described as the body of traditional knowledge, values and expectations of the Inuit people.¹⁶⁹⁹ There are a wide range of values from ensuring that power is exercised for the benefit of the people to an acknowledgment of the need to treat nature with respect, and from the principle that hunters should not waste wildlife to the need for Inuit people to be ‘creative and flexible’.¹⁷⁰⁰

While the government of Nunavut retains the overall authority to manage wildlife within the territory, the Nunavut Wildlife Management Board, a public body established by the Nunavut Land Claims Agreement, provides most of the expertise required by the government to carry out its responsibilities.¹⁷⁰¹ The Nunavut Wildlife Management Board consists of nine appointed members who carry out a number of wildlife related duties such as establishing quotas for harvesting wildlife, assessing a basic needs level for Inuit harvesters and making recommendations to the federal government regarding species at risk.¹⁷⁰²

B.4.4.3.1. Species Protection

As the federal Species at Risk Act 2002 only protects species found on federal land, the Nunavut Wildlife Act 2003 provides the authority to establish a system by which species can be listed as endangered or threatened within the territory.¹⁷⁰³ The act allows the Nunavut Minister of Environment to create, by order, a List of Species at Risk designating species as extirpated, endangered, threatened or of special concern, on the recommendation of the Nunavut Wildlife Management Board which, in turn, receives recommendations from the Nunavut Species at Risk Committee.¹⁷⁰⁴ Once listed, the act calls of the

¹⁶⁹⁷ Nunavut Act 1993 s 23.

¹⁶⁹⁸ Nunavut Land Claims Agreement; Nunavut Wildlife Act 2003.

¹⁶⁹⁹ Nunavut Wildlife Act 2003 ss 2, 8.

¹⁷⁰⁰ *ibid* 8.

¹⁷⁰¹ Nunavut Land Claims Agreement s 5.2; Nunavut Wildlife Act 2003 ss 151–158.

¹⁷⁰² Nunavut Land Claims Agreement s 5.2; Nunavut Wildlife Act 2003 ss 151–158.

¹⁷⁰³ Nunavut Wildlife Act 2003 ss 134–147.

¹⁷⁰⁴ *ibid* 129–131.

preparation of recovery plans for all endangered and threatened species, applying the precautionary principle and setting out the measures to protect the species and to designate a critical habitat.¹⁷⁰⁵ However, despite the act providing for this system, no regulations have been made to bring this section of the act into force.¹⁷⁰⁶ There is, therefore, at the moment, no territorial species protection system in Nunavut.

Despite the lack of territorial species protection, the Nunavut Wildlife Act 2003 provides for protections from harvesting for endangered species. Section 62 states that where a species is listed as extinct or extirpated, it is unlawful to ‘harvest, harm or interfere’ with the species or with any part thereof.¹⁷⁰⁷ It is also unlawful to traffic in or possess such a species.¹⁷⁰⁸ It is not clear from the act whether this applies to federally listed species or would only apply to territorially listed species (if there were any such listed species).

B.4.4.3.2. Hunting

There are strict rules on hunting within Nunavut but the rules differ considerably depending on the status of the hunter. Those who are included on the register of Inuk (Inuit people) are entitled to hunt and harvest wildlife with no need for a licence or payment of any fees or taxes, although tags may be required for some species.¹⁷⁰⁹ This is because the Nunavut Land Claims Agreement guarantees the right of the Inuit people to hunt throughout their traditional lands.¹⁷¹⁰ Where there is a designated ‘total allowable harvest’ for a particular species, the Inuk is allowed to harvest as much as is needed for his ‘adjusted basic need’ as established under the Land Claims Agreement and decided by the Nunavut Wildlife Management Board.¹⁷¹¹ Where there is no defined ‘total allowable harvest’ for a species, an Inuk may harvest as much as is needed to fulfil his full ‘economic, social and cultural needs’.¹⁷¹² Land and habitation protections may not be used to prevent the Inuit people from exercising their right to hunt and therefore access to protected lands, including critical habitats, wildlife sanctuaries and parks is guaranteed by the Nunavut Wildlife Act, with a

¹⁷⁰⁵ *ibid* 134–135.

¹⁷⁰⁶ Environment and Climate Change Canada, ‘Management Plan for the Dolphin and Union Caribou (Rangifer Tarandus Groenlandicus) in in the Northwest Territories and Nunavut 2018’ (*Government of Canada*, 14 February 2018) s 4.1.

¹⁷⁰⁷ Nunavut Wildlife Act 2003 s 62.

¹⁷⁰⁸ *ibid*.

¹⁷⁰⁹ Nunavut Land Claims Agreement s 35; Nunavut Wildlife Act 2003 ss 2, 10.

¹⁷¹⁰ Nunavut Land Claims Agreement s 5.6.

¹⁷¹¹ *ibid* 5.6.26-5.6.30; Nunavut Wildlife Act 2003 ss 2, 10.

¹⁷¹² Nunavut Wildlife Act 2003 s 10.

small number of exceptions for, for example, military or security reasons or within one mile of privately owned buildings or structures.¹⁷¹³

Residents of Nunavut (of at least three months' standing) are allowed to hunt but are required to obtain a harvesting licence to do so, and, if they wish to hunt big game, they will also need to acquire a species authorisation tag.¹⁷¹⁴ Where such a person seeks to harvest a furbearing animal such as an Arctic fox, Arctic ground squirrel or a lemming, they require the consent of the community Hunters and Trappers Organisation before a harvesting licence can be issued.¹⁷¹⁵ For non-residents of Nunavut, whether they are from other parts of Canada, or from abroad, hunting and trapping of big game is allowed where a licence and species authorisation tag has been issued but the non-resident must also be accompanied by an authorised big game outfitter.¹⁷¹⁶

There are few limits on the species which can be hunted in Nunavut. The only species which would be completely protected are those listed as extinct or extirpated species were there any currently listed.¹⁷¹⁷ For some species harvesting quotas are set by the Nunavut Wildlife Management Board.¹⁷¹⁸ These quotas are in the form of a 'total allowable harvest' and expressed either in the form of a community harvest or a regional harvest.¹⁷¹⁹ The right to designate the total allowable harvest is granted to the Nunavut Wildlife Management Board by the Nunavut Land Claims Agreement.¹⁷²⁰ For example, the total allowable harvest of polar bears in the Baffin Bay subpopulation is 80 bears and only 340 caribou from the Bluenose-East Caribou herd may be harvested annually from within Nunavut.¹⁷²¹ Once a total allowable harvest has been designated, the Nunavut Wildlife Management Board will also decide a 'basic needs level' which is the amount needed for ordinary

¹⁷¹³ *ibid* 11.

¹⁷¹⁴ *ibid* 18, 19, 59.

¹⁷¹⁵ *ibid* 2, 24.

¹⁷¹⁶ *ibid* 111.

¹⁷¹⁷ *ibid* 62.

¹⁷¹⁸ *ibid* 120.

¹⁷¹⁹ Nunavut Land Claims Agreement ss 5.6.16-5.6.17; Nunavut Wildlife Act 2003 s 120.

¹⁷²⁰ Nunavut Land Claims Agreement ss 5.6.16-5.6.17.

¹⁷²¹ Total Allowable Harvest Limit for Bluenose-East Caribou Herd Nunavut Regulation R-012-2017;

Nunatsiaq News, 'Nunavut Raises Hunting Limit on Western Hudson Bay Polar Bears' (*Nunatsiaq News*, 7 June 2018)

<https://nunatsiaq.com/stories/article/65674nunavut_raises_hunting_limit_on_western_hudson_bay_polar_bears/> accessed 25 January 2019.

consumption by the Inuit people.¹⁷²² The basic needs level will be the first demand on any total allowable harvest and the remaining quota may only be distributed for sport, commerce or other reason once the basic needs level has been met.¹⁷²³ For many species, the basic needs level will consume the whole of the total allowable harvest which means that only Inuk may hunt such species.¹⁷²⁴ There is a total allowable harvest of 250 male Baffin Island caribou but the entire amount is reserved for the basic needs level.¹⁷²⁵ Where there is no total allowable harvest, the Game Harvesting and Possession Limits Order 2015 establishes annual and daily limits for harvesting species.¹⁷²⁶ Limits include an annual maximum of one black bear and one muskox for non-residents of Nunavut and a daily limit of ten grouse or ptarmigan for Nunavut residents who are not Inuk.¹⁷²⁷ Licences are also required for other activities in Nunavut which could interfere with or harm wildlife. For example, a licence is required to ‘research on wildlife or collect wildlife specimens for research’.¹⁷²⁸ Similarly, any organised or commercial activity which involves interaction with or ‘close observation’ of wildlife requires a licence.¹⁷²⁹ Such activities include filming wildlife, safaris or expeditions and cruises.¹⁷³⁰

Harvest seasons are not set by the Nunavut Wildlife Act 2003 but the act prohibits any harvesting of wildlife outside of harvesting times and seasons set by regulation.¹⁷³¹ Regulations can be made by the territorial Minister on the recommendation of the Nunavut Wildlife Management Board.¹⁷³² However, for most species, including black bear, polar bear, muskox, wolf, wolverine, all furbearers, grouse and ptarmigan, the open season for hunting in Nunavut is 1 July to 30 June.¹⁷³³ The seasons are different for migratory birds although these are set by the federal government under the Migratory Birds Convention Act 1994 and the Migratory Birds Convention Regulations (see B.4.2 above).¹⁷³⁴

¹⁷²² Nunavut Land Claims Agreement ss 5.6.16-5.6.17; Nunavut Wildlife Act 2003 s 120.

¹⁷²³ Nunavut Land Claims Agreement ss 5.6.16-5.6.17; Nunavut Wildlife Act 2003 ss 120–122.

¹⁷²⁴ Nunavut Wildlife Act 2003 s 120(3).

¹⁷²⁵ Baffin Island Caribou Total Allowable Harvest Order - Nunavut Regulation R-024-2015 s 2.

¹⁷²⁶ Game Harvesting and Possession Limits Order - Nunavut Regulation R-017-2015.

¹⁷²⁷ *ibid.*

¹⁷²⁸ Nunavut Wildlife Act 2003 s 117.

¹⁷²⁹ *ibid.*

¹⁷³⁰ *ibid.*

¹⁷³¹ *ibid* 99.

¹⁷³² Open Seasons Order - Nunavut Regulation R-016-2015.

¹⁷³³ *Nunavut Hunting Guide 2018/19* (n 259) 12–15.

¹⁷³⁴ Migratory Birds Convention Act 1994; Migratory Birds Regulations.

There are a number of rules regarding the conduct of hunting in Nunavut, to ensure that it is carried out in a way which respects the environment and the traditional Inuit values. In particular, no one is allowed to ‘chase, weary, harass or molest a wild animal’, except when lawfully hunting for the species.¹⁷³⁵ Where an animal is wounded or killed during a hunt, the hunter is expected to retrieve the carcass and, if necessary, to kill it.¹⁷³⁶ Hunters are not allowed to take more than they need and, where they have taken a species, they are prohibited from wasting that animal; the edible parts and the pelt or hide must not be wasted, abandoned or spoiled.¹⁷³⁷ Furthermore, where the meat is edible to humans, it must not be fed to animals, whether domestic or wild.¹⁷³⁸ The act provides a number of rules regarding the methods which can be used for hunting; Inuit hunters may use any hunting methods which comply with general laws on weapons but other hunters are prohibited from using poison, set guns, automatic weapons, explosives or other similar weapons when hunting.¹⁷³⁹ Some species have specific rules in place to protect them. For example, it is unlawful to kill a polar bear under the age of three years or to hunt a female polar bear which is accompanied by a young polar bear.¹⁷⁴⁰

It is an offence to contravene the provisions of the Nunavut Wildlife Act 2003, or to aid and abet a person to commit such an offence.¹⁷⁴¹ Financial penalties for offences can be high whereas custodial punishments are fairly short. For corporations found guilty fines range from 500 CAD to 1,000,000 CAD whereas individuals can be subject to fines ranging up to 500,000 CAD, a term of imprisonment of up to six months, or both.¹⁷⁴² Where the offender is found guilty of a second or further offence, the maximum punishments can be doubled.¹⁷⁴³ It is also possible for a person to be convicted for each separate day of an offence which continues over a period of time.¹⁷⁴⁴ In addition to the traditional punishments, the judge has the authority to make one of a number of orders under section 229.¹⁷⁴⁵ Such orders include prohibiting any particular activity that could cause a repeat

¹⁷³⁵ Nunavut Wildlife Act 2003 s 74.

¹⁷³⁶ *ibid* 76.

¹⁷³⁷ *ibid*.

¹⁷³⁸ *ibid* 78.

¹⁷³⁹ *ibid* 79, 80.

¹⁷⁴⁰ Harvesting Regulations - Nunavut Regulations R-011-2015 ss 9–10.

¹⁷⁴¹ Nunavut Wildlife Act 2003 s 220.

¹⁷⁴² *ibid* 221.

¹⁷⁴³ *ibid*.

¹⁷⁴⁴ *ibid*.

¹⁷⁴⁵ *ibid* 229.

offence, ordering the remedying of any environmental harm caused, or directing that a person performs community service, pays for preventative measures or funds scholarships for students of wildlife studies.¹⁷⁴⁶

B.5. Habitat Protection

B.5.1. Canada National Parks Act 2000

Some of the most outstanding examples of the Canadian environment are protected as National Parks. National parks are federally owned lands which are ‘dedicated to the people of Canada for their benefit, education and enjoyment’.¹⁷⁴⁷ National parks are protected so that they can be left ‘unimpaired for the enjoyment of future generations’.¹⁷⁴⁸ National parks are established under the Canada National Parks Act 2000 which sets out the names and descriptions of each of the parks.¹⁷⁴⁹ The act makes the Minister with responsibility for Parks Canada, the Minister for Environment and Climate Change, responsible for administering, managing and controlling National Parks, with the ‘first priority’ being ‘ecological integrity’ of the land.¹⁷⁵⁰ The act permits the federal government to make regulations which, inter alia, allow for the protection of flora and fauna within the park.¹⁷⁵¹ In addition to these regulations, the act makes it an offence to hunt any one of a list of wild animals listed in Schedule 3, Part 1, including grizzly bear, polar bear, gyrfalcon and Dall’s sheep, within any national park.¹⁷⁵²

There are currently 39 National Parks and eight National Park Reserves in Canada, covering a total of 3.3% of the country’s area.¹⁷⁵³ In the Arctic, there are eight national parks, two in the Yukon and three each in Northwest Territories and Nunavut.¹⁷⁵⁴ The most northerly national park in the Arctic is the Quttinirpaaq National Park which is located on the north-eastern corner of Ellesmere Island in Nunavut.¹⁷⁵⁵ The park, which boasts huge

¹⁷⁴⁶ *ibid.*

¹⁷⁴⁷ Canada National Parks Act 2000 s 4(1).

¹⁷⁴⁸ *ibid.*

¹⁷⁴⁹ *ibid* 5, Schedule 1.

¹⁷⁵⁰ *ibid* 8.

¹⁷⁵¹ *ibid* 16.

¹⁷⁵² *ibid* 26(1)(a), (2), Schedule 3, Part 1.

¹⁷⁵³ Parks Canada, ‘The System of National Parks of Canada’ (*National Parks Canada*, 6 February 2017)

<<https://www.pc.gc.ca/en/pn-np/cnnp-cnnp/carte-map-txt>> accessed 15 February 2019.

¹⁷⁵⁴ Canada National Parks Act 2000, Schedule 1.

¹⁷⁵⁵ Parks Canada, ‘Quttinirpaaq National Park’ (21 January 2019) <<https://www.pc.gc.ca/en/pn-np/nu/quttinirpaaq>> accessed 15 February 2019.

ice caps and dramatic mountains, provides a protected habitat to Arctic species such as polar bears, Arctic hares, wolves, Peary caribou and muskoxen.¹⁷⁵⁶ In addition to federal national parks, there are also a number of territorial parks located in the Arctic, established under the various territorial wildlife acts.¹⁷⁵⁷

B.5.2. Canada Wildlife Act

The Canada Wildlife Act and the Wildlife Area Regulations made under the act, allow for the creation of National Wildlife Areas. National Wildlife Areas are acquired and protected for the purposes of ‘research, conservation and interpretation’ of migratory birds or other wildlife.¹⁷⁵⁸ There are currently 54 National Wildlife Areas in Canada, covering more than one million hectares of land.¹⁷⁵⁹ Of these, there are six National Wildlife Areas in the northern territories, one in the Yukon and five in Nunavut.¹⁷⁶⁰ The Nisutlin River Delta National Wildlife Area in the Yukon lies south of the Arctic Circle but the five National Wildlife Areas in Nunavut, Polar Bear Pass, Nirjutiqavvik, Akpait, Ninginganiq and Qaulluit, are all located within the Arctic.¹⁷⁶¹ These areas provide protected habitats for a wide range of Arctic species such as Peary caribou, polar bear, Arctic fox, narwhal, walrus, ringed seal, murre, northern fulmars and black-legged kittiwakes.¹⁷⁶² Access is restricted in all five National Wildlife Areas to beneficiaries of the Nunavut Land Claims

¹⁷⁵⁶ *ibid.*

¹⁷⁵⁷ Nunavut Wildlife Act 2003; Yukon Wildlife Act 2002; Northwest Territories Wildlife Act 2013.

¹⁷⁵⁸ Canada Wildlife Act.

¹⁷⁵⁹ Environment and Climate Change Canada, ‘Current National Wildlife Areas’ (*Government of Canada*, 16 February 2011) <<https://www.canada.ca/en/environment-climate-change/services/national-wildlife-areas/locations.html>> accessed 14 February 2019.

¹⁷⁶⁰ Wildlife Area Regulations, Schedule I, Part IX-XI.

¹⁷⁶¹ *ibid.*, Schedule I, Part IX-XI.

¹⁷⁶² ‘Polar Bear Pass National Wildlife Area’ (*Environment and Climate Change Canada*, 14 October 2011) <<https://www.canada.ca/en/environment-climate-change/services/national-wildlife-areas/locations/polar-bear-pass.html>> accessed 15 February 2019; ‘Nirjutiqavvik National Wildlife Area’ (*Environment and Climate Change Canada*, 7 October 2011) <<https://www.canada.ca/en/environment-climate-change/services/national-wildlife-areas/locations/nirjutiqavvik.html>> accessed 15 February 2019; ‘Akpait National Wildlife Area’ (*Environment and Climate Change Canada*, 7 October 2011) <<https://www.canada.ca/en/environment-climate-change/services/national-wildlife-areas/locations/akpait.html>> accessed 15 February 2019; ‘Ninginganiq National Wildlife Area’ (*Environment and Climate Change Canada*, 7 October 2011) <<https://www.canada.ca/en/environment-climate-change/services/national-wildlife-areas/locations/ninginganiq.html>> accessed 15 February 2019; ‘Qaulluit National Wildlife Area’ (*Environment and Climate Change Canada*, 14 October 2011) <<https://www.canada.ca/en/environment-climate-change/services/national-wildlife-areas/locations/qaulluit.html>> accessed 15 February 2019.

Agreement only.¹⁷⁶³ Beneficiaries may harvest wildlife for their ‘economic, cultural and social needs’ but anyone else wanting to access the land or to carry out any activity on it requires a permit.¹⁷⁶⁴

B.5.3. Migratory Bird Sanctuaries

The Migratory Birds Convention Act 1994 and the Migratory Bird Sanctuary Regulations allow for the establishment of Migratory Bird Sanctuaries for the protection of migratory birds.¹⁷⁶⁵ The regulations prohibit the hunting, disturbing or destroying of birds or nests within a Migratory Bird Sanctuary without a permit.¹⁷⁶⁶ There are 92 Migratory Bird Sanctuaries across Canada protecting an area of almost 11.5 million hectares of land. While there are no Migratory Bird Sanctuaries in the Yukon, there are five located in the Northwest Territories and eleven in Nunavut.¹⁷⁶⁷ Of these, five of the sanctuaries in Nunavut and all five of the sanctuaries in the Northwest Territories are located north of the Arctic Circle.¹⁷⁶⁸ One example is the Kendall Island Migratory Bird Sanctuary, found on the northern coast of the Northwest Territories.¹⁷⁶⁹ The sanctuary provides a protected habitat for a colony of around 375,000 lesser snow geese alongside hundreds of other species of birds which use the land for nesting, moulting, feeding, resting and migrating.¹⁷⁷⁰

B.6. Case Studies

B.6.1. *Animal Alliance of Canada v Canada (Attorney General)*

[1999] 4 Federal Court 72, [2000] Federal Court Judgments No 1419

Federal Court of Canada – Trial Division;

Federal Court of Canada – Appeal Division

¹⁷⁶³ ‘Polar Bear Pass National Wildlife Area’ (n 1762); ‘Nirjutiqavvik National Wildlife Area’ (n 1762); ‘Akpait National Wildlife Area’ (n 1762); ‘Ninginganiq National Wildlife Area’ (n 1762); ‘Qaqulluit National Wildlife Area’ (n 1762); Nunavut Land Claims Agreement.

¹⁷⁶⁴ ‘Polar Bear Pass National Wildlife Area’ (n 1762); ‘Nirjutiqavvik National Wildlife Area’ (n 1762); ‘Akpait National Wildlife Area’ (n 1762); ‘Ninginganiq National Wildlife Area’ (n 1762); ‘Qaqulluit National Wildlife Area’ (n 1762); Nunavut Land Claims Agreement s 5; Wildlife Area Regulations ss 3–4.

¹⁷⁶⁵ Migratory Birds Convention Act 1994; Migratory Bird Sanctuary Regulations.

¹⁷⁶⁶ Migratory Bird Sanctuary Regulations s 3.

¹⁷⁶⁷ ‘Migratory Bird Sanctuaries Across Canada’ (*Environment and Climate Change Canada*, 22 February 2011) <<https://www.canada.ca/en/environment-climate-change/services/migratory-bird-sanctuaries/locations.html>> accessed 15 February 2019.

¹⁷⁶⁸ *ibid.*

¹⁷⁶⁹ ‘Kendall Island Migratory Bird Sanctuary’ (*Environment and Climate Change Canada*, 4 March 2015) <<https://www.canada.ca/en/environment-climate-change/services/migratory-bird-sanctuaries/locations/kendall-island.html#toc2>> accessed 15 February 2019.

¹⁷⁷⁰ *ibid.*

In about 1995, it became apparent that an overabundance of snow geese in Canada was having an impact on the Arctic ecosystems where the geese spent the summer.¹⁷⁷¹ Traditionally, the availability of food in their southern winter habitats would keep the population under control but with increasing level of agriculture providing more winter food, the number of birds was increasing rapidly and other birds and wildlife in the Arctic were being affected as a result.¹⁷⁷² In order to bring the population of snow geese back to the ‘carrying capacity of [the] breeding habitats’, in 1999, the Governor in Council amended the regulations to the Migratory Birds Convention Act 1994.¹⁷⁷³ The new regulations allowed the hunting of snow geese in parts of Quebec and Manitoba during the closed season when previously hunting was limited to the open season only, for the purpose of reducing the size of the population returning to the Arctic in the summer.¹⁷⁷⁴ The regulations not only permitted the hunting of snow geese but also of Ross geese as the two species cannot readily be distinguished during hunting and it was decided that the population of Ross geese could stand the additional losses.¹⁷⁷⁵

The Animal Alliance of Canada and a number of other environmental organisations brought a judicial review of the regulations, arguing that they were was ‘ultra vires, unlawful, violated section 35 of the [Canadian Charter of Rights and Freedoms], and were of no force and effect’.¹⁷⁷⁶ Section 35 of the Canadian Charter of Rights and Freedoms recognises and guarantees the right ‘existing aboriginal and treaty rights of the aboriginal peoples’.¹⁷⁷⁷ The applicants argued, inter alia, that the Governor had acted outside the scope of his authority under the Migratory Birds Convention 1916 which was aimed at protecting species of birds, not destroying them, that the new regulations permitted hunting while the birds were travelling to their breeding grounds contrary to the 1916 convention, that the right of the indigenous people to be consulted had been violated and that the impact on indigenous

¹⁷⁷¹ *Animal Alliance of Canada v Canada (First Instance)* (n 290) [22].

¹⁷⁷² *ibid* [2].

¹⁷⁷³ Migratory Birds Convention Act 1994; Migratory Birds Regulations; Regulations Amending the Migratory Birds Regulations, SOR/99-147; *Animal Alliance of Canada v Canada (First Instance)* (n 290) [1].

¹⁷⁷⁴ *Animal Alliance of Canada v Canada (First Instance)* (n 290) [2].

¹⁷⁷⁵ *ibid* [2].

¹⁷⁷⁶ *ibid* [Preamble].

¹⁷⁷⁷ Constitution Act 1982 s 35.

people, their communities and the ‘wildlife upon which they depend’ had not been adequately considered.¹⁷⁷⁸

In the Federal Court – Trial Division, Gibson J. first held that the matter was reviewable, at least to the extent that the Governor in Council had failed or otherwise ‘to observe a condition precedent to the exercise of its power or exceeded its jurisdiction’ but that the court could not investigate the motives of the Governor in Council in passing the regulations.¹⁷⁷⁹ The matter was heard urgently because the spring hunt was due to begin the day after the hearing. The judge ruled, *ex tempore*, that the rules were *ultra vires* in so far as they applied to ‘the killing of Ross geese and species which [were] not easily distinguishable from snow geese’.¹⁷⁸⁰ He gave reasons in a full judgment a few weeks later, in which he held that the Migratory Birds Convention 1916, on which the authority to draft amending regulations of the Migratory Birds Convention Act 1994 was predicated, allowed regulations to be made for the killing of birds, through hunting, where there were ‘extraordinary conditions’ and where the birds were posing a threat which was ‘seriously injurious to the agricultural or other interests in any particular community’.¹⁷⁸¹ Gibson J also found that section 12(1) of the Migratory Birds Convention Act 1994 allows for the issuing of regulations to kill birds in circumstances allowed by the provisions of the Convention.¹⁷⁸² He ruled that although there was sufficient evidence that there were ‘extraordinary conditions’ in relation to snow geese on which the Governor in Council was entitled to rely, he did not find the same level of evidence in relation to Ross geese or other species.¹⁷⁸³

The other arguments brought by the applicants were dismissed, including the argument that the aboriginal rights of the indigenous people affected had been violated.¹⁷⁸⁴ The judge held that there was a duty to consult indigenous people but that the duty did not arise until there was a ‘prima facie infringement of aboriginal rights’ and there was no evidence in this case that there was such an infringement, partly because no First Nation had provided

¹⁷⁷⁸ *Animal Alliance of Canada v Canada (First Instance)* (n 290) [7].

¹⁷⁷⁹ *ibid* [8]-[10].

¹⁷⁸⁰ *ibid* [31].

¹⁷⁸¹ *ibid* [37]-[38]; Convention Between the United States and Great Britain for the Protection of Migratory Birds 1916, Article VII.

¹⁷⁸² *Animal Alliance of Canada v Canada (First Instance)* (n 290) [39]-[41].

¹⁷⁸³ *ibid* [43]-[44].

¹⁷⁸⁴ *ibid* [50], [58], [62].

any evidence.¹⁷⁸⁵ The judge therefore found that the regulations were legally valid in relation to snow geese but that they were ‘ultra vires insofar as they purport to authorize the killing of Ross Geese and other species that are not easily distinguishable from Snow Geese’.¹⁷⁸⁶

The judgment was appealed by the applicant environmental organisations who wished to adduce an affidavit of the National Chief of the Dene Nation to provide evidence that there was a prima facie infringement of aboriginal rights because the Dene Nation relies on snow geese for food and so they will be adversely affected by the regulations.¹⁷⁸⁷ Sharlow JA rejected the application on the basis that the only reason it had not been filed earlier was because the Dene Nation missed the deadline as they could not reach a consensus among themselves.¹⁷⁸⁸ As the appeal against the decision of the Trial Division was predicated on the ability to adduce the affidavit, the substantive appeal was dropped.

B.6.2. *Clyde River (Hamlet) v TGS-NOPEC Geophysical Co. ASA; Clyde River (Hamlet) v Petroleum Geo-Services Inc.*

2015 FCA 179, 2017 SCC 40

Federal Court of Canada – Appeal Division;

Supreme Court of Canada

The tiny village of Clyde River (Kanngiqtugaapik in Inuktitut) is an indigenous Inuit village located in the north east of Baffin Island, in the far north of Nunavut.¹⁷⁸⁹ The village relies on hunting of marine mammals such as narwhal, bowhead whale, seals and polar bears in the Arctic Ocean for food.¹⁷⁹⁰ Hunting also fulfils a number of ‘economic, cultural and spiritual’ needs within the community.¹⁷⁹¹ Of the species commonly harvested by the Inuit people of Kanngiqtugaapik, the Davis Straight and Baffin bay population of the bowhead

¹⁷⁸⁵ *ibid* [71]-[72].

¹⁷⁸⁶ *ibid* [73].

¹⁷⁸⁷ *Animal Alliance of Canada v Canada (Appeal)* (n 290) [1], [12].

¹⁷⁸⁸ *ibid* [20].

¹⁷⁸⁹ *Clyde River (Hamlet) v TGS-NOPEC Geophysical Co. ASA* (n 295) para 1.

¹⁷⁹⁰ *ibid* 2.

¹⁷⁹¹ *ibid*.

whale is listed as a threatened species under the federal Species at Risk Act 2002 and the narwhal is considered to be a Species of Species Concern within the eastern Arctic.¹⁷⁹²

In May 2011, the respondent companies applied for a permit (a Geophysical Operations Authorisation) to carry out a ‘two-dimensional offshore seismic survey’.¹⁷⁹³ The application was made under section 5(1)(b) of the Canada Oil and Gas Operations Act 1985 and was considered by the National Energy Board.¹⁷⁹⁴ The planned survey was to take place over a five year period, during the summer months when the sea ice had melted and the respondents hoped that the survey would assist them in finding oil and gas reserves.¹⁷⁹⁵ In June 2014, having considered the application, the National Energy Board granted the permit, concluding that, with the proposed mitigation measures put in place, ‘the Project is not likely to result in significant adverse environmental effects’.¹⁷⁹⁶

The villagers of Kanngiqtugaapik, represented by the Hamlet of Clyde River municipal corporation, the Nammataq Hunters and Trappers Organisation – Clyde River and Jerry Natanine, the village mayor, concerned about the impact of the decision on their ability to continue to hunt marine mammals, sought judicial review of the decision to grant the permit.¹⁷⁹⁷ In the federal Court of Appeal, there were a number of points in issue, the key ones being the standing of the villagers, whether the Crown’s duty to consult was fulfilled, whether the National Energy Board reasonably concluded that there would be no ‘significant adverse environmental effects’ and whether advice should have been sought from the Nunavut Wildlife Management Board, and whether the Board had failed to take into account the villagers Aboriginal and treaty rights.¹⁷⁹⁸

The Court of Appeal found that the villagers had standing to bring their case because they were at risk of being ‘directly affected’ by the impact of the decision on their local environment and because of the impact on their Aboriginal and treaty rights.¹⁷⁹⁹ In relation

¹⁷⁹² Species at Risk Act 2002; ‘Species at Risk Public Registry’ (n 1324); *Clyde River (Hamlet) v TGS-NOPEC Geophysical Co. ASA* (n 295) para 3.

¹⁷⁹³ *Clyde River (Hamlet) v TGS-NOPEC Geophysical Co. ASA* (n 295) para 4.

¹⁷⁹⁴ *ibid*; Canada Oil and Gas Operations Act 1985.

¹⁷⁹⁵ *Clyde River (Hamlet) v TGS-NOPEC Geophysical Co. ASA* (n 295) para 4; *Clyde River (Hamlet) v Petroleum Geo-Services Inc* (n 295) para 3.

¹⁷⁹⁶ *Clyde River (Hamlet) v TGS-NOPEC Geophysical Co. ASA* (n 295) para 6.

¹⁷⁹⁷ *ibid* 7.

¹⁷⁹⁸ *ibid* 8.

¹⁷⁹⁹ *ibid* 10–16, 18–25.

to the duty to consult, the court concluded that there was a duty but that the National Energy Board has dispensed with that duty *inter alia* through the holding of community meetings and the production of a ‘Question and Response document’.¹⁸⁰⁰ In terms of the environmental impacts, the court said that although the National Energy Board had concluded that there was a risk of severe environmental consequences, once the appropriate mitigation measures had been identified, these would be sufficient to ‘minimise the possibility of marine mammals occurring in close enough proximity to the airgun discharge to suffer permanent or temporary hearing damage or behavioural change’.¹⁸⁰¹ This was sufficient to decide that the Board was not unreasonable in accepting that issuing the authorisation would not lead to adverse environmental impacts.¹⁸⁰² Finally, the court held that there was no requirement for the Board to consult the Nunavut Wildlife Management Board.¹⁸⁰³ This was because, although the Nunavut Land Claims Agreement requires consultation with the Wildlife Management Board in ‘wildlife management’ decisions, the issuing of a Geophysical Operations Authorisation was not a wildlife management decision.¹⁸⁰⁴ The court briefly considered the treaty rights of the villagers to harvest marine mammals but dismissed the argument in four sentences.¹⁸⁰⁵ This point would be considered in much more detail by the Supreme Court and would prove to be central to the case. Madam Justice Eleanor Dawson therefore dismissed the application for judicial review, supported by both Mr Justice Marc Nadon and Mr Justice Richard Boivin.¹⁸⁰⁶

Leave to appeal to the Supreme Court was granted on 10 March 2016 and the case was heard on 30 November 2016.¹⁸⁰⁷ At the Supreme Court the appeal focussed less on the issue of species protection and more on the question of whether or not the local people had been consulted sufficiently given the impact of the seismic testing on their indigenous treaty rights to harvest marine mammals.¹⁸⁰⁸ These treaty rights are, however, bound up with the seismic testing’s ‘environmental impact’ and with the ability of the local people to hunt.¹⁸⁰⁹ The court recognised that the Crown has a duty to consult indigenous people whenever

¹⁸⁰⁰ *ibid* 65, 84, 100.

¹⁸⁰¹ *ibid* 108.

¹⁸⁰² *ibid* 106–110.

¹⁸⁰³ *ibid* 113–118.

¹⁸⁰⁴ *ibid*; Nunavut Land Claims Agreement, Article 15.3.4.

¹⁸⁰⁵ *Clyde River (Hamlet) v TGS-NOPEC Geophysical Co. ASA* (n 295) paras 111–112.

¹⁸⁰⁶ *ibid* 111.

¹⁸⁰⁷ *Clyde River (Hamlet) v Petroleum Geo-Services Inc* (n 295).

¹⁸⁰⁸ *ibid* 18.

¹⁸⁰⁹ *ibid* 33.

their Aboriginal or treaty rights may be affected.¹⁸¹⁰ The duty is important because is part of the process of reconciliation between indigenous people in Canada and the Canadian government.¹⁸¹¹ In this case, the duty should have been fulfilled by the National Energy Board which was the agency to which decision making had been delegated.¹⁸¹²

Given the importance of the right to harvest marine mammals, the level of consultation which was required was what is known as ‘deep consultation’.¹⁸¹³ The mayor of Kanngiqtugaapik explained why harvesting marine mammals was so important to the community, saying it ‘provides us with nutritious food; enables us to take part in practices we have maintained for generations; and it enables us to maintain close relationships with each other through the sharing of what we call ‘country food’’.¹⁸¹⁴ Deep consultation was also required because the risks to the marine mammals were potentially severe with the possibility of an ‘increased mortality rate’, ‘permanent hearing damage’ and changes in migration routes, all of these also impacting on the right of the people of Kanngiqtugaapik to hunt.¹⁸¹⁵ The Supreme Court found that the National Energy Board’s consultation was insufficient because during the public meetings the respondent companies were ‘unable to answer many questions, including basic questions about the effect of the proposed testing on marine mammals’.¹⁸¹⁶ While the questions were eventually answered, the answers were published in a document which was almost 4,000 pages long which was all but inaccessible because it was posted on the internet and was too large to download in the village where internet access is slow and expensive, and only a very small part of the response was translated into Inuktitut.¹⁸¹⁷ As a result, the court found in favour of the villagers, overturned the decision of the Court of appeal and quashed the authorisation granted by the National Energy Board.

¹⁸¹⁰ *ibid* 19, 24.

¹⁸¹¹ *ibid*.

¹⁸¹² *ibid* 30–34.

¹⁸¹³ *ibid* 43.

¹⁸¹⁴ *ibid* 43.

¹⁸¹⁵ *ibid* 44.

¹⁸¹⁶ *ibid* 49.

¹⁸¹⁷ *ibid*.

C. Greenland

C.1. History and Geography

Greenland is the largest island in the world, at over 2 million km².¹⁸¹⁸ Almost the entire country is covered in an enormous ice cap which blankets the centre of the island with ice up to three kilometres thick throughout the whole year.¹⁸¹⁹ Only the coastline is free from ice; most of the 44,000km of coastline is barren and mountainous, with fjords cutting into the land and glaciers calving down from the ice cap, delivering icebergs into the ocean.¹⁸²⁰ The rocky coastal landscape is mostly permafrost in the northern two thirds of the island.¹⁸²¹ In the northeast the national park provides an enormous untamed wilderness habitat for thousands of migratory birds and Arctic animals.¹⁸²² Greenland has a predominately Arctic climate with long cold winters and short cool summers.¹⁸²³ Winter temperatures range from about -7°C in the relatively warm south to -34°C in the north.¹⁸²⁴ In the high Arctic, temperatures rarely rise above 5°C, even in the summer.¹⁸²⁵ Along with warmer temperatures the south experiences considerably more precipitation, in the form of both rain and snow.¹⁸²⁶ Precipitation levels in the north are so low that much of the area is classified as a polar desert.¹⁸²⁷ The majority of Greenland lies north of the Arctic Circle and therefore experiences both polar night and midnight sun.¹⁸²⁸ In the northern parts of the island, the winter darkness and summer light last about four months each.¹⁸²⁹ The long, dark winter and Greenland's northern location mean that the northern lights are frequently

¹⁸¹⁸ Vibe Ulfbeck, Anders Møllmann and Bent Ole Gram Mortensen, *Responsibilities and Liabilities for Commercial Activity in the Arctic: The Example of Greenland* (Routledge 2016) 6.

¹⁸¹⁹ *ibid.*

¹⁸²⁰ *ibid.*

¹⁸²¹ Central Intelligence Agency, 'Greenland' (*World Factbook*)

<https://www.cia.gov/library/publications/the-world-factbook/geos/print_gl.html> accessed 13 April 2019.

¹⁸²² 'The National Park' (*Visit Greenland*) <<https://visitgreenland.com/about-greenland/national-park/>> accessed 28 March 2019.

¹⁸²³ 'Greenland - History, Geography, & Culture' (*Encyclopedia Britannica*)

<<https://www.britannica.com/place/Greenland>> accessed 13 April 2019.

¹⁸²⁴ *ibid.*

¹⁸²⁵ 'Kalaallit Nunaat High Arctic Tundra' (n 299).

¹⁸²⁶ 'Greenland - History, Geography, & Culture' (n 1823).

¹⁸²⁷ *ibid.*

¹⁸²⁸ Central Intelligence Agency (n 1821).

¹⁸²⁹ 'Qaanaaq' (*Visit Greenland*) <<https://visitgreenland.com/destinations/qaanaaq/>> accessed 14 April 2019.

visible, even in the centre of Nuuk.¹⁸³⁰

About 56,000 people live in Greenland, in towns and villages tucked along the coastline.¹⁸³¹ About 17,000 people live in the capital Nuuk and all but a small minority live in 17 other smaller towns; about 15% of the population lives in the remaining 120 small communities with fewer than 500 residents.¹⁸³² The city of Nuuk is small but is well equipped with a hospital, schools, a university, swimming pool, churches, shops and a hotel and guesthouses. There is a new cultural centre, Katuaq, which shows films in Danish and Greenlandic and hosts concerts, lectures and performances.¹⁸³³ The large majority of the population, almost 90% are indigenous Greenlandic Inuit and this has a large influence on the culture with traditional activities such as hunting, particularly traditional hunting with qajaqs and harpoons, fishing, drum dancing and handicrafts remaining important within most communities.¹⁸³⁴ There are no road or rail connections between the communities and transport between towns is by boat, plane, helicopter, dog sled or snowmachine.¹⁸³⁵ The communities north of Sisimuit experience frozen seas during the winter and are only accessible by boat from May onwards, although as a result of climate change the sea ice is thawing earlier with each passing year.¹⁸³⁶

Greenland is not considered to be an independent sovereign nation.¹⁸³⁷ It is, instead, part of an arrangement with Denmark and the Faroe Islands which together make up the Kingdom (or Realm) of Denmark.¹⁸³⁸ It is the Kingdom of Denmark, rather than any of its constituent parts, which is recognised as a state at an international level. At the same time, the arrangement is not a federal system – each of the constituent parts of the Realm are equal with no overarching federal government. In practice, however, Denmark, as the most populous and wealthiest part of the Kingdom, holds the most power within the Kingdom.

¹⁸³⁰ 'Kalaallit Nunaat High Arctic Tundra' (n 299).

¹⁸³¹ Ulfbeck, Møllmann and Mortensen (n 1818) 6–7.

¹⁸³² *ibid* 6; 'Facts about Greenland' (*Naalakkersuisut*) <<https://naalakkersuisut.gl/en/About-government-of-greenland/About-Greenland/Facts-about-Greenland>> accessed 13 April 2019.

¹⁸³³ 'Katuaq' <<https://katuaq.gl/en/>> accessed 13 April 2019.

¹⁸³⁴ Central Intelligence Agency (n 1821); Tine Pars, Merete Osler and Peter Bjerregaard, 'Contemporary Use of Traditional and Imported Food among Greenlandic Inuit' (2001) 54 *Arctic* 22; Dahl (n 304); 'Greenland - History, Geography, & Culture' (n 1823).

¹⁸³⁵ Ulfbeck, Møllmann and Mortensen (n 1818) 6.

¹⁸³⁶ 'Facts about Greenland' (n 1832).

¹⁸³⁷ Constitution of Denmark, Act No 169 of 5 June 1953; Mortensen (n 301) 12.

¹⁸³⁸ Mortensen (n 301) 12.

Unlike in the USA or Canada, there is no superior, federal law.¹⁸³⁹ Instead, some areas of responsibility lie with the Danish parliament and other areas of responsibility have been transferred to Greenland.¹⁸⁴⁰ Mortensen describes the system as ‘having three autonomous legal societies with one common Constitution’.¹⁸⁴¹

The first people to live in Greenland are thought to have immigrated in waves from North America.¹⁸⁴² They had been coming to Greenland for centuries before Norse settlers discovered the island in the tenth century but it appears that they had died out, leaving the island uninhabited by the time the Norsemen arrived.¹⁸⁴³ The Norse settlers survived for almost five hundred years but, like their predecessors, eventually succumbed to the harsh environment of Greenland, either starving to death or abandoning their settlements for North America or Iceland.¹⁸⁴⁴ It is also possible that the Norse settlers came into conflict with the Thule people who arrived from North America in the 12th Century and who are the ancestors of the present day Inuit people in Greenland.¹⁸⁴⁵ The Thule people adapted well, using hunting and fishing skills to gather animals on both land and sea but contact with Europe was eventually lost.

Having rediscovered Greenland in the 16th Century, the Danes, and other countries, sent numerous trade and whaling expeditions to the island and in 1721, missionary Hans Egede arrived from Denmark and established contact with the Inuit people.¹⁸⁴⁶ From the early 18th Century until 1953, Greenland was a colony of Denmark.¹⁸⁴⁷ Unlike in some colonial systems, Greenlandic residents were given citizenship of Denmark with the rights and responsibilities which came with it but the country was still included on the United Nation’s list of nonself-governing territories.¹⁸⁴⁸ In 1953, the Danish constitution was amended to

¹⁸³⁹ *ibid* 17.

¹⁸⁴⁰ *ibid*.

¹⁸⁴¹ *ibid*.

¹⁸⁴² Crantz (n 297) 221–224.

¹⁸⁴³ *ibid*.

¹⁸⁴⁴ J Arneborg and others, ‘C-14 Dating and the Disappearance of Norsemen from Greenland’ (2002) 33 *Europhysics News* 77.

¹⁸⁴⁵ Crantz (n 297); William J D’Andrea and others, ‘Abrupt Holocene Climate Change as an Important Factor for Human Migration in West Greenland’ (2011) 108 *Proceedings of the National Academy of Sciences* 9765; Arneborg and others (n 1844).

¹⁸⁴⁶ Hans Egede, *A Description of Greenland* (T & J Allman 1818).

¹⁸⁴⁷ Alexander Hviid and Forsvarsakademiet, *Till Kingdom Come? An Analysis of Greenland as the Danish Link to the Arctic* (RDDC Publishing House 2014) 5.

¹⁸⁴⁸ ‘The United Nations and Decolonization - Trust and Non-Self-Governing Territories (1945-1999)’ <<http://www.un.org/en/decolonization/nonselfgov.shtml#d>> accessed 5 September 2017.

read '[t]his Constitutional Act shall apply to all part of the Kingdom of Denmark'.¹⁸⁴⁹ As a result, Greenland was incorporated as a part of the realm rather than as a colony.¹⁸⁵⁰ Great efforts were made to modernise the country which saw improvements in education, healthcare, social welfare and living standards.¹⁸⁵¹ At the same time, however, there was a growing distrust of Danish incomers who arrived to take well paid, high status jobs which the local people could not access.¹⁸⁵² This resentment led to calls for greater independence for Greenland.¹⁸⁵³ In 1973 Denmark began the process of granting autonomy to Greenland within the constitutional structure of the realm by appointing the Greenland Home Rule Committee to consider the matter.¹⁸⁵⁴ Home Rule was granted on 1 May 1979 under the Act on Greenland Home Rule 1978 which was passed by the Danish Folketinget and then approved by the Greenlandic people in a referendum held on 17 January 1979.¹⁸⁵⁵ Under the Act on Home Rule, the Danish parliament delegated its powers in relation to certain matters to Greenland while retaining all rights over matters which related to the Realm as a whole such as the constitution, foreign policy, the legal system and defence.¹⁸⁵⁶ Gradually, over the next twenty years, Greenland was given authority to govern itself in areas such as taxation, fishing, hunting and agriculture, reindeer breeding, education, cultural affairs, social welfare, health services, trade, housing and employment.¹⁸⁵⁷ A Greenland Legislative Assembly, the Landsting, was created from the former Greenland Provincial Council which had previously held an advisory role and a cabinet, the Greenland Council or Landsstyre was formed.¹⁸⁵⁸ Together these bodies exercised legislative and executive power in Greenland with the former being elected by the people of Greenland

¹⁸⁴⁹ Constitution of Denmark, Act No 169 of 5 June 1953.

¹⁸⁵⁰ Mortensen (n 301) 13; Constitution of Denmark, Act No 169 of 5 June 1953; Terence Armstrong, George Rogers and Graham Rowley, *The Circumpolar North* (Methuen & Co Ltd 1978) 176–177.

¹⁸⁵¹ Armstrong, Rogers and Rowley (n 1850) 177–178.

¹⁸⁵² *ibid.*

¹⁸⁵³ *ibid* 178.

¹⁸⁵⁴ 'United Nations Economic and Social Council Permanent Forum on Indigenous Issues: Information Received from Governments - Denmark and Greenland. E/C.19/2009/4/Add.4' 3

<http://www.un.org/esa/socdev/unpfii/documents/E_C_19_2009_4_Add_4_en.pdf> accessed 6 September 2017.

¹⁸⁵⁵ *ibid*; Danish Act No 577 of 29 November 1978 on Greenland Home Rule.

¹⁸⁵⁶ Armstrong, Rogers and Rowley (n 1850) 202; Danish Act No 577 of 29 November 1978 on Greenland Home Rule.

¹⁸⁵⁷ 'United Nations Economic and Social Council Permanent Forum on Indigenous Issues: Information Received from Governments - Denmark and Greenland. E/C.19/2009/4/Add.4' (n 1854) 4; Nordiska Ministerrådet, *Polar Law Textbook* (Nordiska ministerrådets förlag 01) 173–174.

¹⁸⁵⁸ Armstrong, Rogers and Rowley (n 1850) 203.

and the latter appointed by the members of the Landsting.¹⁸⁵⁹

C.2. Government and Legal System

C.2.1. Self Government

By the early 2000s, calls were being made for additional areas of responsibility to be transferred to Greenland to allow a greater level of independence.¹⁸⁶⁰ In 2008 a referendum was held in Greenland which saw support of over 75% for increased levels of autonomy, confirming the proposals of the Greenland Home Rule Commission.¹⁸⁶¹ Greenland's current Home Rule arrangements were introduced in 2009.¹⁸⁶² The Act on Greenland Self Government was passed on 12 June 2009 and Self Government was established nine days later on 21 June 2009.¹⁸⁶³ It establishes that the people of Greenland have the right to self-determination under international law and declares itself to be a mutually agreed arrangement between the Danish and Greenlandic governments 'as equal partners'.¹⁸⁶⁴

The Act on Greenland Self Government provided for the transfer of additional areas of responsibility from the Danish government to Greenland in addition to those previously transferred.¹⁸⁶⁵ While some areas of responsibility, such as defence, foreign policy, security, the Supreme Court, citizenship and monetary policy are retained by the Danish government, all other areas of responsibility could be transferred to Greenland at some point in the future. The act split these new fields of responsibility which are able to be transferred into two lists, included in the schedule to the act.¹⁸⁶⁶ List I contained the responsibilities that would be transferred at a time to be appointed by the government of Greenland without any further consent being required.¹⁸⁶⁷ List II contained fields of responsibility which could be transferred but only following negotiation with the 'central

¹⁸⁵⁹ 'United Nations Economic and Social Council Permanent Forum on Indigenous Issues: Information Received from Governments - Denmark and Greenland. E/C.19/2009/4/Add.4' (n 1854) 6.

¹⁸⁶⁰ *ibid* 4.

¹⁸⁶¹ Mortensen (n 301) 13; 'United Nations Economic and Social Council Permanent Forum on Indigenous Issues: Information Received from Governments - Denmark and Greenland. E/C.19/2009/4/Add.4' (n 1854) 4–5.

¹⁸⁶² Mortensen (n 301) 13; Danish Act No 473 of 12 June 2009 on Greenland Self-Government.

¹⁸⁶³ Danish Act No 473 of 12 June 2009 on Greenland Self-Government; Nordiska Ministerrådet (n 1857) 171; Danish Act No 473 of 12 June 2009 on Greenland Self-Government s 22.

¹⁸⁶⁴ Danish Act No 473 of 12 June 2009 on Greenland Self-Government Preamble, English translation.

¹⁸⁶⁵ *ibid* 1–2, 23.

¹⁸⁶⁶ *ibid* 2.

¹⁸⁶⁷ *ibid* 3.

authorities of the Realm'.¹⁸⁶⁸ List I included just five fields of responsibility, industrial injury compensation, the areas of health care not previously transferred, road traffic law, the laws of property and obligations and commercial driving.¹⁸⁶⁹ List II was a much longer list of twenty eight fields of responsibility and included areas such as border control, family law, legal practice, crime and mineral resources.¹⁸⁷⁰ Section 4 of the act allowed for other fields of responsibility not included in the Schedule to be transferred following negotiation where the responsibility is the exclusive concern of Greenland.¹⁸⁷¹ When all areas of responsibility have been transferred, Greenland will have full control over almost all aspects of internal affairs.¹⁸⁷²

The Danish Constitution was never amended to allow for Home Rule or Self-Government and instead permission was granted by way of legislation in the Danish parliament.¹⁸⁷³ This makes Self-Government theoretically vulnerable to amendment but public opinion is so much in favour of autonomy for Greenland that it would be highly unlikely to be revoked.¹⁸⁷⁴ Unilateral revocation would be considered to be contrary to the 'principles of equality and mutual respect' discussed in the preamble to the Act on Greenland Self-Government.¹⁸⁷⁵ In addition, the Self-Government Act 2009 states that Greenlanders have the right to self-determination under international law and as self-determination is considered to be *jus cogens* under international law, it would not be possible to remove Self-Government without the consent of the Greenlandic people.¹⁸⁷⁶

Despite having a fairly high level of political autonomy, Greenland remains financially dependent on Denmark. Each year, a block grant is transferred to enable the Greenlandic government to pay for public services.¹⁸⁷⁷ In 2009, the block grant was DKK 3,439.6 million and this is adjusted each year to take into account inflation.¹⁸⁷⁸ In 2016 the block

¹⁸⁶⁸ *ibid.*

¹⁸⁶⁹ *ibid* Schedule.

¹⁸⁷⁰ Danish Act No 577 of 29 November 1978 on Greenland Home Rule, Schedule.

¹⁸⁷¹ Danish Act No 473 of 12 June 2009 on Greenland Self-Government s 4.

¹⁸⁷² Mortensen (n 301) 18.

¹⁸⁷³ Danish Act No 473 of 12 June 2009 on Greenland Self-Government; Danish Act No 577 of 29 November 1978 on Greenland Home Rule.

¹⁸⁷⁴ Mortensen (n 301) 13–14.

¹⁸⁷⁵ Danish Act No 473 of 12 June 2009 on Greenland Self-Government s Preamble; Nordiska Ministerrådet (n 1857) 183.

¹⁸⁷⁶ Danish Act No 473 of 12 June 2009 on Greenland Self-Government.

¹⁸⁷⁷ *ibid* 5.

¹⁸⁷⁸ *ibid.*

grant amounted to DKK 3,682.3 million.¹⁸⁷⁹ In fields where Greenland has taken over responsibility they are expected to assume responsibility for paying for the area and no adjustment is made to the block grant as a result.¹⁸⁸⁰ Any assets related to a field of responsibility which is being transferred will, however, be handed to Greenland at no cost.¹⁸⁸¹ This financial burden has prevented Greenland from taking over many of the areas of responsibility which it is entitled to do under the Act on Greenland's Self-Government.¹⁸⁸² The block grant is something of a mixed blessing; without it Greenland would be unable to function but at the same time it makes Greenland dependent on the Realm and prevents it from achieving independence.

In order to gain financial independence, and alongside it, statehood, Greenland would have to find the money to replace the block grant and fund the cost of the fields of administration organised by the Realm.¹⁸⁸³ In addition, the population is growing older with all of the attendant social welfare and health costs that this brings with it.¹⁸⁸⁴ One report placed the cost at DKK 5 billion per year.¹⁸⁸⁵ Realistically, the only way in which Greenland will become financially independent is if a significant source of natural resources is discovered which can be exploited.¹⁸⁸⁶ The hope is that there will be significant discoveries of mineral deposits to be found in Greenland which will provide the necessary funds.¹⁸⁸⁷ As a result of this hope, the Act on Greenland Self Government makes provision for significant changes in the Greenlandic economy as a result of the discovery of mineral deposits.¹⁸⁸⁸ Section 7 states that any revenue from mineral resources will accrue to the Greenlandic government but in any year where in any year such revenue amounts to over DKK 75 million, the block grant will be reduced by half the amount over that limit.¹⁸⁸⁹ The DKK 75 million limit is adjusted upwards in accordance with inflation over time.¹⁸⁹⁰ If the

¹⁸⁷⁹ Bolatta Vahl and Naduk Kleemann (eds), 'Greenland in Figures 2017' 7
<<http://www.stat.gl/publ/kl/GF/2017/pdf/Greenland%20in%20Figures%202017.pdf>> accessed 7 September 2017. This is approximately £452 million per year.

¹⁸⁸⁰ Danish Act No 473 of 12 June 2009 on Greenland Self-Government s 6.

¹⁸⁸¹ *ibid.*

¹⁸⁸² Mortensen (n 301) 18.

¹⁸⁸³ *ibid* 17.

¹⁸⁸⁴ *ibid*; Minik Rosing and others, 'To the Benefit of Greenland' 9–10.

¹⁸⁸⁵ Rosing and others (n 1884) 10.

¹⁸⁸⁶ Armstrong, Rogers and Rowley (n 1850) 203.

¹⁸⁸⁷ Rosing and others (n 1884).

¹⁸⁸⁸ Danish Act No 473 of 12 June 2009 on Greenland Self-Government ss 7–10.

¹⁸⁸⁹ *ibid* 8.

¹⁸⁹⁰ *ibid.*

revenue from mineral resources becomes so great that the block grant will be reduced to zero then negotiations will take place between the Danish government and Naalakkersuisut regarding the future of the financial position of Greenland.¹⁸⁹¹

While Denmark is a member of the European Union, Greenland is not. Greenland entered the European Communities as part of the Kingdom of Denmark in 1973 despite 72% of Greenlanders voting against accession compared with 63.3% in favour for the Realm as a whole.¹⁸⁹² When Greenland was granted Home Rule, it had the opportunity to decide whether to remain a member of the European Communities.¹⁸⁹³ In a referendum in 1982, a small majority of Greenlanders voted to leave, mostly concerned about European fishing policies.¹⁸⁹⁴ After two years of discussions, a treaty was concluded in 1984 and Greenland formally left the European Communities on 1 February 1985.¹⁸⁹⁵ The Greenland Treaty amended the various treaties establishing the European Communities, and now the Treaty on the Functioning of the European Union, so that they no longer apply to Greenland.¹⁸⁹⁶ A protocol to the treaty designated Greenland as an Overseas Country and Territory and secured customs-free access to the European Communities for Greenlandic exports.¹⁸⁹⁷

C.2.2. Naalakkersuisut and Inatsisartut

As a result of the Act on Greenland Self Government, the names of the Greenlandic governmental institutions were changed to reflect their Greenlandic names, as was appropriate given that they were serving the Greenlandic people who had exercised their right to self-determination.¹⁸⁹⁸ The parliament was renamed Inatsisartut, which means ‘those who make laws’, and the government adopted the Greenlandic name,

¹⁸⁹¹ *ibid* 10.

¹⁸⁹² Armstrong, Rogers and Rowley (n 1850) 178; Aleks Szczerbiak and Paul Taggart, *EU Enlargement and Referendums* (Routledge 2013) 4; Mortensen (n 301) 23.

¹⁸⁹³ Christian Rebhan, *North Atlantic Euroscepticism* (Faroe University Press 2016) 115.

¹⁸⁹⁴ Herman Lelieveldt and Sebastiaan Princen, *The Politics of the European Union* (Cambridge University Press 2015) 124; Lee Miles, *The European Union and the Nordic Countries* (Psychology Press 1996) 9; Virginie Mamadouh, ‘The Territoriality of European Integration and the Territorial Features of the European Union: The First 50 Years’ (2001) 92 *Tijdschrift voor economische en sociale geografie* 420, 426; Rebhan (n 1893) 71.

¹⁸⁹⁵ Mortensen (n 301) 23; Mamadouh (n 1894) 426; Daniela Obradovic, ‘Repatriation of Powers in the European Community’ (1997) 34 *Common Market Law Review* 59, 65–66.

¹⁸⁹⁶ Treaty Amending, with Regard to Greenland, the Treaties Establishing the European Communities [1985] OJ L29/1.

¹⁸⁹⁷ Protocol on Special Arrangements for Greenland [1985] OJ L29/7; Rebhan (n 1893) 119.

¹⁸⁹⁸ Danish Act No 473 of 12 June 2009 on Greenland Self-Government s 1; Bureau for Inatsisartut, *Guided Tour of Inatsisartut* (Bureau for Inatsisartut 2015) 7.

Naalakkersuisut.¹⁸⁹⁹ In the areas for which responsibility has been transferred to Greenland, Inatsisartut and Naalakkersuisut have exclusive legislative and executive power.¹⁹⁰⁰ In other areas, the Danish Folketinget (Danish Parliament) will legislate for Greenland. However, the preamble to the Act on Greenland Self-Government makes it clear that the relationship between the Danish Government and the Greenlandic Government is one of ‘mutual respect’ and ‘partnership’.¹⁹⁰¹

Executive power in Greenland is held by Naalakkersuisut (the Greenlandic government).¹⁹⁰² Naalakkersuisut is not elected by the people.¹⁹⁰³ Instead, following their election, Inatsisartut appoints a Siulittaasuat or Formanden (Premier) from among their number.¹⁹⁰⁴ The Siulittaasuat then appoints a cabinet of ministers who oversee the various ministries.¹⁹⁰⁵ Naalakkersuisut is often formed from a coalition of different political parties.¹⁹⁰⁶ Naalakkersuisut can only act within the powers granted to it by Inatsisartut and any decision that they make must comply the laws passed by Inatsisartut.¹⁹⁰⁷

Inatsisartut, the Greenlandic Parliament, is the body with legislative power for all matters which come under the control of Greenland as a result of Self-Government.¹⁹⁰⁸ Inatsisartut is a unicameral body led by a Chairman or President (*Inatsisartut Siulittaasuat*).¹⁹⁰⁹ There are 31 members, each elected by the Greenlandic people for a term of four years.¹⁹¹⁰ Elections take place by means of proportional representation.¹⁹¹¹

C.2.3. Legal System

C.2.3.1. The Evolution of Greenlandic Law – From Independence to Independence

¹⁸⁹⁹ Danish Act No 473 of 12 June 2009 on Greenland Self-Government s 1; Bureau for Inatsisartut (n 1898) 7.

¹⁹⁰⁰ Danish Act No 473 of 12 June 2009 on Greenland Self-Government s 1.

¹⁹⁰¹ *ibid* Preamble.

¹⁹⁰² *ibid* 1.

¹⁹⁰³ ‘Naalakkersuisut’ <<https://naalakkersuisut.gl/en/Naalakkersuisut>> accessed 25 July 2019.

¹⁹⁰⁴ *ibid*.

¹⁹⁰⁵ *ibid*.

¹⁹⁰⁶ *ibid*.

¹⁹⁰⁷ ‘Handbook for Inatsisartut’ 10–11.

¹⁹⁰⁸ Mortensen (n 301) 19.

¹⁹⁰⁹ *ibid*; ‘Inatsisartut’ <<http://www.inatsisartut.gl>> accessed 12 September 2017.

¹⁹¹⁰ Mortensen (n 301) 19.

¹⁹¹¹ *ibid*.

Until the 1950s Greenland had two legal systems which operated entirely in parallel.¹⁹¹² The first was a traditional legal system, totally separate from the legal system found in Denmark which applied to Greenlanders and the second was the Danish system which applied to residents of Danish origin.¹⁹¹³ Once a decision had been made that Greenland would become part of the Kingdom of Denmark and no longer be a colony, this dualist system, with people subject to different legal systems depending on the race, could no longer continue.¹⁹¹⁴ In 1948 an expedition was sent from Denmark to Greenland to investigate the judicial system and to ‘clarify to what extent Danish law could be introduced unamended in Greenland as a common law for Danes and Greenlanders’.¹⁹¹⁵ The aim was to create, if not unity between Denmark and Greenland, at the very least, a unified system among the Danish and Greenlandic inhabitants of Greenland.¹⁹¹⁶ The expedition was made up of three young Danish jurists, Agnete Weis Bentzon, Verner Goldschmidt and Per Lindegaard.¹⁹¹⁷ The jurists had little knowledge of anthropological methods and only their own studies of law in Copenhagen to compare with the Greenlandic system.¹⁹¹⁸ They spent 16 months travelling by boat up and down the west coast of Greenland, interviewing informants representing various areas of life in the towns and trading stations which they visited.¹⁹¹⁹

The result of the Jurex expedition was a six volume report detailing, for the first time, the customary legal system which existed at the time in Greenland.¹⁹²⁰ The traditional system in Greenland was not written down. The expedition team expected to find elders or others in each village who would be able to explain the laws in a way similar to the *logsogur madr* or law speaker found in traditional Nordic culture.¹⁹²¹ They found none of these; indeed, almost no one could recount the legal principles or rules by which Greenlandic society was

¹⁹¹² Henning Brønsted, ‘The Historical Development of the Greenlandic Judicial System’ in Henrik Garlik Jensen and Torben Agersnap (eds), *Crime, Law and Justice in Greenland* (New Social Science Monographs 1996) 119–120.

¹⁹¹³ Natalia Loukacheva, *The Arctic Promise* (University of Toronto Press 2007) 90; Brønsted (n 1912) 119–120.

¹⁹¹⁴ Brønsted (n 1912) 120.

¹⁹¹⁵ Agnete Weis Bentzon, ‘JUREX Reconsidered’ in Henrik Garlik Jensen and Torben Agersnap (eds), *Crime, Law and Justice in Greenland* (New Social Science Monographs 1996) 100.

¹⁹¹⁶ Bentzon (n 1915).

¹⁹¹⁷ *ibid* 97.

¹⁹¹⁸ *ibid* 102–103.

¹⁹¹⁹ *ibid* 100–101.

¹⁹²⁰ *ibid* 97.

¹⁹²¹ *ibid* 104.

governed.¹⁹²² Instead, people could only discuss specific cases and describe how those cases had been resolved.¹⁹²³

The report of the Jurex expedition was used by the Greenlandic Law Committee in order to prepare , during the 1950s a Danish legal system was imposed on Greenland in the form of, initially, the Greenland Administration of Justice Act 1951, followed by the Greenland Criminal Code which was adopted in 1954.¹⁹²⁴ Greenland was separated into eighteen districts each with its own District Court[s]. These Courts were the courts of first instance for both criminal and civil cases. Appeals from the District Courts were initially to the High Court of Greenland and, from there, to the High Court of Eastern Denmark and then to the Danish Supreme Court.¹⁹²⁵ The system was presided over mostly by lay assessors and judges with little to no legal or judicial training but having the benefit of coming from the local community and of speaking Greenlandic.¹⁹²⁶ The High Court of Greenland had a legally trained judge appointed by the monarch.¹⁹²⁷ This judge was assisted by two lay assessors elected by the Greenlandic *Landsting*.¹⁹²⁸ Where the lay assessors and judge of a District Court felt unable to make a decision on a case, they were able to refer the case to the High Court of Greenland for a decision at first instance.¹⁹²⁹

The aim of the system was to balance, so far as could probably have been expected of a colonial power in the 1950s, the local and cultural needs of the indigenous population with the desire to remove the dualist legal system which had developed in Greenland and bring the judicial system into line with that of Denmark. The report of the Jurex expedition recognised the need for ‘due consideration of differences in material and cultural conditions between Denmark and Greenland’.¹⁹³⁰ The use of lay assessors from the local community and who spoke the local language was an attempt to ensure that decisions made at first instance were both linguistically and culturally intelligible for those at whom they were

¹⁹²² *ibid* 104–105.

¹⁹²³ *ibid* 105.

¹⁹²⁴ Danish Act No 271 of 14 June 1951 on the Administration of Justice in Greenland; Greenland Criminal Code 1954.

¹⁹²⁵ Loukacheva (n 1913) 91.

¹⁹²⁶ *ibid*.

¹⁹²⁷ *ibid*.

¹⁹²⁸ *ibid*.

¹⁹²⁹ *ibid*.

¹⁹³⁰ Agnete Weis Bentzon, ‘Law and Legislation in Greenland during the Transition from Colonial Status to Home Rule Status (1945-1980)’ (1986) 1 *Law and Anthropology* 199, 202; Loukacheva (n 1913) 90.

directed.¹⁹³¹ It was also a response to the logistical problems in Greenland with villages only accessible by boat and, later, plane (and often neither in the winter) and the lack of legal education available in Greenland.

C.2.3.2. Modern Greenlandic Legal System

In many ways, the modern Greenlandic legal system is little changed from the system which was created in the 1950s with its unique mixture of western and traditional legal values and court structures. The legal system would be classified as a Nordic legal system in the way as the Danish legal system.¹⁹³² Nordic legal systems are civil law systems, relying on codification of laws. Denmark, however, has a much less inquisitorial style than many civil law countries with lawyers and prosecutors presenting their cases to an independent judge.¹⁹³³ Greenland has adopted a similar system while still retaining the traditional system which existed before the 1950s, particularly in relation to the courts of first instance.

C.2.4. Sources of Law

Sources of law in Greenland come from a hierarchy of laws.¹⁹³⁴ At the top is the Constitution of Denmark which applies equally to Greenland, followed by the constitutional acts which granted Self Government to Greenland.¹⁹³⁵ The next level of laws is found in the legislation and other codified works passed by Inatsisartut and the Folketinget.¹⁹³⁶ When interpreting statutes, the role of preparatory materials is important, like it is in other civil law countries. Statutory law grants Naalakkersuisut the authority to pass regulations which provide more detailed rules.¹⁹³⁷ Although less important than in common law countries, case precedents from the more senior courts do play a role in interpreting statutes and regulations.¹⁹³⁸ Finally, in Greenland, the role of traditional indigenous law and customary law remains important and sets the Greenlandic legal system apart from the Danish one.

¹⁹³¹ Loukacheva (n 1913) 91–92.

¹⁹³² Zweigert and Kötz (n 99) 276–285.

¹⁹³³ *ibid*; Kritzer, *Legal Systems of the World* (n 729) 423.

¹⁹³⁴ Rasmus H Wandall and Ditlev Veit, 'Researching Law in Denmark' (*GlobaLex*) <<http://www.nyulawglobal.org/globalex/Denmark1.html>> accessed 6 July 2019.

¹⁹³⁵ *ibid*; Constitution of Denmark, Act No 169 of 5 June 1953; Danish Act No 473 of 12 June 2009 on Greenland Self-Government.

¹⁹³⁶ Wandall and Veit (n 1934).

¹⁹³⁷ *ibid*.

¹⁹³⁸ *ibid*.

C.2.5. Courts in Greenland

The Act on Self Government 2009 allowed for the transfer of the Greenlandic judicial system to the Greenlandic Government.¹⁹³⁹ Prior to this, despite Home Rule, the third branch of government had been retained by the Danish government with only the legislative and executive branches of government operated by Greenland.¹⁹⁴⁰ In fact, there was nothing preventing the Home Rule Government from establishing a separate court system within Greenland but as Harhoff explained in 1994 ‘the existing Danish courts have proved to be loyal the Home Rule legislation and there has been no incentive to institute a parallel and costly separate system of courts’.¹⁹⁴¹ With the creation of Self Government and the transfer of justice, however, a Greenlandic court system was established.¹⁹⁴²

The judicial system in Greenland is governed by the Administration of Justice Act 2008 (as amended) which is an act passed by the Danish Folketinget anticipating the transfer of judicial power.¹⁹⁴³ It came into force on 1 January 2010 when judicial power was transferred to Greenland.¹⁹⁴⁴ Despite the Greenlandic government having responsibility for the administration of justice there has been no act passed by the Inatsisartut to replicate the act and the most recent amendments, made in 2017, were made by the Folketinget.¹⁹⁴⁵ The act sets out the various arrangements for the judicial system in Greenland, including establishing and reorganising the Kredsretter, the Retten i Grønland and the Grønlands Landsret.¹⁹⁴⁶

The Eqqartuussisoqarfiit or Kredsretter (District Courts) are the courts of first instance in Greenland. When justice was first transferred to Greenland, there were 18 Kredsretter, one

¹⁹³⁹ Danish Act No 473 of 12 June 2009 on Greenland Self-Government s 1.

¹⁹⁴⁰ *ibid.*

¹⁹⁴¹ Frederik Harhoff, ‘The Status of Indigenous Peoples under International Law: Greenland and the Right to Self-Determination’ (1994) 32 *Canadian Yearbook of International Law* 243, 251.

¹⁹⁴² Danish Act No 473 of 12 June 2009 on Greenland Self-Government s 1; Danish Act No 577 of 29 November 1978 on Greenland Home Rule.

¹⁹⁴³ Danish Act No 305 of 30 April 2008 on Administration of Justice in Greenland (Retsplejelov for Grønland).

¹⁹⁴⁴ *ibid.*; ‘Final Draft for the UNs Unersival Periodic Review 11th Session 2011 Reporting on Greenland.Pdf’ <<http://naalakkersuisut.gl/~media/Nanoq/Files/Attached%20Files/Udenrigsdirektoratet/final%20draft%20for%20the%20UNs%20unersival%20periodic%20review%2011th%20session%202011%20reporting%20on%20greenland.pdf>> accessed 13 December 2017.

¹⁹⁴⁵ Danish Act No 149 of 7 February 2017 on Amending the Administration of Justice Act and Criminal Code for Greenland (Lov om Ændring af Retsplejelov for Grønland og Kriminallov for Grønland).

¹⁹⁴⁶ Danish Act No 305 of 30 April 2008 on Administration of Justice in Greenland (Retsplejelov for Grønland).

for every town, but in recent years this has reduced and there are now just four Kredsretter, Kujalleq (in Qaqortoq, Narsaq and Nanortalik), Sermersooq (in Nuuk and Paamiut), Qaasuitsup (in Ilulissat) and Qegga (in Maniitsoq and Sisimiut).¹⁹⁴⁷ Each of these District Courts covers one of the four municipalities in Greenland. It is possible to hold court hearings in villages even if there is not a permanent court presence.¹⁹⁴⁸ For example, the court rooms in Tasiilaq and Ittoqqortoormiit do not have permanent staff on duty in the towns at all times but it is possible for court hearings to take place when they are needed.¹⁹⁴⁹

The Kredsretter in Greenland are unusual because they operate almost entirely without lawyers.¹⁹⁵⁰ This is part of the way in which the Greenlandic legal system retains its traditional form.¹⁹⁵¹ All criminal cases and some civil cases (such as matrimonial and child care cases) begin in the Kredsretter before a lay judge.¹⁹⁵² The judges receive basic legal education but they are not lawyers and, in criminal cases, defendants are often represented by a forsvarer (defender) who will also not be a lawyer.¹⁹⁵³ Lawyers tend to represent parties in civil cases but there are only around 15 lawyers based in Greenland (with another 15-20 connected to Greenland) so there are not lawyers in each village.¹⁹⁵⁴ Lawyers will often travel to remote courts or can use videolink. Cases are heard either in Greenlandic or Danish, depending on the needs of the parties.¹⁹⁵⁵

The Kalaallit Nunaanni Eqqartuussivik or Retten i Grønland (Court of Greenland) can act as either a court of first instance or as a court of appeal from the decision of a Kredsretter.¹⁹⁵⁶ Since 2014, all civil cases dealing with disputes about money, rights or

¹⁹⁴⁷ Ulfbeck, Møllmann and Mortensen (n 1818); 'The Courts of Greenland' (3 December 2010) <<http://www.domstol.dk/om/otherlanguages/english/thedanishjudicialsystem/greenland/Pages/default.aspx>> accessed 8 August 2017.

¹⁹⁴⁸ 'Sermersooq Circuit Court' <<http://www.gl.dk.domstol.dk/groenland/kredsretter/sermersooq/Pages/default.aspx>> accessed 12 December 2017.

¹⁹⁴⁹ *ibid.*

¹⁹⁵⁰ 'Discussion with Morten Nornild, Nuuk, 11 September 2017'.

¹⁹⁵¹ *ibid.*

¹⁹⁵² *ibid.*; 'Ny Proces for Civile Sager (New Process for Civil Cases)'; 'Kredsretter' (*Grønlands Domstol*, 4 November 2016) <<http://www.gl.dk.domstol.dk/groenland/kredsretter/Pages/default.aspx>> accessed 12 December 2017; 'Civile Sager (Civil Cases)' (*Grønlands Domstol*, 2014) <<http://www.gl.dk.domstol.dk/sagstyper/Civile%20sager/Pages/default.aspx>> accessed 25 July 2019.

¹⁹⁵³ (n 1950).

¹⁹⁵⁴ *ibid.*

¹⁹⁵⁵ *ibid.*

¹⁹⁵⁶ 'Retten i Grønland' (*Grønlands Domstol*) <<http://www.gl.dk.domstol.dk/groenland/rig/Pages/default.aspx>> accessed 25 July 2019.

obligations have started in the Retten i Grønland which is based in Nuuk.¹⁹⁵⁷ The court also deals with business matters, tax, insolvency and other complex cases.¹⁹⁵⁸ The judges of the court are trained lawyers and parties are represented by lawyers.¹⁹⁵⁹ This is necessary because the cases dealt with by the Retten i Grønland tend to be more complex and beyond the ability of the untrained lay judges in the Kredsretter.¹⁹⁶⁰ Parties may request that their case be heard by the Retten i Grønland at first instance if they believe it to be sufficiently complicated to require a professional judge.¹⁹⁶¹

The Nunatta Eqqartuussisuuneqarfia or Grønlands Landsret (High Court of Greenland) is one of only three High Courts in Denmark.¹⁹⁶² Prior to its establishment, all appeals from Greenland were heard by the Østre Landsret (East High Court) based Copenhagen in Denmark.¹⁹⁶³ Since, 2010, however, it has been possible for appeals to be heard at the Grønland Landsret which sits in Nuuk.¹⁹⁶⁴ The Grønlands Landsret hears appeals from the Kredsretter and the Retten i Grønland. Cases may either be criminal or civil.¹⁹⁶⁵ The Landsret is led by the National Judge who is assisted by a deputy.¹⁹⁶⁶ Both roles require the person to be a lawyer but other staff within the court are not legally trained.¹⁹⁶⁷

The final appeal is to the Højesteret (Danish Supreme Court) which is located in Copenhagen. The court can hear appeals on any cases as there is no separate constitutional or administrative court.¹⁹⁶⁸ However, before a case can be brought to the Supreme Court, permission must be sought from the Appeals Permission Board.¹⁹⁶⁹ Permission is granted

¹⁹⁵⁷ 'Ny Proces for Civile Sager (New Process for Civil Cases)' (n 1952).

¹⁹⁵⁸ 'Retten i Grønland' (n 1956); 'Mere Om Retten i Grønland' (*Grønlands Domstol*) <<http://www.gl.dk.domstol.dk/groenland/rig/organisation/Pages/MereomRetteniGr%c3%b8nland.aspx>> accessed 25 July 2019.

¹⁹⁵⁹ (n 1950); 'Mere Om Retten i Grønland' (n 1958).

¹⁹⁶⁰ 'Mere Om Retten i Grønland' (n 1958).

¹⁹⁶¹ *ibid.*

¹⁹⁶² 'Grønlands Landsret' (*Grønlands Domstol*) <<http://www.gl.dk.domstol.dk/groenland/groenlandslandsret/Pages/default.aspx>> accessed 25 July 2019.

¹⁹⁶³ *ibid.*

¹⁹⁶⁴ *ibid.*

¹⁹⁶⁵ *ibid.*

¹⁹⁶⁶ 'Landsrettens Organisation' (*Grønlands Domstol*) <<http://www.gl.dk.domstol.dk/groenland/groenlandslandsret/organisation/Pages/default.aspx>> accessed 25 July 2019.

¹⁹⁶⁷ *ibid.*

¹⁹⁶⁸ Kritzer, *Legal Systems of the World* (n 729) 424.

¹⁹⁶⁹ 'The Danish Legal System - A Closer Look at the Courts of Denmark' <<http://www.domstol.dk/om/publikationer/HtmlPublikationer/Profil/Profilbrochure%20-%20UK/kap03.html>> accessed 12 December 2017.

in cases where a point of general importance is raised but fairly few Greenlandic cases end up in the Supreme Court.¹⁹⁷⁰ The Supreme Court has 18 professional judges and tends to sit in panels of five judges but more may sit on particularly important cases.¹⁹⁷¹ Cases are presented by lawyers although appellants are allowed to present their own case.¹⁹⁷² Unlike in the Greenlandic courts there is no provision made for a case to be heard in Greenlandic although presumably translation could be provided if necessary.

C.3. Arctic Wildlife in Greenland

While the Greenlandic ice sheet is all but inhospitable to plants and animals, the coastline of Greenland and the waters surrounding the island provide the ideal environment for many Arctic species, those living right at the 'limits of survival'.¹⁹⁷³ There are eight terrestrial species of animal which are native to Greenland, musk ox, wild reindeer, Arctic hare, Arctic fox, wolverine, Arctic wolf, ermine and northern collared lemming.¹⁹⁷⁴ These species are particularly well adapted to the cold, harsh climate found throughout Greenland and many are found in large numbers in the North and East Greenland National Park where they face very little, if any, human interference.¹⁹⁷⁵ Hunting of most terrestrial mammals (except wolf and wolverine) is conducted on a commercial and subsistence level, with reindeer hunting being particularly important.¹⁹⁷⁶ Tourists come to Greenland to catch reindeer and musk ox.¹⁹⁷⁷ As well as the terrestrial species, Greenland is home to a sizeable population of polar bears, which, strictly, are marine mammals.¹⁹⁷⁸ Polar bears are mainly found in the northwest of Greenland and in the east, with bears rarely venturing to the south.¹⁹⁷⁹ Polar bears are protected within Greenland but a small amount of hunting is allowed to provide food and clothing for indigenous people; jewellery and other items are carved from polar bear teeth but there is a ban on exporting these outside of the country.¹⁹⁸⁰

¹⁹⁷⁰ 'Højesteret Højesteret' <<http://www.hoejesteret.dk/hojesteret/Pages/default.aspx>> accessed 25 July 2019.

¹⁹⁷¹ *ibid.*

¹⁹⁷² *ibid.*

¹⁹⁷³ 'Kalaallit Nunaat High Arctic Tundra' (n 299).

¹⁹⁷⁴ *ibid.*

¹⁹⁷⁵ *ibid.*

¹⁹⁷⁶ Dahl (n 304).

¹⁹⁷⁷ Home Rule Order No 22 of 19 August 2002 on Payment Hunting and Fishing.

¹⁹⁷⁸ Chester (n 24) 90–91.

¹⁹⁷⁹ 'Animal Life in Greenland' (*Greenland Tourist Board*) <http://www.greenland-guide.gl/animal_life.htm> accessed 13 April 2019.

¹⁹⁸⁰ 'Isbjørn' (*Pinngortitaleriffik - Grønlands Naturinstitut*) <<http://www.natur.gl/pattedyr-og-fugle/havpattedyr/isbjoern/>> accessed 13 April 2019.

The seas around Greenland teem with marine life and it is estimated that there are at least two million seals as well as whales, narwhal and walrus which thrive in the icy waters.¹⁹⁸¹ Species of seal include harbour seal and grey seal as well as harp seals, hooded seals, bearded seals and ringed seals, many of which rely on the pack ice for resting and breeding.¹⁹⁸² Species of whale which are found off Greenland include the bowhead whale, humpback whale, beluga whale, fin whale and northern minke whale as well as small numbers of blue whales, the largest mammals on earth, sperm whales, the largest toothed mammals and sei whales.¹⁹⁸³ Narwhal, with the distinctive teeth are found near the edge of the ice in northern Greenland.¹⁹⁸⁴ Whales, seals, narwhal and walrus play an important role in traditional culture in Greenland, where many people are reliant on subsistence hunting to feed their families and because eating traditional food is an important cultural practice.¹⁹⁸⁵ While the meat of some marine mammals is available to purchase in Nuuk, the majority of hunting is done on a small scale basis for personal or community consumption.

Greenland, like much of the rest of the Arctic provides important breeding and nesting sites for many birds, especially sea birds.¹⁹⁸⁶ The remote and inaccessible cliffs around the island are safe places for seabirds to build colonies in which to lay eggs and raise their young before heading south for the winter.¹⁹⁸⁷ Large numbers of seabirds such as northern fulmars, Arctic terns, Brünnich's and common guillemots, eiders and king eiders and many types of gulls nest in Greenland in the summer.¹⁹⁸⁸ Other types of birds such as snowy owls, ptarmigan, snow bunting and white-tailed sea eagles can also be found in Greenland.¹⁹⁸⁹

Vegetation is reasonably limited in Greenland. The majority of the island is covered in the ice cap where nothing can grow at all and even along the coastline, plant life is sparse in

¹⁹⁸¹ 'Animal Life in Greenland' (n 1979).

¹⁹⁸² *ibid*; Chester (n 24) 98–104.

¹⁹⁸³ Chester (n 24) 106–119.

¹⁹⁸⁴ *ibid* 125.

¹⁹⁸⁵ Dahl (n 304).

¹⁹⁸⁶ 'Kalaallit Nunaat High Arctic Tundra' (n 299).

¹⁹⁸⁷ *ibid*.

¹⁹⁸⁸ *ibid*.

¹⁹⁸⁹ 'Greenland' (*Bird Life International Datazone*) <<http://datazone.birdlife.org/country/greenland>> accessed 13 April 2019.

the northern regions.¹⁹⁹⁰ The harsh climate, cold weather, dark winters and low rainfall make growing conditions difficult.¹⁹⁹¹ There is only one part of the country which has any trees, the Qinnua valley forest where birch and fir trees grow.¹⁹⁹² Beyond this, trees on Greenland are mostly dwarf varieties or completely non-existent.¹⁹⁹³ Where vegetation does exist, it is mostly heath, mosses, lichens and grassland although there are a number of small, well adapted high Arctic flowering plants such as ‘sulphur-coloured buttercup, alpine foxtail, and nodding lychnis’ which require such cold temperatures that they cannot survive further south.¹⁹⁹⁴

C.4. Species Protection

Greenland has a fairly sophisticated system of species protection as it has had responsibility for conservation and the protection of the environment since Home Rule was first introduced on 1 May 1979.¹⁹⁹⁵ The first act relating to species conservation in Greenland was passed by the new executive the following year to replace the power granted by the Danish government to the Minister for Greenland to make laws to protect the Greenlandic environment.¹⁹⁹⁶ As such, the Greenlandic government has had time to create a coherent structure of rules on species protection. Despite this, the system currently only covers mammals and birds, although authority has been given to Naalakkersuisut to expand the protection to other animals and to plants.¹⁹⁹⁷ In 2007, a Red List was published which identified the most vulnerable species, mostly of mammals and birds and all of these are now protected in some form by the rules on species protection.¹⁹⁹⁸ The Greenlandic system is made up of a framework act, Act No 29 of 18 December 2003 on Nature Protection, under which are a number of orders which provide for the protection of each individual

¹⁹⁹⁰ ‘Kalaallit Nunaat High Arctic Tundra’ (n 299).

¹⁹⁹¹ *ibid.*

¹⁹⁹² ‘Nanortalik, Town in South Greenland’ (*Visit Greenland*)

<<https://visitgreenland.com/destinations/nanortalik/>> accessed 13 April 2019.

¹⁹⁹³ ‘Kalaallit Nunaat High Arctic Tundra’ (n 299).

¹⁹⁹⁴ *ibid.*

¹⁹⁹⁵ Danish Act No 577 of 29 November 1978 on Greenland Home Rule s 4, Appendix 1.

¹⁹⁹⁶ Act on Nature Conservation in Greenland 1980; Danish Act No 520 of 1 October 1975 on Nature Conservation (Lovbekendtgørelse Nr 520 af 1 Oktober 1975 om Naturfredning).

¹⁹⁹⁷ Act on Nature Protection 2003 ss 5–10.

¹⁹⁹⁸ David Boertmann, *Grønlands Rødliste 2007* (Grønlands Hjemmestyre, Direktoratet for Miljø og Natur 2007) 10–11.

species.¹⁹⁹⁹ There is also the Act No 12 of 29 October 1999 on Taking and Hunting which regulates hunting for those species for which hunting is permitted.²⁰⁰⁰

C.4.1. Red List

Greenland's Red List provides information about the conservation status of the most significant species found on the island.²⁰⁰¹ The first Red List was published in 2007 and an updated version was published in 2018.²⁰⁰² The assessment for the most recent Red List covered 602 species, some of which are different populations of the same species, as conservation statuses of populations can differ dramatically across the island.²⁰⁰³ The overwhelming majority of the species included in the report are vascular plants (490 species and subspecies, of which 450 are flowering plants), followed by birds (66) and mammals (38).²⁰⁰⁴ There were also three freshwater fish and five butterflies assessed.²⁰⁰⁵ The assessment found that 22% of the species considered could be classed as extinct, critically endangered, endangered, vulnerable or near threatened, which are the categories used by the International Union for Conservation of Nature.²⁰⁰⁶ This is a large drop in proportion compared to the Red List published in 2007 but this list covered a much smaller number of species (only 115 species in total).²⁰⁰⁷ In Greenland the extinct or regionally extinct species are the East Greenland caribou, the last of which died in the late nineteenth century, the Barrows goldeneye bird and the fieldfare.²⁰⁰⁸ Although there were six critically endangered species in the 2007 report, all of which were marine mammals, all but one of the species had their threat level downgraded in the 2018 edition due to recovery of populations.²⁰⁰⁹ The only remaining critically endangered species is the harbour seal which was widely hunted prior to the establishment of its protected status in 2010.²⁰¹⁰

¹⁹⁹⁹ Act on Nature Protection 2003.

²⁰⁰⁰ Act on Taking and Hunting 1999.

²⁰⁰¹ Boertmann (n 1998); 'Greenland Red List - 2007' (*Aarhus Universitet - Nationalt Center for Miljø og Energi*) <http://dce.au.dk/udgivelser/udgivelser-fra-dmu/div/2008/abstracts/roedliste_gr_uk/> accessed 11 April 2019.

²⁰⁰² Boertmann (n 1998); 'Greenland Red List - 2007' (n 2001); Boertmann and Bay (n 371).

²⁰⁰³ Boertmann and Bay (n 371) ch 10.

²⁰⁰⁴ *ibid.*

²⁰⁰⁵ *ibid.*

²⁰⁰⁶ *ibid.*

²⁰⁰⁷ Boertmann (n 1998).

²⁰⁰⁸ *ibid* 10–11; 'Greenland Red List - 2007' (n 2001).

²⁰⁰⁹ Boertmann and Bay (n 371) ch 10.

²⁰¹⁰ *ibid.*

The endangered species of bird are the Greenland white-fronted goose which is no longer hunted but remains endangered because of the impact of the Canada goose and the common guillemot, which is hunted in Greenland despite its endangered status.²⁰¹¹ There are also three marine mammals which are considered to be endangered, the narwhal (East Greenland population), northern right whale and the sei whale.²⁰¹²

There are 17 animal species and 60 plant species which are considered to be vulnerable, the key one of which is the polar bear.²⁰¹³ There are also a number of other marine mammals such as the hooded seal, the West Greenland and North Water populations of walrus, the Spitsbergen population of bowhead whale and the beluga whale.²⁰¹⁴ Many of these mammals were previously classified as either endangered or critically endangered but their populations are recovering due to the conservation efforts put in place since the 2007 report.²⁰¹⁵ There are also small populations of wolf and wild reindeer which are listed as vulnerable as well as seven bird species including Brünnich's guillemot, ivory gull and black legged kittiwake.²⁰¹⁶ There are four mammals, nine birds and 31 plants which are listed as near threatened.²⁰¹⁷

The newly published list of threatened and endangered species in Greenland is considerably more complete than it was in 2007 although it still does not take into account insect species or many non-flowering plants.²⁰¹⁸ The 2018 edition of the Red List sees a considerable number of changes including many species which have moved categories and the inclusion of over 500 new species.²⁰¹⁹ This is to be expected given that the previous edition was drafted before the impact of climate change on sea ice and the Greenlandic ice cap was understood. What is slightly more surprising is the number of marine mammal species which have recovered sufficiently for their threat status to be downgraded, in some instances quite considerably (such as the bowhead whale and the beluga whale both downgraded from critically endangered to vulnerable).²⁰²⁰ Despite the Red List's

²⁰¹¹ *ibid.*

²⁰¹² *ibid.*

²⁰¹³ *ibid.*

²⁰¹⁴ *ibid.*

²⁰¹⁵ *ibid.*

²⁰¹⁶ *ibid.*

²⁰¹⁷ *ibid.*

²⁰¹⁸ Boertmann (n 1998); Boertmann and Bay (n 371) ch 10.

²⁰¹⁹ Boertmann and Bay (n 371) ch 10.

²⁰²⁰ Boertmann (n 1998); Boertmann and Bay (n 371) ch 10.

limitations, however, and its lack of legal authority, the data in it provides useful information about the levels of threat to Greenlandic biodiversity.

C.4.2. Act No 29 of 18 December 2003 on Nature Protection in Greenland

The Greenlandic Home Rule authorities were granted jurisdiction over matters relating to conservation and environmental protection under the Greenlandic Home Rule Act of 1978.²⁰²¹ Jurisdiction over these matters was maintained when Home Rule became Self Government in 2009 and, as environmental protection was one of the earliest areas for which Greenland became responsible, a coherent and structured species protection system is now in place throughout Greenland.²⁰²² The main act which deals with species protection is the Act on Nature Protection (No 29 of 18 December 2003) which replaced the earlier Act on Nature Conservation in Greenland (No 11 of 12 November 1980) in all aspects except for the National Park in the North and East of Greenland.²⁰²³ Unlike in the other Arctic countries, the Greenlandic Act on Nature Protection is only a framework act, giving the power to create rules for the purpose of species protection to Naalakkersuisut.²⁰²⁴ The detailed provisions for species protection are found in a number of Naalakkersuisut orders, with a separate order made for each species.²⁰²⁵

The stated purpose of the Act on Nature Protection 2003 is to contribute to the aim of ‘protecting Greenland’s nature’.²⁰²⁶ Nature in Greenland is to be protected in a way which is ‘ecologically sustainable’ and which takes into account the ‘precautionary principle’ as well as a respect for human life.²⁰²⁷ The protection should also aim to preserve both ‘animal and plant life’.²⁰²⁸ Alongside these broader aims, the act is also designed to ‘protect biodiversity, including genes, species, habitats and ecosystems’, as well as to ensure sustainable use of natural resources, maintaining the value of landscape, providing opportunities for people to use nature and implementing Greenland’s international obligations in area of nature protection.²⁰²⁹

²⁰²¹ Danish Act No 577 of 29 November 1978 on Greenland Home Rule, s 4, Schedule.

²⁰²² Danish Act No 473 of 12 June 2009 on Greenland Self-Government s 23(3).

²⁰²³ Act on Nature Protection 2003 s 64; Act on Nature Conservation in Greenland 1980 ss 15–16.

²⁰²⁴ Act on Nature Protection 2003 s 5.

²⁰²⁵ *ibid* 5, 7, 9.

²⁰²⁶ *ibid* 1.

²⁰²⁷ *ibid*.

²⁰²⁸ *ibid*.

²⁰²⁹ *ibid* 1(2).

The act applies within Greenland's land territory and the marine territory over which Greenland has jurisdiction over fishing, namely the exclusive economic zone.²⁰³⁰ Some parts of the act do not apply to the whole of Greenland but only to the 'urban and rural areas' which are the areas where people live, as opposed to the wilderness areas of the island.²⁰³¹ It applies to 'wild fauna' which it defines as 'mammals, birds and other animals living in the Greenlandic nature', with the exception being for fish and salt or fresh water invertebrates which are specifically excluded.²⁰³² The act also applies to 'wild plants' which includes 'aquatic plants'.²⁰³³

The act grants power to Naalakkersuisut to create rules for the protection of species.²⁰³⁴ There are three separate provisions under which these rules can be made.²⁰³⁵ Sections 5 and 6 cover mammals and birds, sections 7 and 8 cover other animals and sections 9 and 10 deal with plants.²⁰³⁶ The provisions are interesting because they allow for rules on the protection of species to be created for any species found in Greenland, without distinguishing between endangered or threatened species and non-endangered species.²⁰³⁷ Unlike in the USA or Canada, there is no requirement for there to be scientific evidence of a threat to a species for rules to be created to protect it in Greenland.²⁰³⁸ However, because the authority to create rules for the protection of species is not linked in any way to the threat to those species, there is nothing to require that endangered or threatened species be prioritised for protection.²⁰³⁹

Section 5 allows for the creation of rules to protection mammals and birds.²⁰⁴⁰ Naalakkersuisut is authorised to create a number of different types of rules, including ones which are aimed at preserving the species, any particular population or any part thereof.²⁰⁴¹

²⁰³⁰ *ibid* 2; Danish Act No 597 of 17 December 1976 on the Fishing Territory of the Kingdom of Denmark (Lov om Danmarks Riges Fiskeriterritorium).

²⁰³¹ Act on Nature Protection 2003 s 2.

²⁰³² *ibid* 3(1), (2).

²⁰³³ *ibid* 3(3).

²⁰³⁴ *ibid* 5–10.

²⁰³⁵ *ibid*.

²⁰³⁶ *ibid*.

²⁰³⁷ *ibid*.

²⁰³⁸ Endangered Species Act 1973; Species at Risk Act 2002.

²⁰³⁹ Act on Nature Protection 2003 ss 5–10.

²⁰⁴⁰ *ibid* 5.

²⁰⁴¹ *ibid* 5(1)(1).

They can also protect the food source of any species and prepare, restrict activities or access to particular areas and adopt a management plan for the protection of a mammal or bird.²⁰⁴² The protection of a species of mammal or bird need not be absolute; Naalakkersuisut may create rules which allow for, or restrict, the harvesting or hunting of that species.²⁰⁴³ Such rules may permit hunting but only at certain times, in certain places or for certain individuals within a particular species.²⁰⁴⁴ The rules may also introduce a quota for the maximum number of individuals which may be caught.²⁰⁴⁵ When it is considering setting out rules to protect and species of mammal or bird, Naalakkersuisut should consider what measures would best ensure that the species can breed successfully.²⁰⁴⁶ In particular, the aim should be for mammals and birds to be undisturbed during their respective breeding seasons.²⁰⁴⁷ Before reaching a decision on any rules, Naalakkersuisut should consult with the Harvesting Council, an advisory body which is part of the Greenlandic government with expertise in matters of harvesting and hunting.²⁰⁴⁸

While section 5 covers birds and mammals throughout the land and fishing territories of Greenland, section 7 deals with all other types of animals, such as insects and other types of invertebrates.²⁰⁴⁹ The act allows Naalakkersuisut to make rules for the protection of animals not covered under section 5 within the urban and rural areas of Greenland.²⁰⁵⁰ The rules can cover the preservation of any particular species, the population of a species, or any part of a population in Greenland.²⁰⁵¹ The protection of other animal species may extend to the prohibition of activities or access to certain defined areas or at certain times of the year.²⁰⁵² The rules may also prohibit the catching or collection of a species, or they may allow it but only using specified methods.²⁰⁵³ Where appropriate, Naalakkersuisut may adopt a management plan setting out the ways in which a species can be managed in

²⁰⁴² *ibid* 5(1)(6), (7)-(9).

²⁰⁴³ *ibid* 5(1)(2)-(5).

²⁰⁴⁴ *ibid*.

²⁰⁴⁵ *ibid* 5(1)(5).

²⁰⁴⁶ *ibid* 5(2).

²⁰⁴⁷ *ibid*.

²⁰⁴⁸ *ibid* 5(3); 'Greenland Harvesting Council'

<<https://naalakkersuisut.gl/da/Naalakkersuisut/Departementer/Fiskeri-Fangst-og-Landbrug/Fangst-og-jagtafdelingen/Fangstraadet>> accessed 25 March 2019.

²⁰⁴⁹ Act on Nature Protection 2003 ss 5, 7.

²⁰⁵⁰ *ibid* 2, 7.

²⁰⁵¹ *ibid* 7(1).

²⁰⁵² *ibid* 7(5), (6).

²⁰⁵³ *ibid* 7(2), (3).

order to ensure its protection.²⁰⁵⁴ A management plan for polar bears was due to be completed by 2017 but it does not appear to have been published yet.²⁰⁵⁵

In addition to setting out rules for mammals, birds and other animals, Naalakkersuisut has the right to establish rules for the protection of wild plant life.²⁰⁵⁶ This section applies throughout Greenland, including in its fishing territory.²⁰⁵⁷ The framework in the Act on Nature Protection gives Naalakkersuisut a wide range of options in the rules which it can create to protect wild plants.²⁰⁵⁸ Such rules can include anything which will assist with the preservation of any plant species, or the whole or part of a particular population of a species.²⁰⁵⁹ The rules may also prohibit the collection of any wild plants in specified areas or at particular times or may prohibit other activities, and even access to and traffic through, any defined areas either permanently or at certain times of the year.²⁰⁶⁰ Where Naalakkersuisut deems it necessary or desirable, they may adopt a management plan for any species of wild plant found in Greenland.²⁰⁶¹

For all three sets of provisions on the protection of species, Naalakkersuisut is authorised to permit exceptions to the rules.²⁰⁶² Derogations to any rule against harvesting, hunting or collecting of animal species may be allowed but only where the purpose of the taking of the species is to map the natural resources in Greenland or for some other scientific purpose.²⁰⁶³ Where a person, company or institution is granted the right to harvest, hunt, collect or use an animal species, Naalakkersuisut has the authority to require that any unused part of the species be handed over for scientific studies and that, where requested, information be provided for scientific purposes or, in the case of mammals and birds, for the management of hunting.²⁰⁶⁴ For wild plants, Naalakkersuisut may authorise the collection of a species but only for the purposes of scientific study.²⁰⁶⁵

²⁰⁵⁴ *ibid* 7(4).

²⁰⁵⁵ 'Greenland' (*Polar Bear Agreement*) <<https://polarbearagreement.org/polar-bear-management/national-management/greenland>> accessed 13 April 2019.

²⁰⁵⁶ Act on Nature Protection 2003 s 9.

²⁰⁵⁷ *ibid* 2, 9.

²⁰⁵⁸ *ibid* 9.

²⁰⁵⁹ *ibid* 9(1).

²⁰⁶⁰ *ibid* 9(2), (4), (5).

²⁰⁶¹ *ibid* 9(3).

²⁰⁶² *ibid* 6, 8, 10.

²⁰⁶³ *ibid* 6(1), 8.

²⁰⁶⁴ *ibid* 6(2), 8.

²⁰⁶⁵ *ibid* 10.

There are fourteen orders which provide for the protection of species in Greenland. These orders are all made by Naalakkersuisut (or its predecessor, the Landsstyre) under the authority of the Act on Nature Protection 2003 or the previous Act on Nature Conservation in Greenland 1980.²⁰⁶⁶ Each order protects a different species or group of species, and between them they ensure the protection of both terrestrial and marine mammals as well as birds found within Greenland or its fishing territory. While Naalakkersuisut is entitled to make rules to protect animals other than mammals, and plants, no orders protecting such species have yet been made. The orders protect six of the eight terrestrial Arctic species found within Greenland, namely musk ox, wolverine, Arctic hare, Arctic fox, wolf and wild reindeer with the ermine and the northern collared lemming being the only native species which are currently unprotected.²⁰⁶⁷ The levels of protection differ for each species. Wolverine and wolf are protected completely throughout Greenland, with a small exception for wolf near Ittoqqortoormiit.²⁰⁶⁸ For wolverine, the protection extends to taking, hunting and disturbing a wolverine and also to disturbing or damaging its breeding grounds.²⁰⁶⁹ For Arctic hare, reindeer, musk ox and Arctic fox, the species are protected, except in situations where hunting is authorised.²⁰⁷⁰ Beyond the limits on hunting found in each order, however, there are no other protections for these species and the term ‘protected’ is not defined, except in so far as it means that taking and hunting, in accordance with the Act on Taking and Hunting 1999, are not permitted.²⁰⁷¹

There is a huge abundance of marine mammals found off the coast of Greenland, including walrus, seals, whales, narwhal and polar bear.²⁰⁷² There are orders protecting each of these

²⁰⁶⁶ Act on Nature Protection 2003; Act on Nature Conservation in Greenland 1980.

²⁰⁶⁷ ‘Kalaallit Nunaat High Arctic Tundra’ (n 299); Self Government Order No 8 of 27 June 2013 on the Protection and Capture of Musk Oxen.

²⁰⁶⁸ Home Rule Order No 13 of 13 September 2004 on the Protection of Wolverine (Hjemmestyrets Bekendtgørelse Nr 13 af 13 September 2004 om Beskyttelse af Jærv); Home Rule Order No 9 of 5 May 1988 on the Conservation of Wolves in Greenland (Hjemmestyrets Bekendtgørelse Nr 9 af 5 Maj 1988 om Fredning af Ulve i Grønland).

²⁰⁶⁹ Home Rule Order No 13 of 13 September 2004 on the Protection of Wolverine ss 1, 3.

²⁰⁷⁰ Home Rule Order No 19 of 17 May 1989 on the Conservation of Arctic Hares in Greenland (Hjemmestyrets Bekendtgørelse Nr 19 af 17 Maj 1989 om Fredning af Harer i Grønland) ss 1, 2; Home Rule Order No 20 of 17 May 1989 on the Conservation of Arctic Foxes in Greenland ss 1, 2; Self Government Order No 8 of 27 June 2013 on the Protection and Capture of Musk Oxen ss 2, 3; Self Government Order No 7 of 27 June 2013 on the Protection and Capture of Wild Reindeer (Selvstyrets Bekendtgørelse No 7 af 27 Juni 2013 om Beskyttelse og Fangst af Vilde Rensdyr) ss 2, 3.

²⁰⁷¹ Act on Taking and Hunting 1999.

²⁰⁷² ‘Kalaallit Nunaat High Arctic Tundra’ (n 299).

species, some of which provide full protection and some of which protect the species while allowing taking and hunting in particular circumstances.²⁰⁷³ Consumption of marine mammal meat is traditional in indigenous Greenlandic culture and so most of the marine species can be hunted to some extent.²⁰⁷⁴ The only fully protected species are the harbour seal, grey seal, sperm whale and species of baleen whale that are larger than northern minke whales but are not listed in the relevant order.²⁰⁷⁵ Species of whale which fall into the final category in this list include blue whale and sei whale.²⁰⁷⁶ For other species, while the entire population is not protected, certain parts of the populations are protected. For example, pups of bearded, ringed and harp seals are protected while they still have their lanugo hair and juvenile polar bears still dependent on their mother may not be taken or hunted.²⁰⁷⁷ Similarly, female seals and polar bears which are with their young are protected; all juvenile walruses and all adult female walruses are protected except in the very far north.²⁰⁷⁸ In a similar way to the terrestrial mammals, in most of the orders, the species are merely described as ‘protected’ with no further definition or explanation. The protection certainly extends to a prohibition on taking and hunting but it is not clear that the protection, as stated, extends as far as preventing harassing, chasing, disturbing or interfering with a species or with its habitat. The only exception to this is the polar bear, for which is unlawful to interfere with a polar bear which is denning, including excavating the den.²⁰⁷⁹ It is also unlawful to ‘lure, seek, pursue or otherwise disturb polar bears’, unless such behaviour is connected with lawful hunting or with scaring away a polar bear threatening human life.²⁰⁸⁰

²⁰⁷³ Self Government Order No 3 of 27 January 2017 on the Protection and Capture of White Whales (Beluga Whales) and Narwhals (Selvstyrets Bekendtgørelse No 3 af 27 Januar 2017 om Beskyttelse og Fangst af Hvid- og Narhvaler); Self Government Order No 9 of 6 December 2018 on the Protection and Capture of Large Whales (Selvstyrets Bekendtgørelse Nr 9 af 6 December 2018 om Beskyttelse og Fangst af Store Hvaler); Self Government Order No 3 of 14 September 2018 on Catching and Protecting Polar Bears; Self Government Order No 16 of 12 November 2010 on the Protection and Capture of Seals (Selvstyrets Bekendtgørelse No 16 af 12 November 2010 om Beskyttelse og Fangst af Sæler); Home Rule Order No 20 of 27 October 2006 on the Protection and Catch of Walrus (Hjemmestyrets Bekendtgørelse Nr 20 af 27 Oktober 2006 om Beskyttelse og Fangst af Hvalros).

²⁰⁷⁴ ‘Greenland’ (*International Whaling Commission*) <<https://iwc.int/greenland>> accessed 11 April 2019.

²⁰⁷⁵ Self Government Order No 16 of 12 November 2010 on the Protection and Capture of Seals ss 3(4), (5); Self Government Order No 9 of 6 December 2018 on the Protection and Capture of Large Whales ss 1, 2.

²⁰⁷⁶ Chester (n 24) 109–112.

²⁰⁷⁷ Self Government Order No 16 of 12 November 2010 on the Protection and Capture of Seals s 3(3); Self Government Order No 3 of 14 September 2018 on Catching and Protecting Polar Bears s 3(3).

²⁰⁷⁸ Self Government Order No 16 of 12 November 2010 on the Protection and Capture of Seals s 3(2); Self Government Order No 3 of 14 September 2018 on Catching and Protecting Polar Bears s 3(3); Home Rule Order No 20 of 27 October 2006 on the Protection and Catch of Walrus s 2(2).

²⁰⁷⁹ Self Government Order No 3 of 14 September 2018 on Catching and Protecting Polar Bears s 3(4).

²⁰⁸⁰ *ibid* 4.

The third, and final, group of animals protected by orders made under the Act on Nature Protection 2003 are birds.²⁰⁸¹ All bird species within the land and fishing territory of Greenland are protected, unless a person is authorised to hunt a particular species, or to collect its eggs.²⁰⁸² The species which may be hunted are listed in appendix 1 to the Naalakkersuisut Order No 1 of 5 January 2017 on the Protection and Capture of Birds, and these are specifically excluded from the full protection granted to all other species of bird.²⁰⁸³ Like with terrestrial and marine mammals, the order does not specify what the term ‘protected’ means but unlike other in the other orders, there are additional protections listed for birds. These include a prohibition, during the summer breeding season, on shooting at, disturbing or sailing too fast near certain bird colonies such as those of king eiders, Atlantic puffins and Arctic terns.²⁰⁸⁴ Beyond the bird colonies, there are a number of established ‘bird protection areas’.²⁰⁸⁵ The 40 bird protection areas, 29 of which are located in the Arctic are listed in appendices 7 and 8 to the order and include Apparsuit, an island in Baffin Bay near the north-western community of Qaanaaq which is the nesting site of 26,000 pairs of Brünnich’s guillemot, and Kangikajit or Kap Brewster near Ittoqqotoormiit which is an important breeding site for little auks.²⁰⁸⁶ Even where there are no specific protections in place, either due to the protection of a bird colony or because the area is designated as a bird protection area, the order still provides that the nest of any bird, its eggs and the juvenile birds, may not be damaged or disturbed in any way.²⁰⁸⁷ The exception to this is where hunting of juveniles or the collection of eggs is otherwise permitted.²⁰⁸⁸

As well as the framework for the protection of species, the Act on Nature Conservation forbids the release of species which do not naturally occur in Greenland, by way of a

²⁰⁸¹ Act on Nature Protection 2003.

²⁰⁸² Self Government Order No 1 of 5 January 2017 on the Protection and Capture of Birds ss 1, 2, 6, 11.

²⁰⁸³ *ibid* 6.

²⁰⁸⁴ *ibid* 12.

²⁰⁸⁵ *ibid* 13.

²⁰⁸⁶ *ibid*, Appendices 7 and 8; Knud Falk and others, ‘Foraging Behaviour of Thick-Billed Murres Breeding in Different Sectors of the North Water Polynya: An Inter-Colony Comparison’ (2002) 231 *Marine Ecology-progress Series - MAR ECOL-PROGR SER* 293, 294; ‘Kap Brewster’ (*Bird Life International Datazone*) <[http://datazone.birdlife.org/site/factsheet/kap-brewster-and-volquart-boons-coast-iba-greenland-\(to-denmark\)](http://datazone.birdlife.org/site/factsheet/kap-brewster-and-volquart-boons-coast-iba-greenland-(to-denmark))> accessed 12 April 2019.

²⁰⁸⁷ Self Government Order No 1 of 5 January 2017 on the Protection and Capture of Birds s 14(1).

²⁰⁸⁸ *ibid* 14(2).

prohibition against the exposure of such species to, or the breeding of such species in, the Greenlandic natural environment.²⁰⁸⁹ This prohibition also extends to individual animals of a species which is found naturally in Greenland but which has been imported from abroad and to the relocation of wild animals within Greenland.²⁰⁹⁰ In both situations, exemptions can be permitted by Naalakkersuisut where an environmental impact assessment has been carried out and appropriate conditions to ensure that the environment is protected are established.²⁰⁹¹ For wild plants, the act does not specify any rules regarding the introduction or relocation of wild plant species but authorises Naalakkersuisut to create any rules required.²⁰⁹²

C.4.3. Act No 12 of 29 October 1999 on Taking and Hunting

While the Act on Nature Protection allows Naalakkersuisut to set out rules on the protection and the taking of individual species, the Act on Harvesting and Hunting (No 12 of 29 October 1999) provides further rules, and an additional framework, for the acts of harvesting and hunting.²⁰⁹³ The act applies to the Greenlandic territory, both on land and in its fishing territory.²⁰⁹⁴ It covers the harvesting of marine species but fishing itself is regulated separately.²⁰⁹⁵

The stated purpose of the act is to ensure that natural resources are used in a way which is appropriate and ‘biologically sound’, with the aim being to conserve species and allow for their reproduction.²⁰⁹⁶ In reaching decisions on the exploitation of natural resources, expert evidence on biology, economics, employment within the fishing industry and the needs of recreational hunters should all be taken into account.²⁰⁹⁷ The knowledge of local resource users should also be considered, in recognition that they may have insight, information and traditional knowledge that can assist with the administration of hunting.²⁰⁹⁸

²⁰⁸⁹ Act on Nature Protection 2003 s 33(1).

²⁰⁹⁰ *ibid* 33(2), (5).

²⁰⁹¹ *ibid* 33(1), (2).

²⁰⁹² *ibid* 33(6).

²⁰⁹³ Act on Nature Protection 2003; Act on Taking and Hunting 1999.

²⁰⁹⁴ Act on Taking and Hunting 1999 s 1.

²⁰⁹⁵ Landsting Act No 18 of 31 October 1996 on Fishing (Landstingslov Nr 18 af 31 Oktober 1996 om Fiskeri).

²⁰⁹⁶ Act on Taking and Hunting 1999 s 2.

²⁰⁹⁷ *ibid* 2(2).

²⁰⁹⁸ *ibid* 2(3).

It is unlawful to hunt in Greenland without authorisation.²⁰⁹⁹ Authorisation comes in one of three forms, a professional hunting licence, a recreational hunting licence or payment hunting.²¹⁰⁰ Professional hunting licences are available to people who have a strong affiliation with Greenland, such as owning or renting property, have been listed in the Greenlandic population register for at least two years and pay their taxes in Greenland.²¹⁰¹ Professional hunting licences can only be issued to those who make at least 50% of their gross annual income from hunting, harvesting or fishing, although Naalakkersuisut can make exceptions to this rule, and to the rules on connection with Greenland when a person has, for example, had to leave Greenland for education or where they have had no previous occupation and wish to take up commercial hunting.²¹⁰² Leisure or recreational hunting licences can be issued to anyone who has been registered in the Greenlandic population register for at least two years, or is currently registered and has previously been registered for two out of the last ten years.²¹⁰³ This is a lower standard of proof of a person's connection to Greenland than for professional licences but still requires a person to demonstrate that they have a genuine connection to Greenland. Applications for hunting licences for mammals and birds, both professional and recreational, are made annually to the person's local municipality and a fee of 250 Danish krone (£29) is payable.²¹⁰⁴ A person holding a hunting licence is allowed to hunt species for which hunting is permitted by law, on condition that an annual return is made reporting on the number of animals harvested.²¹⁰⁵

Where a person does not have the right to apply for a professional or recreational hunting licence, they may be authorised to hunt on a payment system.²¹⁰⁶ The Act on Taking and

²⁰⁹⁹ *ibid* 4.

²¹⁰⁰ *ibid* 4, 7.

²¹⁰¹ *ibid* 4.

²¹⁰² *ibid*; Landsting Act No 1 of 16 May 2008 on Amending the Act on Hunting and Fishing (Change in Gross Income Basis, Delegation of Competence to Municipalities) Landstingslov Nr 1 af 16 Maj 2008 om Ændring af Landstingslov om Fangst og Jagt (Ændring af Bruttoindkomstgrundlaget, Delegation af Kompetence til Kommunerne) ss 1, 2.

²¹⁰³ Act on Taking and Hunting 1999 s 5; Landsting Act of No 11 of 12 November 2001 on Amending the Act on Hunting and Fishing (Landstingslov Nr 11 af 12 November 2001 om Ændring af Landstingslov om Fangst og Jagt) s 3.

²¹⁰⁴ Act on Taking and Hunting 1999; Self Government Order No 13 of 30 December 2014 on Professional Hunting Certificates ss 1, 2(2), 4; Self Government Order No 14 of 30 December 2014 on Leisure Hunting Certificates (Selvstyrets Bekendtgørelse Nr 14 af 30 December 2014 om Fritidsjagtbeviser) ss 1, 2(2), 5.

²¹⁰⁵ Self Government Order No 13 of 30 December 2014 on Professional Hunting Certificates ss 3(1), 8; Self Government Order No 14 of 30 December 2014 on Leisure Hunting Certificates ss 4, 8.

²¹⁰⁶ Act on Taking and Hunting 1999 s 7; Home Rule Order No 22 of 19 August 2002 on Payment Hunting and Fishing.

Hunting 1999 permits Naalakkersuisut to issue rules on payment hunting.²¹⁰⁷ The current rules can be found in Executive Order No 22 of 19 August 2002 on Payment Hunting and Fishing, and allow for payment hunting for musk oxen, reindeer and ‘lesser game’ which is defined as birds, seals and small land mammals (Arctic hare and Arctic fox).²¹⁰⁸ For musk oxen and reindeer, an annual quota for payment hunting is carved out of the general quota for each of the species, which is distributed among those who have obtained a payment hunting permit.²¹⁰⁹ The permits are granted to qualified outfitters who then arrange hunting trips for tourists and visitors.²¹¹⁰

Like with the other Arctic nations, Greenland has rules on the conduct of hunting. Naalakkersuisut is authorised to set out rules and regulations on the hunting, including restricting areas where hunting is allowed, imposing quotas on individual species, limiting the time of year during which particular species may be hunted, enforcing reporting requirements and specifying any other restrictions and rules on the conduct of hunting.²¹¹¹ Rather than having a standard set of rules for all types of hunting, individual sets of rules for each species are contained in the orders drafted for each individual species under the Act on Nature Protection 2003 and the Act on Taking and Hunting 1999.²¹¹²

While there are a small number of completely protected species in Greenland, for most species some hunting is allowed. There are three main types of restrictions which are included in the individual species orders, the type of hunting licence required, quotas and time limits on hunting. For some species, the ice seals, Arctic hare, Arctic fox, reindeer and musk ox, hunting may take place by those residents of Greenland who hold either a professional hunting licence or a leisure hunting licence.²¹¹³ For other species, namely polar bear, walrus, beluga whale, narwhal, northern minke whale, fin whale, bowhead

²¹⁰⁷ Act on Taking and Hunting 1999 s 7(2); Act Amending the Act on Hunting and Fishing 2001 s 4.

²¹⁰⁸ Home Rule Order No 22 of 19 August 2002 on Payment Hunting and Fishing ss 6–14, 15–19; ‘Payment Hunt for Tourists’ (n 475).

²¹⁰⁹ Home Rule Order No 22 of 19 August 2002 on Payment Hunting and Fishing s 6.

²¹¹⁰ *ibid* 8, 16.

²¹¹¹ Act on Taking and Hunting 1999 s 8.

²¹¹² Act on Nature Protection 2003; Act on Taking and Hunting 1999.

²¹¹³ Self Government Order No 16 of 12 November 2010 on the Protection and Capture of Seals s 2; Home Rule Order No 19 of 17 May 1989 on the Conservation of Arctic Hares in Greenland s 1; Home Rule Order No 20 of 17 May 1989 on the Conservation of Arctic Foxes in Greenland 1; Self Government Order No 7 of 27 June 2013 on the Protection and Capture of Wild Reindeer s 8; Self Government Order No 8 of 27 June 2013 on the Protection and Capture of Musk Oxen s 8.

whale and humpback whale, only full time hunters with professional hunting licences are eligible to engage in hunting or taking.²¹¹⁴ There is one exception which is when a beluga whale or narwhal has become stuck on the ice and cannot escape alive, known as *sassat* from the Greenlandic word *suagssat*.²¹¹⁵ In such situations, as confirmed by the Ministry of Fishing, Hunting and Agriculture, both professional and leisure hunters are allowed to take part in the hunt.²¹¹⁶

As well as the split between species which can be hunted with different types of hunting licence, there is a split between the species for which there is a hunting quota and those for which there is no quota. There is no quota for the hunting of ice seals (although Naalakkersuisut is authorised to impose one if it so desires), Arctic hare or Arctic fox and these can be freely hunted by those entitled to do so.²¹¹⁷ There are, however, quotas for all of the other species for which hunting is allowed such as walrus, whales and polar bear.²¹¹⁸ Quotas are established in order to ensure that the populations of the species remain sustainable for future generations.²¹¹⁹ Each quota is set annually by the Ministry of Fisheries, Hunting and Agriculture following consideration of any relevant international agreements, biological data relating to the species and the knowledge of traditional hunters and following consultation with the Hunting Council which is a body set up to advise Naalakkersuisut.²¹²⁰ Quotas range quite dramatically depending on the species, with, for example, a quota of only two bowhead whales per year, to be caught in West Greenland, ideally within Disko Bay, up to the much large quotas of 1,000 reindeer, over 985 musk

²¹¹⁴ Self Government Order No 3 of 14 September 2018 on Catching and Protecting Polar Bears ss 8–10; Home Rule Order No 20 of 27 October 2006 on the Protection and Catch of Walrus s 6; Self Government Order No 3 of 27 January 2017 on the Protection and Capture of White Whales (Beluga Whales) and Narwhals ss 7–8; Self Government Order No 9 of 6 December 2018 on the Protection and Capture of Large Whales s 5.

²¹¹⁵ Self Government Order No 3 of 27 January 2017 on the Protection and Capture of White Whales (Beluga Whales) and Narwhals ss 2(2), 10.

²¹¹⁶ *ibid.*

²¹¹⁷ Self Government Order No 16 of 12 November 2010 on the Protection and Capture of Seals s 5; Home Rule Order No 19 of 17 May 1989 on the Conservation of Arctic Hares in Greenland; Home Rule Order No 20 of 17 May 1989 on the Conservation of Arctic Foxes in Greenland.

²¹¹⁸ '2018 Kvoter' (n 480).

²¹¹⁹ 'Kvoter Og Andre Begrænsninger' (*Naalakkersuisut*)

<<https://naalakkersuisut.gl/da/Naalakkersuisut/Departementer/Fiskeri-Fangst-og-Landbrug/Fangst-og-jagtafdelingen/Kvoter-og-andre-begraensninger>> accessed 12 April 2019.

²¹²⁰ *ibid.*; 'Fangstrådet - Hunting Council' (*Naalakkersuisut*)

<<https://naalakkersuisut.gl/da/Naalakkersuisut/Departementer/Fiskeri-Fangst-og-Landbrug/Fangst-og-jagtafdelingen/Fangstraadet>> accessed 12 April 2019.

oxen, 490 narwhal, 340 beluga whales and 156 polar bears.²¹²¹ Many of the quotas are spread across Greenland with different municipalities receiving specific quotas to distribute in the form of licences, each of which usually entitles the hunter to capture one animal.²¹²² Where the quota is not fulfilled, particularly for the species of whales where hunting is strictly limited, unused licences may be redistributed to other hunters and unused municipal allowances may be transferred to other municipalities towards the end of the year.²¹²³

There are also limits on the seasons during which animals may be hunted. The species of whale and seal may be hunted all year round but most other species have set hunting seasons.²¹²⁴ For polar bears, in most of the country the hunting season is 1 July to 1 August, except in Ittoqqortoormiit and Tasiilaq, where the hunting season lasts from 1 August to 1 September.²¹²⁵ For Arctic fox the hunting season is 16 September to 14 May and for Arctic hare the season is 1 August to 30 April and for walrus, a complex system of dates applies depending on in which part of the country the hunting is taking place.²¹²⁶ In the case of reindeer and muskox, Naalakkersuisut is authorised to set the hunting season between specified dates.²¹²⁷ There are a number of other rules regarding hunting and taking in Greenland, such as a prohibition on the use of self-shooting devices or poison during the hunting of polar bears, the compulsory use of harpoons for certain whale species and the

²¹²¹ 'Large Whale Hunting Quota'

<https://naalakkersuisut.gl/~media/Nanoq/Files/Attached%20Files/Fiskeri_Fangst_Landbrug/DK/2018/Kvoter_PRM%20store%20hvaler%202018_DK.pdf> accessed 12 April 2019; 'Reindeer Hunting Quota'

<https://naalakkersuisut.gl/~media/Nanoq/Files/Attached%20Files/Fiskeri_Fangst_Landbrug/DK/2018/Kvoter_Fangstperiode-%20og%20kvoter_vinter%202018_DK.pdf> accessed 12 April 2019; 'Reindeer and Musk Ox Hunting Quota'

<https://naalakkersuisut.gl/~media/Nanoq/Files/Attached%20Files/Fiskeri_Fangst_Landbrug/DK/2017/Rensdyr%20og%20Moskusokser%20Efteraar%202017.pdf> accessed 12 April 2019; 'Beluga Whale and Narwhal Hunting Quota'

<https://naalakkersuisut.gl/~media/Nanoq/Files/Attached%20Files/Fiskeri_Fangst_Landbrug/DK/2018/Kvoter_PRM%202018%20kvoter%20hvid-%20og%20narhvaler_DK.pdf> accessed 12 April 2019; 'Polar Bear Hunting Quota' (n 411).

²¹²² 'Kvoter Og Andre Begrænsninger' (n 2119).

²¹²³ Self Government Order No 9 of 6 December 2018 on the Protection and Capture of Large Whales ss 8, 9.

²¹²⁴ *ibid* 5(7); Self Government Order No 16 of 12 November 2010 on the Protection and Capture of Seals s 5(4); Self Government Order No 3 of 27 January 2017 on the Protection and Capture of White Whales (Beluga Whales) and Narwhals s 6(5).

²¹²⁵ Self Government Order No 3 of 14 September 2018 on Catching and Protecting Polar Bears s 3(2).

²¹²⁶ Home Rule Order No 20 of 17 May 1989 on the Conservation of Arctic Foxes in Greenland s 2; Home Rule Order No 19 of 17 May 1989 on the Conservation of Arctic Hares in Greenland s 2; Home Rule Order No 20 of 27 October 2006 on the Protection and Catch of Walrus s 3(3).

²¹²⁷ Self Government Order No 7 of 27 June 2013 on the Protection and Capture of Wild Reindeer s 4; Self Government Order No 8 of 27 June 2013 on the Protection and Capture of Musk Oxen s 4.

limitations on the nets which can be used to hunt for seals, narwhal and beluga whales, but the precise details are beyond the scope of this chapter.²¹²⁸ There are reporting requirements for all animals except Arctic fox and Arctic hare. For polar bear, whales, narwhal and walrus, the harvesting of an animal must be reported as soon as possible and for musk ox, reindeer and seals the reporting must take place either at the end of the hunting or the end of the year.²¹²⁹

There is a slightly different system for the hunting of birds. Most birds are completely protected but for 16 species of bird, listed in appendix 1 to Executive Order No 1 of 5 January 2017, hunting is allowed, with no quotas between the dates set out in section 10 of the order.²¹³⁰ For example, hunting of northern fulmars is allowed between 1 September and 31 October and the hunting of rock ptarmigan is permitted from 1 September until 30 April.²¹³¹ For five other species, namely common eider, king eider, common guillemot, Brünnich's guillemot and black legged kittiwake, more complex arrangements apply.²¹³² Different hunting seasons apply in each of the four zones of Greenland (far northwest, central northwest (70-74°N), southwest and east (outside the National Park) and these can be quite different.²¹³³ For example, for guillemots, hunting is permitted in the far northwest from 15 October until 15 June but is only allowed from 1 November to 15 December in the southwest.²¹³⁴ For each species, there is a set daily limit which is the maximum number of birds which a hunter may take on any day. The daily limits range from 40 birds per day

²¹²⁸ Self Government Order No 3 of 14 September 2018 on Catching and Protecting Polar Bears s 14(2); Self Government Order No 9 of 6 December 2018 on the Protection and Capture of Large Whales ss 12, 16, 19, 22; Self Government Order No 16 of 12 November 2010 on the Protection and Capture of Seals; Self Government Order No 3 of 27 January 2017 on the Protection and Capture of White Whales (Beluga Whales) and Narwhals s 12.

²¹²⁹ Self Government Order No 3 of 14 September 2018 on Catching and Protecting Polar Bears s 16; Self Government Order No 12 of 16 July 2010 on the Reporting of Catch and Shooting of Large Whales (Selvstyrets Bekendtgørelse No 12 af 16 Juli 2010 om Rapportering ved Fangst og Anskydning af Store Hvaler) s 1; Home Rule Order No 20 of 27 October 2006 on the Protection and Catch of Walrus s 11; Self Government Order No 8 of 27 June 2013 on the Protection and Capture of Musk Oxen s 20; Self Government Order No 7 of 27 June 2013 on the Protection and Capture of Wild Reindeer s 19; Self Government Order No 16 of 12 November 2010 on the Protection and Capture of Seals s 8.

²¹³⁰ Self Government Order No 1 of 5 January 2017 on the Protection and Capture of Birds s 10, Appendix 1.

²¹³¹ *ibid.*

²¹³² *ibid* 7–9.

²¹³³ *ibid* 4, 7–9, Appendices 2-6.

²¹³⁴ *ibid* 8(2).

for professional hunters seeking eider and king eider to 3 birds a day for hunters with leisure hunting certificates taking guillemots.²¹³⁵

Egg collection is only permitted for four species and must be conducted without any recourse to ropes, ladders or any other climbing equipment.²¹³⁶ Eggs of the northern fulmar, Iceland gull, glaucous gull and great black-backed gull may be collected by those with professional or leisure hunting certificates between 1 January and 15 June each year.²¹³⁷ The eggs of little auks may be collected year round in the far northwest and in east Greenland.²¹³⁸

Breaches of the Act on Taking and Hunting 1999, any regulation made under the act or the terms of any permit issued under the act are punishable with a fine.²¹³⁹ The animal hunted in violation of the act, regulation or permit, or a vessel used for such a violation may be subject to confiscation under the terms of the Greenland Criminal Code.²¹⁴⁰ A person who has intentionally or repeatedly committed ‘grossly negligent violations’ of the rules, or who has internationally or repeatedly caused damage another person and there is evidence that they will not conduct themselves in a proper manner when hunting in the future, the court may order that that person’s hunting licence should be withdrawn for a period of between one and five years.²¹⁴¹

C.5. Habitat Protection

While the majority of the Greenlandic environment is unspoiled wilderness, there are some areas which enjoy a heightened level of protection. The largest, and most important, of these is the enormous national park in the north and east of Greenland.²¹⁴² There are also a number of smaller nature reserves and other protected areas, some of which are located

²¹³⁵ *ibid* 7–9.

²¹³⁶ *ibid* 11.

²¹³⁷ *ibid*.

²¹³⁸ *ibid* 7, Appendices 2, 3, 6.

²¹³⁹ Act on Taking and Hunting 1999 s 17.

²¹⁴⁰ *ibid* 18, 19–20; Greenland Criminal Code 1954.

²¹⁴¹ Act on Taking and Hunting 1999 s 17a; Act Amending the Act on Hunting and Fishing 2001 s 5.

²¹⁴² Act on Nature Conservation in Greenland 1980 s 15; Act on the Amendment of the Act on Nature Conservation in Greenland 1988 s 1.

north of the Arctic Circle.²¹⁴³ Greenland, through Denmark, is a signatory to the Ramsar Convention so there are also some protected wetland areas in the Greenlandic Arctic.²¹⁴⁴ Given the remote locations of most of the protected areas in Greenland, access is usually fairly limited to begin with, certainly in comparison to more populous areas such as in Finland or mainland Norway. It is therefore possible to allow a small amount of access and even a small amount of traditional hunting by indigenous people within the protected areas without compromising the overall conservation aims.

C.5.1. North and East Greenland National Park (Kalaallit Nunaanni Nuna Eqqissisimatitaaq)

Greenland has a single national park, the Kalaallit Nunaanni Nuna Eqqissisimatitaaq or North and East Greenland National Park. It is, however, the largest national park, and the largest terrestrial protected area, in the world, covering an area which measures over 972,000km².²¹⁴⁵ The national park was established in 1974 and its boundaries were extended to their current position in 1988.²¹⁴⁶ It is located in the northeast of the island and covers an area over one quarter of the total area of Greenland. Situated entirely within the Arctic, the national park also includes the Greenlandic territorial waters off the coast of the onshore areas of the park.²¹⁴⁷ The majority of the park is formed from part of the Greenlandic ice cap, where almost nothing thrives, and most of the ground in the park which is not covered by the icecap is Alpine mountain ranges or polar desert, both characterised by permafrost.²¹⁴⁸ Along the 18,000km of coastline, the landscape becomes a series of fjords, and glaciers meeting the sea.²¹⁴⁹ The park is home to a wide variety of animals including forty percent of the world's population of muskox, as well as wild

²¹⁴³ 'Protected Areas' (*Naalakkersuisut*)

<<https://naalakkersuisut.gl/en/Naalakkersuisut/Departments/Natur-Miljoe/Natur-og-Klimaafdelingen/Natur/Fredede-landomraader>> accessed 31 March 2019.

²¹⁴⁴ Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat (adopted at Ramsar, Iran on 2 February 1971, entered into force 21 December 1975); 'Greenland' (*Ramsar Sites Information Service*, 2019) <[https://rsis.ramsar.org/ris-search/?f\[0\]=regionCountry_en_ss%3ADenmark](https://rsis.ramsar.org/ris-search/?f[0]=regionCountry_en_ss%3ADenmark)> accessed 10 April 2019.

²¹⁴⁵ 'The National Park' (*Visit Greenland*) <<https://visitgreenland.com/the-national-park/>> accessed 28 March 2019.

²¹⁴⁶ Danish Act No 266 of 22 May 1974 on Conservation for Greenland (Lov Nr 266 af 22 Maj 1974 om Fredning for Grønland); Act on the Amendment of the Act on Nature Conservation in Greenland 1988.

²¹⁴⁷ Act on Nature Conservation in Greenland 1980 s 15; Act on the Amendment of the Act on Nature Conservation in Greenland 1988 s 1.

²¹⁴⁸ 'North-East Greenland' (*UNESCO*) <<http://www.unesco.org/new/en/natural-sciences/environment/ecological-sciences/biosphere-reserves/europe-north-america/denmark/north-east-greenland/>> accessed 8 April 2019.

²¹⁴⁹ *ibid.*

reindeer, polar bear, walrus, bearded seal, harp seal, ringed seal and narwhal.²¹⁵⁰ Birds which breed in the national park during the short, intense summer include snowy owl, gyrfalcon, ptarmigan, pink footed goose and king eider.²¹⁵¹ There is fairly little vegetation, given that almost all of the land is either covered in glacier or is high Arctic tundra; the main vegetation is comprised of ‘dwarf shrub heaths’, grasslands, mosses and lichens.²¹⁵²

The national park was established for the purpose of ‘preserving the area’s natural state’.²¹⁵³ Alongside this are the further aims of making sure that access to the park is possible, where appropriate for the general public and those seeking to undertake research.²¹⁵⁴ Although public access is desirable, it is only permitted where it can be done while ensuring that the national park is protected. The level of protection required is high; an Executive Order issued by the Home Rule Government in 1992 stated that the ‘greatest possible protection of the landscape, plant life, wildlife, ancient monuments and other cultural life should be sought’.²¹⁵⁵ To this end, only residents of the communities of Qaanaaq (formerly Thule) and Ittoqqortoormiit located just outside the park, who have a permanent connection to Greenland, and those stationed at one of the bases in the national park are entitled to enter it; everyone else must apply for, and receive, a permit before accessing the park.²¹⁵⁶ Generally hunting is prohibited within the park but commercial hunters, primarily whalers and sealers, living in Ittoqqortoormiit and who are hunting in a traditional manner (such as hunting on ice or at sea with dogs sleds, kayaks or boats) are allowed to conduct hunting trips into the park.²¹⁵⁷ While such people have the right to hunt in the park, they are not allowed to hunt muskoxen in the park, unless a musk ox is required to feed sled dogs, in which case a single male musk ox may be taken.²¹⁵⁸ Anyone else who wishes to enter to park is required to obtain a permit from Naalakkersuisut.²¹⁵⁹

²¹⁵⁰ ‘Kalaallit Nunaat High Arctic Tundra’ (n 299).

²¹⁵¹ *ibid.*

²¹⁵² *ibid.*

²¹⁵³ Act on Nature Conservation in Greenland 1980 s 15; Act on the Amendment of the Act on Nature Conservation in Greenland 1988 s 1.

²¹⁵⁴ Home Rule Order No 7 of 17 June 1992 on the National Park in North and East Greenland s 1.

²¹⁵⁵ *ibid* 1(1).

²¹⁵⁶ *ibid* 21.

²¹⁵⁷ *ibid* 2(1), 22.

²¹⁵⁸ *ibid* 22(1).

²¹⁵⁹ *ibid* 23.

Species within the National Park are heavily protected. Apart from the exception for local professional hunters, and a small exception for those stationed within the National Park allowing hunting for seals, Arctic hare and ptarmigan, hunting and trapping are prohibited within the park, and permission must be sought even to be in possession of a weapon within the park.²¹⁶⁰ It is unlawful to disturb any mammal or bird within the park, or to interfere with their nests or breeding sites; the removal of bird eggs is also prohibited.²¹⁶¹ It is also unlawful to camp near a site which is important to a bird or mammal for breeding, feeding, migrating or resting.²¹⁶² For animals such as insects and other invertebrates, and for plants and berries, collection is allowed as long as the purpose for collection is not commercial sale.²¹⁶³ Plants with their roots still attached may not be taken.²¹⁶⁴ Breaches of the act are punishable with a fine.²¹⁶⁵

C.5.2. Other Protected Areas

As well as the national park, there eleven other, much smaller, protected areas within Greenland, some designated as nature reserves and others as merely protected areas.²¹⁶⁶ The Act No 29 of 18 December 2003 on Nature Protection in Greenland authorises Naalakkersuisut to create protected areas in two main ways, under section 5 and under sections 11 to 18 of the act.²¹⁶⁷ The first type of protected areas are those areas created under section 5 of the act, which allows Naalakkersuisut to create rules for the protection of species, populations or parts of populations and to regulate hunting, access and activities in defined areas or for defined periods of time.²¹⁶⁸ There are five areas protected under the authority of this section, but only one of them, the Kitsissunnguit islands and an areas of surrounding sea, is located in the Arctic.²¹⁶⁹ The Kitsissunnguit islands are located in Disko Bay and are also designated as a protected wetland under the Ramsar Convention.²¹⁷⁰ They are protected, in particular, as a breeding ground for Arctic terns as the islands have the

²¹⁶⁰ *ibid* 2, 3, 22; Act on Nature Conservation in Greenland 1980 s 16.

²¹⁶¹ Home Rule Order No 7 of 17 June 1992 on the National Park in North and East Greenland s 6.

²¹⁶² *ibid* 7.

²¹⁶³ *ibid* 9.

²¹⁶⁴ *ibid*.

²¹⁶⁵ *ibid* 30.

²¹⁶⁶ 'Protected Areas' (n 2143).

²¹⁶⁷ Act on Nature Protection 2003 ss 5, 11–18.

²¹⁶⁸ *ibid* 5(1)(1), (4), (8), (9).

²¹⁶⁹ Home Rule Order No 11 of 17 April 2008 on the Protection of Kitsissunnguit; 'Protected Areas' (n 2143).

²¹⁷⁰ Home Rule Order No 11 of 17 April 2008 on the Protection of Kitsissunnguit s 1(2).

largest colony of the birds in the Arctic.²¹⁷¹ Working with the local people who traditionally collect birds and eggs from the islands in order to ensure their support, a conservation system was created which prohibits hunting, fishing and egg collecting during the breeding seasons but which allows access for fishing and recreational use outside of these times.²¹⁷²

The second type of protected areas are designated under sections 11 to 18 which allows Naalakkersuisut to protect land, fresh water and salt water for any of the purposes set out in section one of the act, including the protection of biodiversity.²¹⁷³ The Ilulissat Icefjord is protected in this way, in order to preserve the natural landscape, the cultural history and natural history of the area.²¹⁷⁴ There are no rules regarding the protection of animals, birds or marine life in the icefjord but the collection of all plant species is prohibited except in the case of fuel for cooking.²¹⁷⁵

The other two protected areas located in the Arctic were both created under the older, now repealed, Act No 11 of 12 November 1980 on Nature Conservation in Greenland.²¹⁷⁶ Qimusseriarsuaq (Melville Bay) is a nature reserve located in the far northwest of Greenland.²¹⁷⁷ The reserve covers the marine area and the ‘adjacent land and sea ice’ and is a particularly important area for narwhal which feed where the open water meets the sea ice.²¹⁷⁸ All wildlife is protected and hunting, fishing, egg collecting and passage through the reserve are all prohibited, with a single exception for local hunters seeking to take beluga whale, narwhal, polar bear, walrus or seal using traditional transportation methods of either boats or dog sleds.²¹⁷⁹ The other area protected under the older act is Arnangarnup Qoorua, situated almost right on the Arctic Circle in the west of Greenland and protected for its scenic beauty and for its cultural and scientific value.²¹⁸⁰ All plants and animals

²¹⁷¹ *ibid* 1(1).

²¹⁷² *ibid* 8, 11; Pelle Tejsner and Mette Frost, *Greenland Last Ice Area* (World Wildlife Fund 2012) 89–90.

²¹⁷³ Act on Nature Protection 2003 ss 1, 11–18.

²¹⁷⁴ Home Rule Order No 10 of 15 June 2007 on the Conservation of Ilulissat Icefjord.

²¹⁷⁵ *ibid* 4(2), (3).

²¹⁷⁶ Act on Nature Conservation in Greenland 1980.

²¹⁷⁷ Home Rule Order No 21 of 17 May 1989 on the Nature Reserve in Melville Bay s 1.

²¹⁷⁸ *ibid*; ‘Protected Areas’ (n 2143).

²¹⁷⁹ Home Rule Order No 21 of 17 May 1989 on the Nature Reserve in Melville Bay s 2.

²¹⁸⁰ Home Rule Order No 31 of 20 October 1989 on the Preservation of Arnangarnup Qoorua, Maniitsoq Municipality, West Greenland s 1(1).

within the area are protected and while access is allowed, it is limited to those accessing the area on foot.²¹⁸¹

As well as the protected areas listed under the Act on Nature Protection 2003 and the Act on Nature Conservation 1980, a number of wetland areas are designated under the Ramsar Convention as protected wetlands.²¹⁸² Many wetland sites, particularly in Greenland, are protected because of their importance to bird species. The Ramsar sites are protected under an order of Naalakkersuisut from 2016.²¹⁸³ There are ten Ramsar sites located north of the Arctic Circle in Greenland, including Qínquata Marraa and Kuussuaq on the west coast which is the most important molting site for the king eider and Hochstetter Forland located in the National Park which is a vital breeding ground for the pink footed goose.²¹⁸⁴ Ramsar sites are protected from the deterioration of their conservation status through limitations on access and traffic and through management plans drawn up by either the municipality or Naalakkersuisut.²¹⁸⁵ These management plans may set out specific protections for waterfowl but, in all Ramsar sites, trawling along the seabed, and fishing with nets in the summer (1 March to 30 September), are prohibited for the purpose of ‘safeguarding the food base for waterfowl’.²¹⁸⁶

C.6. Case Studies

C.6.1. *Prosecutors v T*

Case No QAA-UUM-KB-0020-2015, K 170/15

Qaasuitsup Kredsret (District Court) in Uummannaq;

Retten i Grønland

²¹⁸¹ *ibid* 1(2), 2.

²¹⁸² Act on Nature Protection 2003; Act on Nature Conservation in Greenland 1980; Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat (adopted at Ramsar, Iran on 2 February 1971, entered into force 21 December 1975).

²¹⁸³ Self Government Order No 12 of 1 June 2016 on the Protection of Greenland’s Internationally Designated Wetlands and Protection of Certain Waterfowl Species.

²¹⁸⁴ *ibid* 4, Appendix 1 and 2; ‘Greenland’ (n 2144); ‘Qínquata Marraa and Kuussuaq’ (*Ramsar Sites Information Service*, 2002) <<https://rsis.ramsar.org/ris/382>> accessed 10 April 2019; ‘Hochstetter Forland’ (*Ramsar Sites Information Service*, 2002) <<https://rsis.ramsar.org/ris/390>> accessed 10 April 2019.

²¹⁸⁵ Self Government Order No 12 of 1 June 2016 on the Protection of Greenland’s Internationally Designated Wetlands and Protection of Certain Waterfowl Species ss 5–8, 16.

²¹⁸⁶ *ibid* 13.

On 19 July 2014, the accused and his wife left the community of Uummannaq in northwest Greenland to go to the Black Huk peninsula, arriving the following day.²¹⁸⁷ On the day they arrived, the accused spotted a polar bear lying on the ice at a distance of about 3-400 metres.²¹⁸⁸ He shot the polar bear but while then another one stood up and it turned out that there were two bears.²¹⁸⁹ As he could see that the bear was bleeding, he and his wife followed it for about an hour until they found it.²¹⁹⁰ When they realised that it was bleeding from its intestines, he was forced to shoot it to prevent further suffering.²¹⁹¹ Further investigation showed that it was a mother bear with her cub, although the cub was quite large.²¹⁹²

T reported the death of the second polar bear to the Fangst- og jagtafdelingen (Department of Taking and Hunting) on his return to Uummannaq but explained that it was not intentional.²¹⁹³ T was charged with a violation of the Home Rule Order No 21 of 22 September 2005 on the Protection and Capture of Polar Bears, the predecessor to the current order, and which provides that female polar bears with their young, of any age, are protected.²¹⁹⁴ The Prosecutors sought a punishment of 20,000 DKK and confiscation of the bears' skulls, skins, paws, claws and meat.²¹⁹⁵ While T pleaded guilty to the charge, he opposed the level of fine, arguing that he was fully licenced to hunt polar bears, that the killing of the two polar bears was unintentional and that he had reported the incident honestly.²¹⁹⁶

The District Court found that the killing of the polar bears was unintentional and that the accused had reported the incident, acting honestly in doing so.²¹⁹⁷ They also noted that the accused was entitled to hunt a polar bear and that once the second polar bear was injured, it had to be shot to prevent it from suffering.²¹⁹⁸ Taking all of this into account the court

²¹⁸⁷ *Prosecutors v T* (n 307), Transcript pg 2.

²¹⁸⁸ *ibid*, Transcript pg 2.

²¹⁸⁹ *ibid*, Transcript pg 2.

²¹⁹⁰ *ibid*, Transcript pg 2.

²¹⁹¹ *ibid*, Transcript pg 2.

²¹⁹² *ibid*, Transcript pg 2.

²¹⁹³ *ibid*, Transcript pg 2.

²¹⁹⁴ Home Rule Order No 21 of 22 September 2005 on Catching and Protecting Polar Bears (Hjemmestyrets Bekendtgørelse Nr 21 af 22 September 2005 om Fangst og Beskyttelse af Isbjørne) s 2(2).

²¹⁹⁵ *Prosecutors v T* (n 307), Judgment pg 2.

²¹⁹⁶ *ibid*, Transcript pg 2, Judgment pg 2.

²¹⁹⁷ *ibid*, Judgment pg 3.

²¹⁹⁸ *ibid*, Judgment pg 3.

ordered that the skulls, skins, paws, claws and meat of the bears be confiscated but that no fine would be imposed.²¹⁹⁹

The Prosecutors appealed the decision to the Greenland High Court, arguing that the failure to impose a fine was too lenient.²²⁰⁰ The High Court agreed, stating that the accused had been negligent in firing at the polar bear from such a long distance away and that the court believed that the accused had actually seen the second polar bear before shooting.²²⁰¹ A fine of 20,000 DKK was therefore imposed, as well as the confiscation order imposed by the District Court.²²⁰²

C.6.2. *Prosecutors v X1*

Case No K 171/17

Northern District Court

The defendants, T1, X1 and X2, were accused of illegally collecting 135 Arctic tern eggs in the Qasigiannugit district to the south of Disko Bay in western Greenland.²²⁰³ They were also accused of sailing their boats within 200 metres of the Arctic tern colony on the island of Arnatsiait.²²⁰⁴ Egg collection and sailing within 200 metres of a bird colony were both prohibited under sections 7(1), 8(2)(2) and 10(1) of the Home Rule Order No 8 of 2 March 2009 on the Protection and Capture of Birds, now replaced by a similar order dated 2017.²²⁰⁵

The three accused were caught by the police who became suspicious that illegal activity was occurring when they found a number of nets for catching lumpfish.²²⁰⁶ The police sailed towards the Upernivik islands where they observed two boats fleeing the area.²²⁰⁷

²¹⁹⁹ *ibid*, Judgment pg 3.

²²⁰⁰ *ibid*, High Court Judgment pg 1.

²²⁰¹ *ibid*, High Court Judgment pg 3.

²²⁰² *ibid*, High Court Judgment pg 3.

²²⁰³ *Prosecutors v X1* (n 307).

²²⁰⁴ *ibid*.

²²⁰⁵ Home Rule Order No 8 of 2 March 2008 on the Protection and Capture of Birds (Hjemmestyrets Bekendtgørelse Nr 8 af 2 Marts 2008 om Beskyttelse og Fangst af Fugle) ss 7(1), 8(2)(2), 10(1), 23; Self Government Order No 1 of 5 January 2017 on the Protection and Capture of Birds.

²²⁰⁶ *Prosecutors v X1* (n 307).

²²⁰⁷ *ibid*.

With the assistance of the Danish Fisheries Patrol, both boats were caught and 135 Arctic tern eggs were confiscated.²²⁰⁸

T1 confessed to the police who judged that the collection of the eggs was for personal use rather than for commercial sale.²²⁰⁹ The lay judge, considering the evidence of the prosecutors and the confession of T1 found him guilty of breaches of all three sections of the Order on the Protection and Capture of Birds.²²¹⁰ The court imposed a total fine of 30,000 DKK which was made up of a fine of 25,000 DKK for the collection of Arctic tern eggs for personal use and 5,000 DKK for unnecessarily disturbing an Arctic tern colony.²²¹¹

²²⁰⁸ *ibid.*

²²⁰⁹ *ibid.*

²²¹⁰ *ibid.*; Home Rule Order No 8 of 2 March 2008 on the Protection and Capture of Birds (Hjemmestyrets Bekendtgørelse Nr 8 af 2 Marts 2008 om Beskyttelse og Fangst af Fugle) ss 7(1), 8(2)(2), 10(1), 23.

²²¹¹ *Prosecutors v X1* (n 307).

D. Norway

D.1. History and Geography of Arctic Norway, Svalbard and Jan Mayen

D.1.1. Mainland Norway

Norway has been inhabited since the end of the last ice age when the receding of the ice meant that people were able to move northwards.²²¹² Evidence of people has been found in Troms and Finnmark from as early as 8,000BC when it is believed that nomadic hunter gatherers lived on the land.²²¹³ Later, the Sámi people arrived, possibly from the east, engaging in fishing and reindeer hunting and others migrated from the south, bringing with them new agricultural practices and eventually becoming involved in the trading of furs.²²¹⁴ The northern region of Norway retains a cultural and ethnic mix of Sámi and Norwegian descendants to this day.²²¹⁵

In 1397, Norway joined the Kalmar Union of Sweden, Norway and Denmark, and when Sweden left the union in 1523, Norway was left as part of the Danish kingdom, ruled from Copenhagen.²²¹⁶ Norway and Denmark sided with France during the Napoleonic wars, with Norway facing crippling wars with Sweden and Great Britain.²²¹⁷ Following Napoleon's defeat in 1813, the Danish king was forced to cede Norway to Sweden as part of the Treaty of Kiel signed the following year.²²¹⁸ Later in 1814, Norway appointed its own regent and established its own constitution, but after a brief period of hostilities with Sweden and the abdication of the newly appointed king, Norway accepted union with Sweden.²²¹⁹ It was not until 1905 that Norway finally achieved independence.²²²⁰ Today Norway is a constitutional monarchy although the king's role is mostly ceremonial and the

²²¹² Karen Larsen, *History of Norway* (Princeton University Press 2015) 6.

²²¹³ *ibid* 5–6.

²²¹⁴ *ibid* 10, 17.

²²¹⁵ Torunn Pettersen, 'Out of the Backwater? Prospects for Contemporary Sámi Demography in Norway' in Per Axelsson and Peter Sköld (eds), *Indigenous Peoples and Demography: The Complex Relation between Identity and Statistics* (Berghahn Books 2011) 187.

²²¹⁶ Larsen (n 2212) 209–210, 228, 232.

²²¹⁷ *ibid* 365–369.

²²¹⁸ *ibid* 365–369, 374.

²²¹⁹ *ibid* 378–385, 390–395.

²²²⁰ *ibid* 484, 495.

executive authority vested in the king by the constitution is exercised by his government.²²²¹

Most of mainland Norway, and the majority of the population of Norway is located south of the Arctic Circle. However, the northern half of the county of Nordland and all of the counties of Troms and Finnmark are located within the Arctic and Norway has a lengthy coastline in the Arctic. Although the land lies north of the Arctic circle, as a result of the Gulf Stream, the climate in the Arctic region of mainland Norway is mostly not an Arctic climate. The average temperatures rise to an average of 13°C during the summer and only about half of Finnmark is north of the tree line. The west of the region is characterised by sweeping fjords, towering alpine mountains and seemingly endless forests while the east is mainly sub-Arctic tundra. The main indicator that the region is Arctic is the light: Troms and Finnmark both experience lengthy periods of polar night in the winter and midnight sun in the summer.

The Arctic region of Norway is far less remote than its counterparts in other countries and, with a population of almost a quarter of a million people, it is more heavily populated than many other parts of the Arctic. The biggest city, Tromsø, is home to 75,000 people and boasts a large university and an expanding tourist industry. Tromsø has a sizeable airport offering domestic and international flights and the city, like all the towns and villages throughout Troms and Finnmark, is connected to the south of Norway by road. There are no trains this far north but the Hurtigruten provides a daily boat service which transports goods and people along the coast.²²²²

D.1.2. Svalbard

Svalbard lies in the Arctic Ocean, 450 miles north of the northern Norwegian coast, about half way between Norway and the North Pole. The archipelago is defined by the Svalbard Treaty as ‘all of the islands situated between 10° and 35° longitude East of Greenwich and between 74 ° and 81 ° latitude North’ and also includes Bear Island (Bjørnøya) located in the middle of the Barents Sea, about half way between the northern coast of Norway and

²²²¹ ‘The Monarchy Today’ (*Royal House of Norway*)

<<http://www.royalcourt.no/seksjon.html?tid=27679&sek=27258>> accessed 31 October 2018; ‘The King’s Constitutional Role’ (*Royal House of Norway*)

<<http://www.royalcourt.no/seksjon.html?tid=29977&sek=27300>> accessed 31 October 2018.

²²²² ‘Hurtigruten’ <<https://www.hurtigruten.no>> accessed 1 November 2018.

Svalbard.²²²³ The islands are mostly covered with steep, jagged mountains rising to over 1,700 metres, deep fjords filled with ice in the winter and valleys filled with glaciers.²²²⁴ Up to 60% of the land is covered in glacial ice and the land not covered with glaciers is permafrost.²²²⁵ There is little vegetation and the non-glacial landscape is primarily rocky.²²²⁶

The climate of Svalbard is Arctic, with mean annual air temperatures below zero across the entire archipelago.²²²⁷ In the summer, the mean temperature remains below 10°C so the archipelago lies north of the 10°C July isotherm.²²²⁸ Precipitation is mainly in the form of snow although the islands warm sufficiently that, at lower altitudes, the snow melts in the summer. Due to its northerly location, Svalbard experiences lengthy periods of polar night and midnight sun with approximately four months of each.²²²⁹

The largest town on Svalbard is Longyearbyen, a former company town owned by Store Norske coal mining company.²²³⁰ The town is home to approximately 2,000 people and provides services including an airport, shops, kindergartens, a school, a church, a university, hotels and various tourist companies.²²³¹ The traditional mining industry is declining but tourism is growing rapidly in Svalbard with an estimated 70,000 visitors a year, many arriving by cruise ship in the summer and others coming in the winter to watch the northern lights or to take part in snowmobiling or husky dog sled rides.²²³² Outside of Longyearbyen there are only a few small settlements. The Russian town of Barentsburg is home to approximately 400 workers employed in its coal mines and the abandoned town of Pyramiden hosts a small number of workers during the summer.²²³³ There are also a

²²²³ Treaty between Norway, the United States of America, Denmark, France, Italy, Japan, the Netherlands, Great Britain and Ireland and the British Overseas Dominions and Sweden Concerning Spitsbergen (signed at Paris 9 February 1920, entered into force 14 August 1925) (Svalbard Treaty) s 1.

²²²⁴ Ólafur Ingólfsson, 'Outline of the Geography and Geology of Svalbard' 1.

²²²⁵ *ibid* 2.

²²²⁶ Christian Lydersen, Harald Steen and Inger Greve Alsos, 'Svalbard' in JA Kålås and others (eds), *Environmental Conditions and Impacts for Red List Species* (Norwegian Biodiversity Information Centre 2010) 120.

²²²⁷ Ingólfsson (n 2224) 1.

²²²⁸ Lydersen, Steen and Alsos (n 2226) 119–120.

²²²⁹ *ibid* 120.

²²³⁰ Torbjørn Pedersen, 'The Politics of Presence: The Longyearbyen Dilemma' [2017] 95–108 96 <<https://brage.bibsys.no/xmlui/handle/11250/2459882>> accessed 30 October 2018.

²²³¹ *ibid* 95.

²²³² Samantha M Saville, 'Tourists and Researcher Identities: Critical Considerations of Collisions, Collaborations and Confluences in Svalbard' [2018] *Journal of Sustainable Tourism* 1, 2–3.

²²³³ *ibid* 2.

number of small research stations scattered across Svalbard, in particular at Ny Ålesund in the north.²²³⁴

The first confirmed visit to Svalbard was undertaken by Willem Barentsz, a Dutch navigator who commanded an expedition of two ships which reached Svalbard on 17 June 1596 while seeking the Northern Sea Route which, it was thought would give the Dutch trading access to Russia, India and China.²²³⁵ In 1596, Barentsz was in command of his third expedition to the north.²²³⁶ The first two expeditions having met with ice, the plan was to head further north to what was hoped would be open water.²²³⁷ On reaching 80°N, the two ships saw land, which they thought was part of Greenland.²²³⁸ They named the land Spitsbergen because of the pointed mountains they witnessed and an outline of the island, albeit named Het Nieuwe Land, appeared on Barentsz' map published in 1598.²²³⁹

The early history of Svalbard is one of whaling, hunting and trapping.²²⁴⁰ For about 100 years, during the seventeenth century, Svalbard had a thriving whaling industry, serving the clamour across Europe for whale oil, which was used for lighting and for lubricating machinery, and for baleen, which was used in the manufacture of corsets, collar stiffeners and parasols.²²⁴¹ Over exploitation saw the population of whales fall dramatically until, by the end of the century, few remained, and the whalers moved on to other sites.²²⁴² The whalers were replaced by sealers and trappers from Norway and by Pomor trappers from Russia who sought walrus tusks, hide and blubber and fox and polar bear furs.²²⁴³ Russian trappers were eventually replaced by Norwegian trappers who, in the late 19th and early 20th century who brought back fur, down and meat to trade on the mainland.²²⁴⁴

²²³⁴ *ibid.*

²²³⁵ Thor B Arlov, *A Short History of Svalbard* (Norsk Polarinstitut 1994) 9.

²²³⁶ *ibid.* 10.

²²³⁷ *ibid.*

²²³⁸ *ibid.* 9–10.

²²³⁹ *ibid.* 9; Geir Ulfstein, *The Svalbard Treaty: From Terra Nullius to Norwegian Sovereignty* (Scandinavian University Press 1995) 23.

²²⁴⁰ 'Historical Background' (*Svalbard Sysselmannen*)

<<http://www.sysselmannen.no/en/Toppmeny/About-Svalbard/Historical-background/>> accessed 7 November 2018.

²²⁴¹ *ibid.*

²²⁴² *ibid.*

²²⁴³ *ibid.*

²²⁴⁴ *ibid.*

Until the 1920s, Svalbard was a *terra nullius* and belonged to no-one. Claims had been made over the island by various nations but the question of sovereignty had never been settled and, with an increasing number of disputes over land claimed by prospectors, the administration of the archipelago was becoming difficult.²²⁴⁵ Prior to the First World War there had been three conferences aimed at deciding who should administer Svalbard.²²⁴⁶ At the pre-war conferences, the Norwegians offered ‘to rule the islands under international mandate’ but the idea was opposed.²²⁴⁷ After the war, the Norwegians requested that the issue of the sovereignty of Svalbard be considered at the Paris Peace Conference held in 1919.²²⁴⁸ A special commission was created and Norway was asked to provide a draft treaty over which negotiations could take place.²²⁴⁹ The final wording of the treaty granted sovereignty to Norway while still maintaining the right to access the island which were enjoyed while the land was *terra nullius*.²²⁵⁰ The Treaty of Spitsbergen (now commonly referred to as the Svalbard Treaty) was signed on 9 February 1920.²²⁵¹ The Russians, who had opposed earlier Norwegian attempts to exert sovereignty, had been excluded from the Peace Conference and were therefore not able to object to the terms of the treaty. The treaty came into force on 14 August 1925 at which point Norway gained ‘full and absolute sovereignty’ of the islands.²²⁵² The Svalbard Act of 1925 made Svalbard part of the Kingdom of Norway and made arrangements for the governance and administration of the islands, including the creation of the post of Governor, the application of Norwegian criminal and private law and the establishment of a local government in Longyearbyen.²²⁵³

The Svalbard Treaty grants ‘full and absolute sovereignty’ over all of the islands in the archipelago to Norway but makes this sovereignty subject to a number of limitations.²²⁵⁴ In particular, the treaty grants equal rights of access, to undertake commercial activity and to undertake hunting and fishing to all nationals of the signatory powers on the same basis

²²⁴⁵ Roald Berg, ‘From “Spitsbergen” to “Svalbard”’. Norwegianization in Norway and in the “Norwegian Sea”, 1820–1925’ (2013) 30 *Acta Borealia* 154, 166; Christopher R Rossi, ‘A Unique International Problem: The Svalbard Treaty, Equal Enjoyment, and Terra Nullius: Lessons of Territorial Temptation from History’ (2016) 15 *Wash. U. Global Stud. L. Rev.* 93, 127–128.

²²⁴⁶ Berg (n 2245) 166; Rossi (n 2245) 127–128.

²²⁴⁷ Berg (n 2245) 166; Rossi (n 2245) 127–128.

²²⁴⁸ Rossi (n 2245) 128; Ulfstein (n 2239) 42.

²²⁴⁹ Rossi (n 2245) 131; Ulfstein (n 2239) 43.

²²⁵⁰ Ulfstein (n 2239) 49.

²²⁵¹ Svalbard Treaty 1920.

²²⁵² *ibid.*

²²⁵³ Act of 17 July 1925 No 11 on Svalbard (Svalbardloven).

²²⁵⁴ Svalbard Treaty 1920 s 1.

as held by Norwegians.²²⁵⁵ This means that foreign nationals on Svalbard have far more rights than they would do on mainland Norway. The treaty grants Norway the right to implement environmental regulations which are aimed at protecting flora and fauna on land and in the sea surrounding Svalbard and the Svalbard Environmental Protection Act which is the main environmental law in Svalbard (see D.4.2.1 below) was made under the authority of the treaty and the Svalbard Act of 1925.²²⁵⁶

D.1.3. Jan Mayen

Jan Mayen is a small volcanic island situated in the Arctic Ocean to the west of Norway.²²⁵⁷ It lies at 71°N which places it approximately 600km north of Iceland.²²⁵⁸ The island is 55km long and is dominated by its volcano, Beerenberg, which looms over the rest of the island from a height of 2277 metres.²²⁵⁹ Beerenberg last erupted in 1985 but it remains an active volcano.²²⁶⁰ The landscape is barren; large parts of the island consist of volcanic rock and sand.²²⁶¹ No trees or shrubs grow on the island although there are some species of mosses and lichens.²²⁶² The climate is an Arctic-maritime climate, making the island cold, wet and frequently shrouded in mist.²²⁶³ The island lies directly on the boundary between the warm Gulf Stream and the cold East Greenland current. The latter brings cold water and drift ice down towards Jan Mayen from Greenland although in recent years there has been very little drift ice which has reached the island itself.²²⁶⁴

Little is known about the early history of Jan Mayen and while there are legends of Irish monks and Vikings travelling to the island, there is no conclusive proof that anyone had discovered Jan Mayen before John Clarke, an English whaler discovered the island in 1614.²²⁶⁵ Once discovered, the island attracted a large number of whalers who caught

²²⁵⁵ *ibid* 2–3, 7–8.

²²⁵⁶ Svalbard Environmental Protection Act 2001; Svalbard Treaty 1920; Svalbard Act 1925.

²²⁵⁷ 'Jan Mayen' (*jan.meyen.no*) <<http://jan.meyen.no/>> accessed 10 September 2018.

²²⁵⁸ Pål Prestrud, Hallvard Strøm and Helle Goldman (eds), *A Catalogue of the Terrestrial and Marine Animals of Svalbard* (Norsk Polarinstitutt 2004).

²²⁵⁹ 'Jan Mayen' (n 2257).

²²⁶⁰ 'Jan Mayen Information' (n 353).

²²⁶¹ *ibid*.

²²⁶² *ibid*.

²²⁶³ *ibid*.

²²⁶⁴ *ibid*.

²²⁶⁵ Louwrens Hacquebord, 'The Jan Mayen Whaling Industry' in Stig Skreslet (ed), *Jan Mayen Island in Scientific Focus* (Kluwer Academic Publishers 2004) 230.

Greenland right whales in the icy oceans surrounding the island.²²⁶⁶ Whales were caught at such an unsustainable level, however, that by 1640 the population of Greenland right whale had shrunk to almost nothing and the whalers moved on to other waters.²²⁶⁷ Jan Mayen was abandoned for over two centuries until, in the International Polar Year of 1882-1883, the Austro-Hungarian North Pole expedition spent a year there, building a polar station and mapping the island.²²⁶⁸ Within a few years, Norwegian trappers had discovered a wealth of trapping opportunities on Jan Mayen and spent winters on the island seeking blue and white Arctic foxes and polar bears.²²⁶⁹ Conditions were hard and the population of foxes was soon overexploited; by the early 1920s trapping had ceased on Jan Mayen.²²⁷⁰

Like Svalbard, control over Jan Mayen was given to Norway by the League of Nations in 1921. A Royal Decree on 8 May 1929 placed Jan Mayen under the sovereignty of the Norwegian crown and on 21 February 1930, the Norwegian Stortinget passed an act bringing Jan Mayen into the Kingdom of Norway.²²⁷¹ The act imposed Norwegian criminal and private law on the island and allowed the King to introduce any other part of Norwegian law to Jan Mayen.²²⁷² Section 4 of the Svalbard Act of 1925 which allows the King of Norway to issue regulations regarding public services in Svalbard applies equally in Jan Mayen.²²⁷³ In 2001, the Act on Jan Mayen was amended to allow the King to issue regulations on environmental protection for Jan Mayen.²²⁷⁴

There is no resident population on Jan Mayen; the only settlement is Olokinbyen which is the temporary home of approximately 18 members of the Norwegian Armed Forces and the Norwegian Meteorological Institute.²²⁷⁵ The staff operate a meteorological station close to Olokinbyen and until 2015 manned a long-range navigation system.²²⁷⁶ Postings to Jan Mayen last for up to one year with arrivals and departures limited by the fact that

²²⁶⁶ *ibid.*

²²⁶⁷ 'Jan Mayen' (n 2257).

²²⁶⁸ 'Historie of Jan Mayen' (*jan.meyen.no*) <<http://jan.mayen.no/historie/>> accessed 10 September 2018.

²²⁶⁹ *ibid.*

²²⁷⁰ *ibid.*

²²⁷¹ Royal Decree of 8 May 1929 on Norwegian Sovereignty Over Jan Mayen; Act of 21 February 1930 No 2 relating to Jan Mayen.

²²⁷² Jan Mayen Act 1930 s 2.

²²⁷³ *ibid.*

²²⁷⁴ *ibid.*

²²⁷⁵ 'Jan Mayen Brief History' <<https://www.jan-mayen.no/history/history.htm>> accessed 7 November 2018.

²²⁷⁶ *ibid.*

there are only eight to twelve flights to the island annually.²²⁷⁷ It is possible to travel to the island by ship but there are strict rules on where boats can land.²²⁷⁸

D.2. Government and Legal System

D.2.1. Government

Norway is a constitutional monarchy with a parliamentary system of government.²²⁷⁹ The Constitution was drafted in 1814 when Norway gained independence from Denmark.²²⁸⁰ The Constitution vested executive power in a hereditary King or Queen and gives him or her a significant amount of power.²²⁸¹ The Constitution envisages a strong monarchy but constitutional customary law, the amending of the Constitution through practice rather than in writing, has limited the power of the King over time without the need for a new constitution.²²⁸² As a result of this, Norway still retains its original Constitution, although there have been some textual changes as well as the customary ones.²²⁸³ The principle of separation of powers, however, which was first introduced with the new Constitution in 1814, remains in place to this day.²²⁸⁴

Executive power in modern Norway is shared between the King and his government. Although the Constitution grants executive power to the King, the power is actually exercised by the Statsrådet (Council of State) which acts as the government. The Constitution grants the King the authority to select the members of the Statsrådet but nowadays, by constitutional customary law, the King asks the party with the most members elected to the Storting to form the Statsrådet. The Statsrådet is led by the Statsminister (Prime Minister) who must, along with his or her colleagues in the Statsrådet, command the support of the Storting in order to remain in power.

²²⁷⁷ *ibid.*

²²⁷⁸ Jan Mayen Nature Reserve Regulations 2010 s 4.3.

²²⁷⁹ Kongeriket Norges Grunnlov (Constitution of Norway) 1814 (as amended).

²²⁸⁰ Kongeriket Norges Grunnlov (Constitution of Norway) 1814; Kritzer, *Legal Systems of the World* (n 1251) 1211.

²²⁸¹ Kongeriket Norges Grunnlov (Constitution of Norway) 1814, articles 1-48.

²²⁸² *ibid.*, articles 1-48; Kritzer, *Legal Systems of the World* (n 1251) 1212–1213.

²²⁸³ Kongeriket Norges Grunnlov (Constitution of Norway) 1814.

²²⁸⁴ Kongeriket Norges Grunnlov (Constitution of Norway) 1814, articles 3, 49, 87; Kongeriket Norges Grunnlov (Constitution of Norway) 1814, articles 3, 49, 86; Kritzer, *Legal Systems of the World* (n 1251) 1211.

Legislative power rests with the Storting, a unicameral parliamentary body which sits in Oslo.²²⁸⁵ Prior to 2009, the Storting had two chambers, with elected members sorting themselves into an upper chamber and a lower chamber; the two chambers were abolished in 2009 and a single chamber created. The Storting has 169 members, together representing the 19 constituencies with 1 member-at-large representing each constituency and the other 150 seats allocated on a system that takes into account both the population of a constituency and its relative area.²²⁸⁶ Elections are held every four years and members are elected based on a system of proportional representation.²²⁸⁷ The Storting's main role is to enact laws and to make financial arrangements for the kingdom, including the imposition of taxes.²²⁸⁸ Legislation is initially proposed by the government and, once passed by the Storting is signed by the King and counter-signed by the Prime Minister.²²⁸⁹

Judicial power in Norway is held by an independent judiciary.²²⁹⁰ This principle was enunciated by the Constitution in 1814 but has been part of the Norwegian legal system since the first legal code in the 1270s.²²⁹¹ The highest court is the Supreme Court and this court adopted the power, created by itself, to review the decisions of the government through judicial review, thereby demonstrating its independence.²²⁹²

D.2.2. Legal System

Norway has a Nordic legal system but one which borrows heavily from customary law and common law as well as from the civil law tradition which has influenced the other Nordic countries.²²⁹³ Customary law gives equal weight to current practices as it does to the text of a constitution or statute and, like common law, allows judges to reinterpret or even amend laws.²²⁹⁴ The principles of customary law include concepts such as a 'common sense of justice' among Norwegian people and a desire for a fair result.²²⁹⁵ As society has changed these concepts have been used to allow changes to take place in order to reflect

²²⁸⁵ Kongeriket Norges Grunnlov (Constitution of Norway) 1814, article 49.

²²⁸⁶ *ibid*, article 57.

²²⁸⁷ *ibid*, articles 54, 59.

²²⁸⁸ *ibid*, article 75.

²²⁸⁹ *ibid*, articles 76-78.

²²⁹⁰ *ibid*, articles 86-91.

²²⁹¹ Kongeriket Norges Grunnlov (Constitution of Norway) 1814, article 87.

²²⁹² Kritzer, *Legal Systems of the World* (n 1251) 1212.

²²⁹³ *ibid* 1210-1211.

²²⁹⁴ *ibid* 1212.

²²⁹⁵ *ibid*.

‘societal norms’.²²⁹⁶ The Norwegian courts can resemble both civil law courts and common law ones.²²⁹⁷ The former occurs when the judges apply the terms of legislation or a codification while the common law approach is more recognisable when judges apply customary law or judicial precedents.²²⁹⁸

D.2.3. Sources of Law

The Norwegian Constitution, which is the primary source of law in Norway, was written in 1814.²²⁹⁹ Although it has been substantially amended, it remains the second oldest constitution in the world (after the United States).²³⁰⁰ Constitutional amendments come in the form of textual amendments and customary amendments which follow current practice rather than the wording of the Constitution.²³⁰¹ Customary law also sees judges establishing rules through decisions in court.²³⁰² Almost all of Norwegian tort law has been created in this way.²³⁰³ Other sources of law in Norway include legislation passed by the Storting, codifications of law, regulations drafted under the authority of legislation, case law, preparatory works, customary practice, administrative practice, legal literature and ideas relating to equity, fairness and justice.²³⁰⁴ There are, therefore, a broad range of different sources, both written and unwritten, which make up Norwegian law.

D.2.4. Courts

There is a single court system in Norway, rather than the dual systems of ordinary and administrative courts seen in Sweden and Norway.²³⁰⁵ The Norwegian system does, however, have a similar three tier arrangement found in most of the other jurisdictions in this study, and also has a number of specialist courts and tribunals.²³⁰⁶ The court of first instance is the Tingrett (district court).²³⁰⁷ The Tingrett hears all criminal cases and most

²²⁹⁶ *ibid.*

²²⁹⁷ *ibid* 1213.

²²⁹⁸ *ibid.*

²²⁹⁹ Kongeriket Norges Grunnlov (Constitution of Norway) 1814.

²³⁰⁰ *ibid.*

²³⁰¹ Kritzer, *Legal Systems of the World* (n 1251) 1212.

²³⁰² *ibid.*

²³⁰³ *ibid.*

²³⁰⁴ Torstein Eckhoff and Jan E Helgesen, *Rettskildelære (Sources of Law)* (5th edn, Universitetsforlaget 2001).

²³⁰⁵ Kritzer, *Legal Systems of the World* (n 1251) 1213.

²³⁰⁶ *ibid.*

²³⁰⁷ *ibid* 1214; ‘Tingrettene’ (*Norges Domstoler*) <<https://www.domstol.no/no/om-domstolene/dealminnelige-domstolene/tingrettene/>> accessed 31 July 2019.

civil cases, although some civil cases must go through mediation before the Forlikrådet (Conciliation Council) before reaching the Tingrett.²³⁰⁸ There are 63 Tingrettene located throughout Norway, each one headed by a Sorenskriver or Magistrate.²³⁰⁹ Appeals from the Tingrett are heard by a Lagmannsrett, a court of appeal, of which there are six located throughout Norway.²³¹⁰ A Førstelagmann leads each of the Lagmannsretten and is assisted by a number of judges who usually sit in panels of three to hear appeals.²³¹¹ The Lagmannsrett for the Arctic region is Hålogaland Lagmannsrett located in Tromsø.²³¹²

Final appeals are to the Norges-Høyesterett (Norwegian Supreme Court).²³¹³ The court was first established by the Norwegian Constitution in 1815 as an independent judicial body.²³¹⁴ The court sits in Oslo with twenty høyesterettsjustitiarius (judges) led by the Leder av Høyesterett (Chief Justice).²³¹⁵ The court hears cases which raise matters of principle and, as such, permission to appeal is required to appeal to the court.²³¹⁶

D.2.5. Svalbard and Jan Mayen

The position in relation to Svalbard has already been outlined above at D.1.2. The Svalbard Treaty, concluded after the First World War, grants sovereignty to Norway with limitations which protect the rights of the other signatory powers.²³¹⁷ As part of the Kingdom of Norway under the Svalbard Act 1925, Svalbard is governed in much the same way as the rest of the country.²³¹⁸ The head of state is the Norwegian King and he, together with his government, exercises executive power.²³¹⁹ The Storting legislates for Svalbard and the courts of Norway exercise judicial power. The island is governed, at a local level, by the Sysselmannen (governor) and an elected local council, the Longyearbyen lokalstyre.²³²⁰ According to the Svalbard Act 1925, Norwegian private law, criminal law and the laws on

²³⁰⁸ Kritzer, *Legal Systems of the World* (n 1251) 1214; 'Tingrettene' (n 2307).

²³⁰⁹ 'Tingrettene' (n 2307).

²³¹⁰ Kritzer, *Legal Systems of the World* (n 1251) 1213.

²³¹¹ *ibid.*

²³¹² 'Om Hålogaland Lagmannsrett' (*Norges Domstoler*) <<https://www.domstol.no/en/Enkelt-domstol/Halogaland-Court-of-Appeals/om-halogaland-lagmannsrett/>> accessed 31 July 2019.

²³¹³ Kongeriket Norges Grunnlov (Constitution of Norway) 1814, article 88.

²³¹⁴ Kongeriket Norges Grunnlov (Constitution of Norway) 1814, article 88.

²³¹⁵ 'Norges Høyesterett' (*Norges Domstoler*) <<https://www.domstol.no/no/Enkelt-domstol/-norges-hoyesterett/>> accessed 31 July 2019; Kritzer, *Legal Systems of the World* (n 1251) 1213.

²³¹⁶ 'Norges Høyesterett' (n 2315); Kritzer, *Legal Systems of the World* (n 1251) 1213.

²³¹⁷ Svalbard Treaty 1920.

²³¹⁸ Svalbard Act 1925 s 1.

²³¹⁹ *ibid.*

²³²⁰ *ibid* 5, 8.

justice all apply to Svalbard.²³²¹ Other legislation only applies where it is stated to apply.²³²² The King has authority to make regulations for Svalbard on the topic of public services.²³²³

As the rules on justice apply to Svalbard, the archipelago falls under the authority of the Norwegian court system.²³²⁴ The court of first instance is the Nord Troms Tingrett and the court of appeal is the Hålogaland Lagmannsrett.²³²⁵ Appeals are heard, where permission is so granted, by the Supreme Court in Oslo.

As was explained at D.1.3 above, the governance of Jan Mayen is similar to that of Svalbard. Norway was given sovereignty of the island after the First World War and it now forms part of the Kingdom of Norway with executive, legislative and judicial power shared between the King and his Statsrådet, the Storting and the independent courts.²³²⁶ The island is governed by the governor of Nordland although some authority is delegated to the commander of the Norwegian armed forces on the island. Like with Svalbard, the island comes under the authority of the Norwegian courts.²³²⁷ The court of first instance for Jan Mayen is the Salten Tingrett on the mainland and the court of appeal is the Hålogaland Lagmannsrett.²³²⁸ As with all courts in Norway, appeals are to the Supreme Court.

D.3. Arctic Wildlife in Norway

D.3.1. Mainland Norway

There are a number of large predators in Finnmark and Troms including black bear, lynx and wolverine.²³²⁹ There are a small number of individual wolves but the main wolf packs are found much further south.²³³⁰ Smaller mammals found in northern Norway include the

²³²¹ *ibid* 2.

²³²² *ibid*.

²³²³ *ibid* 4.

²³²⁴ *ibid* 2, 6, 7.

²³²⁵ 'Regulations of 8 March 1985 No 532 on Judicial Authority on Svalbard (Forskrift Om Domsmyndighet På Svalbard)' ss 1–2.

²³²⁶ Royal Decree of 8 May 1929 on Norwegian Sovereignty Over Jan Mayen; Jan Mayen Act 1930.

²³²⁷ Regulations of 21 November 1980 No 12 on Judicial Administration of Jan Mayen (Forskrift om Administrasjon av Jan Mayen).

²³²⁸ *ibid* 1–2.

²³²⁹ 'Large Carnivores' <<http://www.miljostatus.no/topics/biodiversity/species-in-norway/large-carnivores/>> accessed 7 November 2018.

²³³⁰ *ibid*.

Arctic fox, which is considered to be critically endangered on the mainland, Norwegian lemmings, on which the Arctic fox feeds, mountain hares and a number of species of vole.²³³¹ The rivers, lakes and fjords are home to otters.²³³² On mainland Norway, Sami people still engage in traditional reindeer herding and, unlike in North America, there are therefore few wild reindeer. Reindeer herding is carried out by entitled Sami people within the Sami Reindeer Herding Areas which are located in the north of Norway, including in Troms and Finnmark.²³³³ The management of reindeer is governed by the Reindeer Husbandry Act, the details of which are beyond the scope of this chapter.²³³⁴ Although wild reindeer are rare or non-existent, wild moose are fairly widespread across Arctic Norway.²³³⁵

There is less diversity of marine mammals on the coast of mainland Norway than is found on Svalbard. The two most common species of seal found along the coast are harbour seals and grey seals.²³³⁶ The harbour seals tend to be found in fjords whereas the grey seals are found further out to sea.²³³⁷ Ringed seals and harp seals only venture as far south as the Norwegian mainland when they are forced to do so in search of food.²³³⁸ Whale species found on the Norwegian coast include the killer whale and minke whale, the latter of which is hunted for food in Norway.²³³⁹

Birdlife in Arctic Norway is extremely diverse and the different habitats found within the region host large numbers of different bird species, many of which migrate north for the summer. The islands and fjords found on the western coast are vital breeding grounds for species of seabirds such as common guillemot, black-legged kittiwake, European shag and

²³³¹ 'Species in Norway' <<http://www.environment.no/topics/biodiversity/species-in-norway/Rapport>> accessed 2 July 2018; Chester (n 24) 42–47, 56.

²³³² Chester (n 24) 86–87.

²³³³ Act of 15 June 2007 on Reindeer Husbandry (Reindrifstloven) s 4; Johnny-Leo L Jernsletten, 'Reindeer Husbandry in Norway', *Sustainable Reindeer Husbandry*.

²³³⁴ Reindeer Husbandry Act 2007.

²³³⁵ Chester (n 24) 64–65; 'Finnmark' 3.

²³³⁶ Ministry of Foreign Affairs, 'Fact Sheet on Norwegian Coastal Seals'.

²³³⁷ *ibid.*

²³³⁸ *ibid.*

²³³⁹ Ministry of the Environment, 'Integrated Management of the Marine Environment of the Barents Sea and the Sea Areas off the Lofoten Islands Report No 8 on to the Storting (2005–2006)' [2005] Report to the Storting No 8 30; Erik Olsen and Jens Christian Holst, 'A Note on Common Minke Whale (Balaenoptera Acutorostrata) Diets', in *the Norwegian Sea and the North Sea. Journal of Cetacean Research and Management* (2001).

Atlantic puffin.²³⁴⁰ Further inland, ‘wading birds, ducks, geese and Whooper Swans’ nest in the numerous wetland areas and ‘Steller’s eider, common eider, king eider and long-tailed duck’ spend the winter in the fjords of Finnmark.²³⁴¹

In the south of the region, the primary vegetation is the vast spruce, birch and pine forests.²³⁴² Towards the eastern plains in Finnmark, the pine forests give way to gentle rolling hills where lichens, heathers and ‘sparse birch forests’ are more common.²³⁴³ This part of the region also has a number of wetlands where marsh plants flourish.²³⁴⁴ In the high mountains to the west, delicate alpine flowers bloom during the summer months. Berries ripen in the early autumn across the region when berry picking becomes an important cultural activity.²³⁴⁵ Popular berries include blueberries, lingonberries and raspberries.²³⁴⁶ The Finnmark county flower is the cloudberry plant, the berries of which are considered to be a delicacy.²³⁴⁷

D.3.2. Svalbard

Svalbard is incredibly biodiverse, with an estimated 5,800 different species found on the islands or in the surrounding waters.²³⁴⁸ Most of these species are invertebrates or plants but there are a number of mammals which live on Svalbard or in Svalbard’s marine environment and there are also a huge number of birds which migrate to Svalbard during the summer.²³⁴⁹

There are three terrestrial mammals found on Svalbard, the Arctic fox, the Svalbard reindeer and the sibling vole.²³⁵⁰ The Svalbard reindeer is the smallest of the seven

²³⁴⁰ Ministry of the Environment (n 2339) 29.

²³⁴¹ *ibid* 32; ‘Finnmark’ (n 2335) 3.

²³⁴² ‘Troms’ <<https://nordnorge.com/EN-midt-troms/?News=166>> accessed 7 November 2018.

²³⁴³ ‘Finnmark’ (n 2335) 3.

²³⁴⁴ *ibid*.

²³⁴⁵ Thomas Nilsen, ‘All You Didn’t Know About Cloudberry - the Healthy Gold of the Arctic’ *The Independent Barents Observer* (10 August 2017) <<https://thebarentsobserver.com/en/arctic/2017/08/all-you-didnt-know-about-cloudberry-healthy-gold-arctic>> accessed 7 November 2018.

²³⁴⁶ ‘Food in Northern Troms’ (*Northern People*) <<http://nordligefolk.no/hjem-2/mat-og-oppskrifter-2/mat-tradisjoner-nord-troms/?lang=en>> accessed 7 November 2018.

²³⁴⁷ ‘Finnmark’ (n 2335) 3; Nilsen (n 2345).

²³⁴⁸ Lydersen, Steen and Alsos (n 2226) 123.

²³⁴⁹ *ibid* 123–124.

²³⁵⁰ *Protected Areas in Svalbard* (Norwegian Directorate for Nature Management) 9 <http://www.miljodirektoratet.no/Global/dokumenter/Publikasjoner/Brosjyrer/Eng_brosj_Svalbard_web_opp.pdf> accessed 26 September 2018.

subspecies of reindeer found in the Arctic.²³⁵¹ It roams wild on all parts of Svalbard except the glaciers and, being endemic to Svalbard is well adapted to the harsh climate and long, dark winters.²³⁵² Svalbard reindeer have short legs, large bellies and rounded heads.²³⁵³ In the summer they feed on the luscious vegetation which grows on Svalbard in the long summer days and in the winter they rely on their fat and muscle stores to survive. The other endemic mammal on Svalbard is the Arctic fox. The Svalbard population of Arctic fox is much more stable on Svalbard than it is on the mainland of Norway and both blue and white Arctic foxes are prevalent across the islands.²³⁵⁴ As a result of the larger population, hunting of Arctic fox is allowed on Svalbard even though it is prohibited on the mainland.²³⁵⁵ While Arctic foxes and reindeer have healthy populations on the archipelago, the vole is found only on the south side of Isfjorden.²³⁵⁶ The sibling vole was accidentally introduced to Svalbard in hay bales imported by the Russians sometime prior to 1960.²³⁵⁷ They are the only small mammals on Svalbard and are usually about 10-16cm in length and covered in greyish brown fur.²³⁵⁸ There is a stable population which breeds annually on the islands but it is restricted to a single population which is located within 20km of the now abandoned Russian mining village of Grumont.²³⁵⁹

Although there are very few terrestrial mammals, there are a number of marine mammals which are found in the waters around Svalbard. The five species of ice seal found in Svalbard are the ringed seal, harbour seal, bearded seal, hooded seal and harp seal, with the small ring seal being the most common.²³⁶⁰ Narwhal are found in the fjords around Nordauslandet and walrus haul out on the islands and sea ice to give birth, feed young, rest and to avoid predators.²³⁶¹ The waters of Svalbard are also home to a number of whales including the Spitsbergen population of bowhead whale, one of the few marine mammals

²³⁵¹ Åshild Ønvik Pedersen, 'Svalbard Reindeer (*Rangifer Tarandus Platyrhynchus*)' (*Norwegian Polar Institute*) <<http://www.npolar.no/en/species/svalbard-reindeer.html>> accessed 5 November 2018.

²³⁵² *ibid.*

²³⁵³ *ibid*; Chester (n 24) 58.

²³⁵⁴ *Protected Areas in Svalbard* (n 2350) 9.

²³⁵⁵ 'Animals on Svalbard' (*Svalbard Sysselmannen*) <<http://www.sysselmannen.no/en/Toppmeny/About-Svalbard/Animals/>> accessed 14 September 2018.

²³⁵⁶ *Protected Areas in Svalbard* (n 2350) 9; Eva Fuglei, 'Sibling Vole (*Microtus Levis*)' (*Norwegian Polar Institute*) <<http://www.npolar.no/en/species/sibling-vole.html>> accessed 5 November 2018; Prestrud, Strøm and Goldman (n 2258) 125.

²³⁵⁷ Fuglei (n 2356).

²³⁵⁸ *ibid.*

²³⁵⁹ Prestrud, Strøm and Goldman (n 2258) 125; Fuglei (n 2356).

²³⁶⁰ 'Animals on Svalbard' (n 2355); Prestrud, Strøm and Goldman (n 2258) 125.

²³⁶¹ Chester (n 24) 96–97, 125.

which spends its entire life in the Arctic.²³⁶² The most common whale in Svalbard is the beluga whale or white whale which, as its name suggests, turns completely white in adulthood.²³⁶³ In Svalbard beluga whales stay close to the coastline, even in heavy ice.²³⁶⁴ They are hunted as prey by both polar bears and killer whales.²³⁶⁵ Far rarer is the blue whale, the largest of the whale species but sightings have been reported, particularly in recent years.²³⁶⁶ Svalbard is also home to a large population of polar bears which migrate between Svalbard and Russia, across the Barents Sea.²³⁶⁷ There are thought to be between two and three thousand bears in the region, about half of which den in the eastern part of Svalbard particularly on Nordauslandet and nearby islands.²³⁶⁸ Polar bears are highly protected on Svalbard.²³⁶⁹

During the summer, Svalbard is home to migrating birds which arrive from the south in vast numbers.²³⁷⁰ It is estimated that there are about 1.5 million Brünnich's guillemots and at least half a million kittiwakes on Svalbard during the summer breeding season, alongside large number of geese and common eiders.²³⁷¹ When the birds return south for the winter, a single land based species and three seabirds are left behind.²³⁷² The Svalbard ptarmigan does not migrate but lives its entire life on Svalbard, developing a bright white plumage in

²³⁶² Kit M Kovacs and Christian Lydersen, 'Bowhead Whale (*Balaena Mysticetus*)' (*Norwegian Polar Institute*) <<http://www.npolar.no/en/species/bowhead-whale.html>> accessed 5 November 2018.

²³⁶³ Kit M Kovacs and Christian Lydersen, 'White Whale (*Delphinapterus Leucas*)' (*Norwegian Polar Institute*) <<http://www.npolar.no/en/species/white-whale.html>> accessed 6 November 2018; Chester (n 24) 124.

²³⁶⁴ Kovacs and Lydersen, 'White Whale (*Delphinapterus Leucas*)' (n 2363).

²³⁶⁵ *ibid.*

²³⁶⁶ Kit M Kovacs and Christian Lydersen, 'Blue Whale (*Balaenoptera Musculus*)' (*Norwegian Polar Institute*) <<http://www.npolar.no/en/species/blue-whale.html>> accessed 5 November 2018.

²³⁶⁷ Jon Aars and Dag Vongraven, 'Polar Bear (*Ursus Maritimus*)' (*Norwegian Polar Institute*) <<http://www.npolar.no/en/species/polar-bear.html>> accessed 7 November 2018; December 23 2015, 'Polar Bears in Svalbard in Good Condition – So Far' (*Norwegian Polar Institute*) <<http://www.npolar.no/en/news/2015/12-23-counting-of-polar-bears-in-svalbard.html>> accessed 7 November 2018.

²³⁶⁸ Aars and Vongraven (n 2367); December 23 2015 (n 2367).

²³⁶⁹ Aars and Vongraven (n 2367); December 23 2015 (n 2367).

²³⁷⁰ Lydersen, Steen and Alsos (n 2226) 122.

²³⁷¹ *ibid.*

²³⁷² 'Animals on Svalbard' (n 2355).

the winter to camouflage it against the snow.²³⁷³ At sea, the three species which winter in Svalbard are the black guillemot, the common eider and the long-tailed duck.²³⁷⁴

The Svalbard food web is entirely reliant on the presence of the summer population of birds as the birds fertilise the ground which then allows the plants on which other animals feed to grow.²³⁷⁵ Plants common on Svalbard include species of buttercup, sedge, saxifrage and whitlow-grass.²³⁷⁶ Svalbard is so far north of the Arctic circle that, unlike on mainland Norway, there are no trees or shrubs and all plants are low, creeping varieties.²³⁷⁷ Despite this, there is a high level of biodiversity with hundreds of species of grasses, mosses, lichens and fungi.²³⁷⁸ Plants on Svalbard grow slowly as a result of the short summer growing season and the low summer temperatures.²³⁷⁹ Growth rate is also affected by high levels of grazing by Svalbard reindeer, Svalbard ptarmigan and various species of goose.²³⁸⁰ In the winter, the archipelago is completely dark and is covered in ice and snow so there is very little vegetation; parts of the archipelago are a polar desert and in these locations there are few species of flora, even in the summer.²³⁸¹

D.3.3. Jan Mayen

On Jan Mayen, the main species are birdlife and marine animals.²³⁸² The land, as described above, is fairly barren with few species of flora aside from the mosses and lichens which grow on the volcanic rocks in some parts of the island.²³⁸³ There are no mammals found on land although, prior to the advent of trapping in the early twentieth century, both blue and white Arctic foxes were common.²³⁸⁴

²³⁷³ *ibid*; Eva Fuglei and Åshild Ønvik Pedersen, 'Svalbard Rock Ptarmigan (*Lagopus Muta Hyperborea*)' (*Norwegian Polar Institute*) <<http://www.npolar.no/en/species/svalbard-rock-ptarmigan.html>> accessed 6 November 2018.

²³⁷⁴ 'Svalbard's Wildlife - The Cruise Handbook for Svalbard' <<http://cruise-handbook.npolar.no/en/svalbard/wildlife.html>> accessed 5 November 2018.

²³⁷⁵ Lydersen, Steen and Alsos (n 2226) 122.

²³⁷⁶ *ibid* 123.

²³⁷⁷ 'Vegetation on Svalbard' (*Norwegian Polar Institute*) <<http://www.npolar.no/en/themes/biodiversity/land/vegetation/>> accessed 23 August 2018.

²³⁷⁸ *ibid*; Lydersen, Steen and Alsos (n 2226) 123.

²³⁷⁹ 'Vegetation on Svalbard' (n 2377).

²³⁸⁰ *ibid*.

²³⁸¹ Lydersen, Steen and Alsos (n 2226) 121, 123.

²³⁸² 'Jan Mayen Information' (n 353).

²³⁸³ *ibid*.

²³⁸⁴ *ibid*.

While there are no terrestrial mammals, there are large numbers of marine mammals on Jan Mayen. Hooded and harp seals breed on the ice to the north west of the island but in some years choose to breed on the north western shores instead of on the ice.²³⁸⁵ Harp seals are not currently considered to be endangered but hooded seals are listed as endangered on the Red List for Svalbard and vulnerable on the global IUCN red list.²³⁸⁶ Polar bears used to arrive on the island on drift ice from Greenland but with the reduction in ice reaching Jan Mayen, no polar bears have been sighted recently.²³⁸⁷

Up to 27 bird species, mostly seabirds, use Jan Mayen as a nesting place and at least 98 species have been recorded or sighted, often by the crew of the meteorological station.²³⁸⁸ Seabird species which nest on the island include the northern fulmar, the black-legged kittiwake, the Brünnich's guillemot and the little auk.²³⁸⁹ The northern fulmar and the Brünnich's guillemot are both red listed as threatened species on the Norwegian Red List and the black-legged kittiwake is considered to be vulnerable according to the IUCN.²³⁹⁰

Species of terrestrial birds found on Jan Mayen include the snow bunting and purple sandpiper.²³⁹¹ For the birds which come to Jan Mayen but do not nest, many use the island as a resting point during their migration further north or when returning south for the winter.²³⁹² Such birds include the ringed plover and the dunlin.²³⁹³ Other species end up on Jan Mayen when they get lost from their own migration routes although many of these species are unable to survive the cold and harsh conditions.²³⁹⁴

²³⁸⁵ 'Jan Mayen' (Norwegian Polar Institute) <<http://www.npolar.no/en/the-arctic/jan-mayen/>> accessed 11 September 2018.

²³⁸⁶ Per Fauchald and others, *An Assessment of Miljøovervåking Svalbard Og Jan Mayen: The State of the Marine Environment Around Svalbard and Jan Mayen* (Norsk Polarinstitut 2014) 34.

²³⁸⁷ 'Jan Mayen Information' (n 353).

²³⁸⁸ Geir Gabrielsen and Hallvard Strøm, 'Seabird Research and Monitoring on Jan Mayen' in Stig Skreslet (ed), *Jan Mayen Island in Scientific Focus* (Kluwer Academic Publishers 2004) 183.

²³⁸⁹ *ibid.*

²³⁹⁰ *Norwegian Red List of Species* (n 309); 'IUCN Listed Species - Svalbard and Jan Mayen' <<http://www.iucnredlist.org/search>> accessed 11 September 2018.

²³⁹¹ Gabrielsen and Strøm (n 2388) 184.

²³⁹² *ibid* 183–184.

²³⁹³ *ibid* 184.

²³⁹⁴ *ibid.*

D.4. Species Protection

D.4.1. Norway

The Norwegian approach to environmental protection is based on ‘the principle of integration’, meaning that environmental considerations are embedded in all types of regulation and legislation, regardless of the sector so that consideration for the environment is considered in all activities and at all levels.²³⁹⁵

As Norway is not a member of the European Union and species conservation is not a matter covered under the EEA agreement, Norway is not subject to the Habitats Directive or the Wild Birds Directive of the European Union.²³⁹⁶

D.4.1.1. Norwegian Red List

The Norwegian Biodiversity Information Centre produces the Norwegian Red List, a list of all threatened species found in Norway.²³⁹⁷ The list is compiled in a similar way to the International Union for the Conservation of Nature although the two lists are not identical in their findings.²³⁹⁸ The first red list was published in 1998 and the first one to employ the criteria of the International Union for the Conservation of Nature was produced in 2006.²³⁹⁹ The most recent edition was published in 2015.²⁴⁰⁰

The red list is prepared by a committee of experts appointed by the Norwegian Biodiversity Information Centre.²⁴⁰¹ The Centre has the final say on whether or not a particular species should be included in the list and what level of threat should be assigned to each species but it makes this decision following the advice of the expert committees.²⁴⁰² There are 24 expert committees with a total membership of 90 experts drawn from universities, scientific organisations and individuals with particular expertise.²⁴⁰³ The committees assess each species based on criteria set by the International Union for the Conservation of Nature

²³⁹⁵ Bugge (n 261) 187.

²³⁹⁶ *ibid* 188.

²³⁹⁷ *Norwegian Red List of Species* (n 309).

²³⁹⁸ *ibid*; ‘IUCN Red List versus the Norwegian Red List’ <<https://www.biodiversity.no/Pages/166808>> accessed 11 September 2018.

²³⁹⁹ Einar Jørstad and Ketil Skogen, ‘The Norwegian Red List Between Science and Policy’ (2010) 13 *Environmental Science & Policy* 115, 115.

²⁴⁰⁰ *Norwegian Red List of Species* (n 309).

²⁴⁰¹ Henriksen and Hilmo (n 310) 6.

²⁴⁰² *ibid*.

²⁴⁰³ *ibid* 14.

which include considerations such as whether there has been a substantial reduction in the population size, the geographical spread of the population, whether the population is fragmented and any quantitative data available to predict the risk of extinction such as ‘known life history, habitat requirements, threats and any specified management options’.²⁴⁰⁴ The criteria from the International Union for the Conservation of Nature provides objective standards against which each species can be assessed and assigned an appropriate category. For instance, a species with a population decrease of $\geq 80\%$ over 10 years (or three generations) would be considered to be critically endangered.²⁴⁰⁵ The committees will only assess species which are considered to be native to Norway; where a species arrived in Norway after 1800 as a result of human intervention then it will not be assessed.²⁴⁰⁶

Species that are included on the Red List are those which are extinct within Norway or are at risk of extinction.²⁴⁰⁷ Some species are listed because they are rare within Norway but most are included on the list because their population numbers are declining.²⁴⁰⁸ Each species which is entered onto the list is assigned a category which indicates the level of threat to that species. Where a species is already extinct, it will be listed as Regionally Extinct.²⁴⁰⁹ This means that while the species used to exist within Norway, it no longer does; the populations of the species which exist in other parts of the world are not relevant so the species may not be extinct worldwide.²⁴¹⁰ Species which are at risk of extinction are split into three categories, Critically Endangered, Endangered and Vulnerable.²⁴¹¹ Species within any one of these three categories is considered to be threatened.²⁴¹² Below this, species can be categorised as Near Threatened or as Least Concern.²⁴¹³ If a species is listed as Least Concern then it will have a viable population with no known threats.²⁴¹⁴ It may

²⁴⁰⁴ *ibid*; *IUCN Red List Categories and Criteria* (Version 3.1, 2nd edition, International Union for Conservation of Nature 2012) 13.

²⁴⁰⁵ *IUCN Red List Categories and Criteria* (n 2404) 16.

²⁴⁰⁶ Henriksen and Hilmo (n 310) 12.

²⁴⁰⁷ *ibid* 8.

²⁴⁰⁸ *ibid*.

²⁴⁰⁹ *ibid* 14.

²⁴¹⁰ *ibid*.

²⁴¹¹ *ibid*.

²⁴¹² *ibid*.

²⁴¹³ *ibid*.

²⁴¹⁴ ‘Norwegian Red List for Species’ <<https://www.biodiversity.no/Pages/135380>> accessed 27 October 2018.

be that there is insufficient data on which the committee can base its decision, in which case the species will be listed as Data Deficient.²⁴¹⁵

Inclusion on the Red List does not bring with it any protection for a threatened species; there is no direct link between the Red List and the species protection provisions of the Nature Diversity Act.²⁴¹⁶ Instead, the Red List provides decision makers at local and national level with the information which they need to make informed decisions regarding the protection and management of the species on the list.²⁴¹⁷

Of the estimated 44,000 species found in Norway, about half have been assessed for inclusion on the red list.²⁴¹⁸ Out of the assessed species, 4,438 have been placed on the red list with 2,355 listed as threatened.²⁴¹⁹ There are 241 critically endangered species, 879 endangered species and 1,235 vulnerable species.²⁴²⁰ The Arctic region of Norway has the fewest threatened species, with only 215 threatened species in Troms and 239 in Finnmark, partly because biodiversity is much lower in the Arctic than in the south of Norway and partly because there is less pressure from humans in the more sparsely populated north.²⁴²¹ Examples of Arctic species which are included on the list are the Arctic fox (critically endangered), ringed seal (vulnerable), bowhead whale (critically endangered), blue whale (vulnerable), narwhal (endangered), common guillemot (vulnerable), lesser white goose (critically endangered) and a critically endangered grass, the *Arctophila fulva*.²⁴²²

A separate red list assessment is carried out for Svalbard.²⁴²³ Of the 487 species assessed, 103 have been placed on the red list, although most of these are plants and lichens such as the critically endangered rock sandwort and cloudberry and the endangered polar bilberry.²⁴²⁴ The Svalbard red list contains three mammals and 18 birds.²⁴²⁵ The three

²⁴¹⁵ Henriksen and Hilmo (n 310) 14.

²⁴¹⁶ *ibid* 6; Nature Diversity Act.

²⁴¹⁷ Henriksen and Hilmo (n 310) 6.

²⁴¹⁸ *ibid* 16.

²⁴¹⁹ *ibid*.

²⁴²⁰ *ibid*.

²⁴²¹ *ibid* 21.

²⁴²² *Norwegian Red List of Species* (n 309).

²⁴²³ Henriksen and Hilmo (n 310) 9.

²⁴²⁴ *ibid*; *Norwegian Red List of Species* (n 309); 'Redlist - The Flora of Svalbard' <<http://svalbardflora.no/index.php?id=268>> accessed 29 October 2018.

²⁴²⁵ Henriksen and Hilmo (n 310) 9.

mammals are the polar bear, the walrus and the harbour seal, all of which are listed as vulnerable, and the birds include species such as the razorbill, European golden plover and the red knot, all of which are listed as endangered.²⁴²⁶ There are differences between the red list on the mainland and the red list for Svalbard, one example being the Arctic fox which is listed as critically endangered in mainland Norway but is listed as of least concern on Svalbard.²⁴²⁷

D.4.1.2. Nature Diversity Act 2009

The main act which regulates the protection of species in Norway is the Nature Diversity Act of 2009 which replaced the Nature Protection Act of 1970.²⁴²⁸ The new act introduced additional protections for priority species as well as expanding the way in which habitat was protected in Norway.²⁴²⁹ The act has a broad remit as it covers both species and habitat protection and management.²⁴³⁰ In relation to species protection, the act is supported by other acts including the Wildlife Act of 1981 which sets out the rules on hunting, the Marine Resources Act of 2008 which covers marine species and the Salmonid and Freshwater Fish Act of 1992 which ensures the management of freshwater fisheries.²⁴³¹

D.4.1.2.1. General Principles

In its opening sections, the Nature Diversity Act sets out a number of general principles, under which biodiversity is managed in Norway. These explain the purpose of the act and explain the principles by which administrative decisions made under the provisions of the act will be governed. The overall purpose of the Nature Diversity Act is:

‘to protect biological, geological and landscape diversity and ecological processes through conservation and sustainable use, and in such a way that the environment provides a basis for human activity, culture, health and well-being, now and in the future, including a basis for Sami culture.’²⁴³²

²⁴²⁶ *Norwegian Red List of Species* (n 309); ‘Norsk Røddliste for Arter 2015’ <<https://artsdatabanken.no/Rodliste>> accessed 29 October 2018.

²⁴²⁷ *Norwegian Red List of Species* (n 309).

²⁴²⁸ Nature Diversity Act; Nature Protection Act 1970.

²⁴²⁹ Nature Diversity Act; Bugge (n 261) 189.

²⁴³⁰ Nature Diversity Act.

²⁴³¹ Wildlife Act 1981; Act of 15 May 1992 No 47 on Salmonid and Freshwater Fish; Marine Resources Act 2008.

²⁴³² Nature Diversity Act s 1.

As such, the act is not merely about nature preservation; it both allows and even encourages, the sustainable use of biodiversity for humans, and particularly for the indigenous populations of Norway which have lived on the land for generations. The aim is to protect the natural environment but in a way which balances conservation with economic, social and cultural uses.²⁴³³ Section 14 of the act expands on this idea. It states that ‘[m]easures under this act shall be weighed against other important public interests’, thereby introducing a means by which economic and social considerations can be taken into account in all provisions under the act, including species protection.²⁴³⁴ This is quite different from the USA and Canada where their equivalent measures are clear about where it is appropriate for economic factors, in particular, to be considered, and where only scientific evidence is deemed to be relevant.²⁴³⁵ In Norway, all measures relating to species protection can be balanced with ‘other important public interests’, although those public interests are not defined.²⁴³⁶ Section 14 also reiterates the importance of considering ‘the natural resource base for Sámi culture’ when taking decisions under the act which will impact on the interests of the Sámi people, such as on reindeer herding and other traditional activities.²⁴³⁷

The act provides for a general duty of care in relation to the natural environment. Section 6 states that ‘[a]ny person shall act with care and take all reasonable steps to avoid causing damage to biological, geological and landscape diversity’.²⁴³⁸ The previous two sections set out the management objectives for both species and habitats and the duty of care requires all persons to avoid damage which would be contrary to those objectives.²⁴³⁹ The duty of care applies all people, corporate bodies, organisations and public servants, including ordinary citizens acting in their private capacity.²⁴⁴⁰ It applies in all situations, not merely those requiring a permit or other environmental consent although the act specifies that the duty of care will be considered to be discharged where a person has complied with any permit conditions.²⁴⁴¹

²⁴³³ Bugge (n 261) 189.

²⁴³⁴ Nature Diversity Act s 14.

²⁴³⁵ Endangered Species Act 1973 §1533(b)(1)(A); Species at Risk Act 2002 s 15(2).

²⁴³⁶ Nature Diversity Act s 14.

²⁴³⁷ *ibid.*

²⁴³⁸ *ibid* 6.

²⁴³⁹ *ibid* 4–6.

²⁴⁴⁰ *ibid* 6.

²⁴⁴¹ *ibid.*

Sections 8 to 12 set out the general principles on which decisions made under the act by public authorities should be based.²⁴⁴² They also provide guidelines for public bodies awarding grant money or for government departments dealing with real property.²⁴⁴³ The first is that decisions should, ‘as far as is reasonable, be based on scientific knowledge of the population status of species, the range and ecological status of habitat types, and the impacts of environmental pressures’.²⁴⁴⁴ The act does not define the term scientific knowledge but Bugge argues that it ‘implies that the knowledge must be objective, based on proper scientific methods and possible to verify’.²⁴⁴⁵ Certainly, it would be difficult to argue that data not collected using accepted scientific methods could be classed as ‘scientific knowledge’. The act requires that the level of scientific knowledge required is ‘in reasonable proportion to the nature of the case and the risk of damage’ with the greater the risk of damage, the higher the level of scientific knowledge required.²⁴⁴⁶ As well as modern ideas of scientific data, the act requires decision makers to take into account ‘knowledge that is based on many generations of experience acquired through the use of and interaction with the natural environment’.²⁴⁴⁷ This type of knowledge, gathered and passed down through families, is particularly important for Sami people and can provide insights and solutions from those whose culture is deeply entwined with the protection of the land.²⁴⁴⁸ The act acknowledges that Sami and other local people have experience which will promote both conservation and sustainable use of resources and requires that decision makers take such knowledge into account in reaching decisions.²⁴⁴⁹

Section 9 introduces the precautionary principle into all decisions made under the Nature Diversity Act.²⁴⁵⁰ In 1990, then Norwegian Prime Minister, Jan Syse, explained that the precautionary principle meant that ‘where uncertainty still exists we must give the environment the benefit of the doubt’.²⁴⁵¹ While it is preferable for decisions to be made

²⁴⁴² *ibid* 7.

²⁴⁴³ *ibid*.

²⁴⁴⁴ *ibid* 8.

²⁴⁴⁵ Bugge (n 261) 191.

²⁴⁴⁶ Nature Diversity Act s 8.

²⁴⁴⁷ *ibid*.

²⁴⁴⁸ *ibid*.

²⁴⁴⁹ *ibid*.

²⁴⁵⁰ *ibid* 9.

²⁴⁵¹ James Cameron and Juli Abouchar, ‘The Precautionary Principle: A Fundamental Principle of Law and Policy for the Protection of the Global Environment’ (1991) 14 *Boston College International and Comparative Law Review* 1, 1.

with all of the scientific data required to reach an appropriate decision, particularly data on the ‘impacts [the decision] may have on the natural environment’, sometimes that data is not available.²⁴⁵² In such cases, the act requires decision makers to ‘avoid possible significant damage to biological, geological or landscape diversity’ in reaching their decision.²⁴⁵³ This is known as the ‘defensive’ meaning of the precautionary principle as it prevents decisions being made which would harm the environment.²⁴⁵⁴ The ‘offensive’ meaning of the precautionary principle is included in the second half of the section which states that in situations where there is a ‘risk of serious or irreversible damage’ to the environment, ‘lack of knowledge shall not be used as a reason for postponing or not introducing management measures’.²⁴⁵⁵ This means that where there is a risk of significant environmental harm, the decision maker is obligated to introduce protective measures even if the scientific data confirming the risk is not yet available.

The other principles of environmental law which influence the rest of the Nature Diversity Act, include the principle that decision makers should use an ecosystem based approach rather than viewing each species or habitat independently, that the cumulative impact on the environment should be considered, that the cost of avoiding or reducing environmental damage should be met by the project owner (unless it would be unreasonable to expect this) and that environmentally sound techniques and methods should be used and operations should be sited in such a way as to ‘produce the best results for society at large’.²⁴⁵⁶ Together these principles provide a framework for the implementation of the act and ensure that decisions made under the act are made in accordance to the environmental legal paradigms considered to be important in Norway. As discussed above, the principles are somewhat tempered by section 14, which allows for the balance on environmental factors with ‘other important public interests’ when decisions are made regarding measures taken under the act.²⁴⁵⁷

²⁴⁵² Nature Diversity Act s 9.

²⁴⁵³ *ibid.*

²⁴⁵⁴ Bugge (n 261) 192.

²⁴⁵⁵ Nature Diversity Act s 9.

²⁴⁵⁶ *ibid* 10–12.

²⁴⁵⁷ *ibid* 14.

D.4.1.2.2. Rules on Species Management

Section 5 explains the objective in relation to species management under the act.²⁴⁵⁸ The aim is to ‘maintain species and their genetic diversity for the long term and to ensure that species occur in viable populations in their natural ranges’.²⁴⁵⁹ Where, in order to achieve this aim, it is necessary to protect ‘areas with specific ecological functions’ then those areas will also be maintained.²⁴⁶⁰ The objective applies only to species which naturally occur in Norway and not to ‘alien organisms’.²⁴⁶¹ It also applies only to wild animals; in relation to domesticated species, such as reindeer, the objective is to manage the species ‘in such a way that it helps to secure the future resource base’.²⁴⁶²

D.4.1.2.2.1. Animals

The basic principle in Norway is that wild animals are *res nullius*, in that they belong to no one unless and until they are collected from the wild.²⁴⁶³ The act sets out a general protection of all wild animals, stating that they may only be harvested or removed from their natural environment when that removal is authorised by law (either by statute or a decision taken under statutory authority).²⁴⁶⁴ Harvesting, in relation to animals, is defined as ‘hunting’ or ‘trapping’ whether for ‘recreational’ or ‘commercial purposes’, and removal is defined as ‘any form of killing or extraction of entire or parts of organisms from the natural environment, regardless of its purpose’.²⁴⁶⁵ It is therefore unlawful to hunt, trap, kill or extract from its natural environment any species of wild animal unless there is lawful provision for that activity, usually in the form of permission to hunt or catch the species granted under the Wildlife Act or the Marine Resources Act.²⁴⁶⁶ Where authority is granted to harvest or remove a wild animal, the act prohibits actions which would cause ‘unnecessary harm and suffering’ either to the animals themselves or to their ‘nests, lairs and burrows’.²⁴⁶⁷

²⁴⁵⁸ *ibid* 5.

²⁴⁵⁹ *ibid*.

²⁴⁶⁰ *ibid*.

²⁴⁶¹ *ibid*.

²⁴⁶² *ibid*.

²⁴⁶³ Bugge (n 261) 206.

²⁴⁶⁴ Nature Diversity Act s 15.

²⁴⁶⁵ *ibid* 3(g), (o).

²⁴⁶⁶ *ibid* 15; Wildlife Act 1981; Marine Resources Act 2008.

²⁴⁶⁷ Nature Diversity Act s 15.

There are some exceptions to the general protection for wild animals. Section 17 allows the killing of rodents, reptiles and fish where there is a risk of injury to people or a risk of property damage.²⁴⁶⁸ This is fairly uncontroversial as it allows for the removal of pests such as mice and rats. For wildlife species including mammals, birds, reptiles and amphibians, only an ‘immediate and significant risk of injury to persons’ or a ‘direct attack on livestock or domesticated reindeer’ is sufficient to allow for the killing of the individual.²⁴⁶⁹ Where such a killing takes place, the incident must be reported to the police immediately.²⁴⁷⁰ There has been much controversy over the protections for large predators granted by the Nature Diversity Act. There are four large predators found in mainland Norway, brown bear, lynx, wolf and wolverine.²⁴⁷¹ Of these, all but the wolf are found in the Arctic regions of Norway.²⁴⁷² Across the country, there are about 350 lynx, 350 wolverine and around 137 brown bears, all of which pose a threat to livestock and domesticated reindeer, leading to conflict between farmers and supporters of wildlife protection.²⁴⁷³ For example, on 10 August 2018, 16 sheep were killed by wolverine in the Storfjord region of Troms and a week later, a bear killed a sheep in Hattfjelldal, Nordland.²⁴⁷⁴ Reindeer are also at risk; on 25 March 2018, a reindeer was killed by a lynx in Tana, Finnmark, one of up to 3000 deaths of reindeer caused by lynx in Arctic Norway each year with a similar number of deaths caused by wolverine, including on 12 April 2018 at Rana, Nordland.²⁴⁷⁵ The threat of large predators to livestock has led to farmers and reindeer herders (supported by the agrarian political party, Senterpartiet) to call for policies

²⁴⁶⁸ *ibid* 17.

²⁴⁶⁹ *ibid*.

²⁴⁷⁰ *ibid*.

²⁴⁷¹ ‘Miljødirektoratet’ (*Rovbase.no*) <<http://www.rovbase.no>> accessed 24 August 2018; Ragnhild Sollund, ‘With or Without a Licence to Kill: Human-Predator Conflicts and Theriocide in Norway’ in Avi Brisman, Nigel South and Rob White (eds), *Environmental Crime and Social Conflict: Contemporary and Emerging Issues* (Routledge 2015) 4; Rosie Woodroffe, Simon Thirgood and Alan Rabinowitz, *People and Wildlife, Conflict or Co-Existence?* (Cambridge University Press 2005) 323.

²⁴⁷² ‘Brown Bear’ <<http://www.miljostatus.no/topics/biodiversity/species-in-norway/large-carnivores/brown-bear/>> accessed 23 August 2018; ‘Wolf’ <<http://www.miljostatus.no/topics/biodiversity/species-in-norway/large-carnivores/wolf/>> accessed 23 August 2018; ‘Wolverine’ <<http://www.miljostatus.no/topics/biodiversity/species-in-norway/large-carnivores/wolverine/>> accessed 23 August 2018; ‘Lynx’ <<http://www.miljostatus.no/topics/biodiversity/species-in-norway/large-carnivores/lynx/>> accessed 23 August 2018.

²⁴⁷³ Sollund (n 2471) 4; Woodroffe, Thirgood and Rabinowitz (n 2471) 325.

²⁴⁷⁴ ‘Miljødirektoratet’ (n 2471).

²⁴⁷⁵ *ibid*; ‘Reindeer Taken by Predators, Compensation Applied for and Granted, by Area, Predator, Contents and Interval (Year). Statbank Norway’ <<https://www.ssb.no/en/statbank/table/07688/tableViewLayout1/?rxid=e6d165a6-51ff-4b4b-965a-6a06f06e2d50>> accessed 24 August 2018.

which give priority to farming, hunting and harvesting over predator protection.²⁴⁷⁶ In 2010, in response to these calls, the protections on predators were relaxed.²⁴⁷⁷ Under section 17, the King, acting by his government, has the power to authorise regulations allowing for the killing of bear, lynx or wolverine where there is an immediate threat to livestock but no direct attack.²⁴⁷⁸ Such regulations are only allowed where the population of the predator has been greater than the target over a period of time.²⁴⁷⁹ A further change means that owners of livestock or dogs which have been placed within special fencing may kill predators which are threatening to cause a ‘significant risk of damage’ to those animals.²⁴⁸⁰

There are other situations where removal or harvesting of wild animals is allowed. Section 16 states that all decisions on hunting should be made under the Wildlife Act but that harvesting of species is only allowed ‘when the best available documentation indicates that the species produces a harvestable surplus’ and where consideration has been given to the role played by the species within the ecosystem in which it is found.²⁴⁸¹ The importance of the species for food, recreation and traditional harvest in the area should also be taken into account when reaching a decision on permitting harvesting, as should the risk that the species may cause damage.²⁴⁸² Regulations and ‘individual decisions’ may be made by the government to allow the removal, either by killing or extraction of wildlife in specified situations such as, *inter alia*, for academic research purposes, for the protection of ‘naturally occurring plants, animals and ecosystems’, to prevent damage to ‘crops, livestock, domesticated reindeer, forest, fish, water or other property’, where the species is an ‘alien organism’, for health and safety reasons and for ‘lawful breeding and farming’.²⁴⁸³ The removal of the species may only take place where it would not threaten the survival of the species and there must be no other means by which the lawful purpose can be achieved.²⁴⁸⁴

²⁴⁷⁶ Sollund (n 2471) 3.

²⁴⁷⁷ Act of 17 September No 57 2010 Relating to Amendments to the Nature Diversity Act, Wildlife Act (Lov om Endringer i Naturmangfoldloven, Viltloven).

²⁴⁷⁸ Nature Diversity Act s 17.

²⁴⁷⁹ *ibid*.

²⁴⁸⁰ *ibid* 17a.

²⁴⁸¹ *ibid* 16.

²⁴⁸² *ibid*.

²⁴⁸³ *ibid* 18.

²⁴⁸⁴ *ibid*.

D.4.1.2.2.2. Plants, Fungi and Invertebrates

In relation to plants and fungi, the general protection in place for animals under the Nature Diversity Act does not apply. Plants and fungi may be harvested or removed as long as doing so would not 'jeopardise the survival of the population' and there is no other prohibition on the collection of the species.²⁴⁸⁵ For plants and fungi, the term 'harvest' is defined as the 'collection of plants or parts of plants (including berries and fruits) and fungi, for recreational and commercial purposes' and removal is defined in the same way as for animals.²⁴⁸⁶ In addition to this, section 400 of the General Penal Code provides all people may collect 'wild flowers, berries and mushrooms' from 'an unfenced place', usually open countryside or mountainous areas.²⁴⁸⁷ There is an exception for the 'cloudberry fields in the diocese of Tromsø' where any cloudberries must either be collected with the permission of the landowner or must be consumed immediately.²⁴⁸⁸ Where a plant or fungi poses a threat to the health of people or animals then it may be removed, likewise if it will damage 'crops, forest or other property' or is a threat to 'important public interests'.²⁴⁸⁹ Non-native species of plant or fungi may also be removed.²⁴⁹⁰ Invertebrates may, unless they are otherwise protected, be killed where they are a nuisance, they cause damage or they are an alien species and may be removed provided this does not threaten the population within the local area.²⁴⁹¹

There are some protected plants and invertebrates. The Regulations on the Conservation of Endangered Species 2001, made under the authority of the Nature Protection Act of 1970, list 57 plant and invertebrate species which are considered to be endangered or threatened.²⁴⁹² Any species listed in the annex to the regulations is 'protected from direct damage and destruction, collection and other direct pursuit' meaning that they cannot be picked, harmed or destroyed.²⁴⁹³ Among the 57 protected species, most of which are not

²⁴⁸⁵ *ibid* 15.

²⁴⁸⁶ *ibid* 3(g).

²⁴⁸⁷ Act of 22 May 1902 No 10 General Penal Code (as amended) s 400; Bugge (n 261) 207.

²⁴⁸⁸ General Penal Code 1902 s 400.

²⁴⁸⁹ Nature Diversity Act s 21.

²⁴⁹⁰ *ibid*.

²⁴⁹¹ *ibid* 20.

²⁴⁹² Conservation of Endangered Species Regulations 2001.

²⁴⁹³ *ibid* 2.

Arctic species, is the *polemonium boreale*, a purple flower native to the high Arctic found on Svalbard.²⁴⁹⁴

D.4.1.2.3. Priority Species

Until the implementation of the Nature Diversity Act in 2009, the protections listed above were the only protections available for species. Additional protections could be introduced in specific areas where there was a protected habitat but there were no specific protections for endangered species.²⁴⁹⁵ Sections 23 and 24 of the Nature Diversity Act introduced the concept of ‘priority species’ and allowed for the making of regulations to protect such species.²⁴⁹⁶

A priority species is one which is designated as such by the Norwegian government on the basis of one of the three possible reasons for designation found in section 23 of the act.²⁴⁹⁷ The first is that that ‘the population status or trend for the species are contrary to’ the objective set out in section 5 of the act, namely that the species, and its genetic diversity, is maintained ‘for the long term’ and that ‘species occur in viable populations in their natural ranges’.²⁴⁹⁸ When there is ‘documentation...based on scientific criteria’ that this reason for designation may exist, the ministry with responsibility for the species ‘shall consider’ whether that species should be designated. They may do this either on their own initiative or following a request to consider the matter made by ‘an organisation or other persons with legal interests in the matter’.²⁴⁹⁹ The ministry only has to consider designating the species and is under no obligation to designate any particular species, regardless of the evidence about the status of the species.²⁵⁰⁰ The second reason for designation of a species as a priority species is that the species’ global distribution is predominantly found in Norway or the population within Norway is genetically distinctive.²⁵⁰¹ The third is that Norway has international obligations to protect the species.²⁵⁰²

²⁴⁹⁴ Conservaion of Endangered Species Regulations 2001; ‘Polemonium Boreale - The Flora of Svalbard’ <<http://svalbardflora.no/index.php?id=713>> accessed 23 August 2018.

²⁴⁹⁵ Bugge (n 261) 210.

²⁴⁹⁶ Nature Diversity Act ss 23, 24.

²⁴⁹⁷ *ibid* 23.

²⁴⁹⁸ *ibid* 5, 23(a).

²⁴⁹⁹ *ibid* 23.

²⁵⁰⁰ Bugge (n 261) 210–211.

²⁵⁰¹ Nature Diversity Act s 23(b).

²⁵⁰² *ibid* 23(c).

Once a species has been designated as a priority species, the government may make regulations for the purpose of protecting that species. The regulations are specific to the protection of that individual species which allows for measures directly dealing with the threats facing the particular species. Section 24 allows regulations which may ‘prohibit any form of removal of, damage to or destruction of a priority species or specific populations of the species’, even when other parts of the Nature Diversity Act would allow removal in certain circumstances and may protect a particular area which has ‘specific ecological functions for the species’ such as where the species feeds, moults, overnights, breeds, winters, migrates, or otherwise uses.²⁵⁰³ However, in relation to provisions protecting habitats, where any restrictions will make the land ‘substantially more difficult’ to use or will lead to a ‘substantial loss’ then the landowner can either request that the land be protected as habitat under chapter V of the act (such as by making it a Protected Landscape or Habitat Management Area) or that an exemption be granted for that land where it would not lead to a ‘deterioration of the species’ population status’.²⁵⁰⁴ The ministry may also make regulations which stipulate that any works which are planned to take place in an area which provides ‘specific ecological functions’ for a priority species should be ‘assessed and clarified’ with consideration being given to alternative locations for the works, with the aim of ensuring the conservation of the species.²⁵⁰⁵ For all of these regulations, active management of a species may be required in order to ensure conservation and where public grant money is being used, it should be used in such a way as promotes the conservation of priority species.²⁵⁰⁶

While species can be designated whenever there is scientific evidence that the population is not viable in the long term, only 13 species have been designated to date.²⁵⁰⁷ Of these species, four occur in the Arctic, two bird species, the lesser white fronted goose and the northern subspecies of the black-tailed godwit, one animal, the Arctic fox, and one plant, the black vanilla orchid which is predominantly found further south but is found in an isolated area in Nordreisa, Troms county.²⁵⁰⁸ Having been listed as critically endangered

²⁵⁰³ *ibid* 24(a),(b).

²⁵⁰⁴ *ibid* 24.

²⁵⁰⁵ *ibid*.

²⁵⁰⁶ *ibid*.

²⁵⁰⁷ ‘13 Priority Species’ (n 313).

²⁵⁰⁸ ‘Svartkurle’ (*Norske Orkideer*) <https://www.norske-orkideer.no/en_GB/brudespore/svartkurle/> accessed 24 August 2018; ‘13 Priority Species’ (n 313).

in the Norwegian Red List, the Arctic fox was designated as a priority species by regulations issued in 2015.²⁵⁰⁹ The regulations prohibit any removal, damage or destruction of an Arctic fox as well as any destruction of an Arctic fox den.²⁵¹⁰ The regulations also allow the Miljødirektoratet to enter into agreements with landowners with Arctic foxes on their land to manage the land in a way which maintains the natural state necessary for the conservation of the Arctic fox.²⁵¹¹

D.4.1.2.4. Enforcement

The enforcement sections of the Nature Diversity Act apply to breaches to the sections relating to both species protection and habitat protection and to regulations made under both parts of the act. For ease of understanding, and to avoid repetition, the enforcement mechanisms are discussed in full here.

D.4.1.2.4.1. Remedial Measures

Where an act takes place or a situation arises which is contrary to the provisions of the Nature Diversity Act, the competent authority, such as the Kommune, can order the person responsible to cease their actions and to remedy any harm which they have caused.²⁵¹² The act requires that anyone who has ‘caused a risk of reducing biological, geological or landscape diversity’ as a result of a breach of the act, should, in consultation with the competent authority, take measures to ameliorate the risk of harm, prevent any further harm or to restore the area back to the state in which it was naturally found.²⁵¹³ This might include cleaning up after a pollution incident, removing anything which was added unlawfully or levelling ground which had been dug up, where it is reasonable to do so.²⁵¹⁴

In some situations, the impact on the environment might have been unforeseeable and the activities which caused the problem may have been lawful. As a result of the ‘user pays principle’ found in section 11 of the act, a person who carries out an action which causes unexpected environmental impact is supposed to ‘take reasonable measures to prevent or

²⁵⁰⁹ Priority Species Regulations (Arctic Fox) 2015.

²⁵¹⁰ *ibid* 3.

²⁵¹¹ *ibid* 4.

²⁵¹² Nature Diversity Act s 69.

²⁵¹³ *ibid*.

²⁵¹⁴ *ibid*.

limit damage or nuisance' even if what they did was lawful.²⁵¹⁵ The competent authority has the right to order that such measures take place within a reasonable period of time.²⁵¹⁶ They may also order the person responsible to undertake the more onerous task of restoring the land to its natural state where restoration can be achieved 'without particular inconvenience to the person responsible'.²⁵¹⁷ The level of responsibility for ameliorating unintentional harm caused by lawful activities is therefore lower than the level required of those who undertake unlawful activities which impact the environment.

Where a person is ordered to carry out remedial measures but fails to do so, the competent authority may carry out the measures themselves and then claim back the cost from the person who was responsible for carrying out the works in the first place.²⁵¹⁸ Where it is not apparent who should be responsible or where there is an urgent need to undertake remedial measures to protect the environment then the competent authority may decide to bear the expense themselves.²⁵¹⁹

D.4.1.2.4.2. Punishments

When a person breaches the Nature Diversity Act, the competent authority is entitled to impose either a coercive fine or a penal measure or order that environmental compensation be paid.²⁵²⁰ Coercive fines may be imposed at the same time that a competent authority orders a person to take remedial action for actions which have damaged or are damaging the environment.²⁵²¹ The fine will usually be linked to the time in which the competent authority gives to the individual to undertake the measures required and will become payable if this time limit is breached, thereby providing an incentive for the carrying out of the work.²⁵²² The fine can either be a lump sum or a sum payable for each day that the person remains in breach as long as they are not prevented from complying by circumstances beyond their control.²⁵²³ In some situations it may be appropriate for the

²⁵¹⁵ *ibid* 70.

²⁵¹⁶ *ibid*.

²⁵¹⁷ *ibid*.

²⁵¹⁸ *ibid* 71.

²⁵¹⁹ *ibid*.

²⁵²⁰ *ibid* 73–75.

²⁵²¹ *ibid* 73.

²⁵²² *ibid*.

²⁵²³ *ibid*.

fine to be payable alongside measures being taken to ameliorate the environmental harm.²⁵²⁴

For wilful or negligent contravention of certain sections of the act, in particular in relation to species management, sections 15 to 18 and 20-22 as well as the priority species measures under sections 24 and 25, the offender is liable, on conviction, to a fine or to a term of imprisonment of up to one year.²⁵²⁵ Where the offence is considered to be a 'gross contravention' then the punishment can be either a fine or a term of imprisonment of up to three years.²⁵²⁶ Factors which will be taken into account when deciding whether an offence should be considered to be a 'gross contravention' include whether it has caused significant harm to the environment, whether the harm is 'irreversible', the degree of blame to be apportioned on the offender and whether the offender attempted any mitigation to reduce the harm of their actions.²⁵²⁷ Where a larger punishment is warranted for damage caused to a habitat, this can be imposed under the Penal Code which allows for a term of imprisonment of up to six years for offences under the Nature Diversity Act where a habitat is 'considerably damaged', either wilfully or through gross negligence.²⁵²⁸ The Penal Code also allows for companies to be fined for the actions of their employees.²⁵²⁹

In addition to any punishment, the competent authority can order the payment of environmental compensation to be paid for breaches of the provisions of the act or regulations made under the act.²⁵³⁰ The compensation is paid to the state and the amount imposed will be decided after consideration of the value of the environment harmed, the 'extent and duration' of the harm, any other punishment imposed and 'any other circumstances'.²⁵³¹

D.4.1.2.5. Wildlife Act 1981

Alongside the Nature Diversity Act which ensures the protection of wildlife species is the Wildlife Act which authorises hunting, trapping and other harvesting in Norway, its

²⁵²⁴ *ibid.*

²⁵²⁵ *ibid* 75.

²⁵²⁶ *ibid.*

²⁵²⁷ *ibid.*

²⁵²⁸ General Penal Code 1902 s 152b.

²⁵²⁹ *ibid* 48a, 48b.

²⁵³⁰ Nature Diversity Act s 74.

²⁵³¹ *ibid.*

territorial waters and its marine exclusive economic zone.²⁵³² Passed in 1981, the primary purpose of the act is to ensure that wildlife is managed in such a way that the ‘productivity of nature and the diversity of species [is] preserved’.²⁵³³ However, as long as this primary purpose is met, the act allows the harvesting of wildlife for both agriculture and for recreational reasons.²⁵³⁴

The Wildlife Act is a framework act, setting out the basic principles under which the harvesting of wildlife can take place and granting authority to the government and other public bodies to make regulations providing more detail.²⁵³⁵ It applies to all wildlife which it defines as ‘all wild terrestrial mammals and birds, amphibians and reptiles’.²⁵³⁶ It does not apply to marine mammals because the harvesting of these is governed by the Marine Resources Act (see D.4.1.2.6 below).²⁵³⁷

The act authorises the King, acting through his government, to decide which species of wildlife can be hunted in Norway and at what time of year the hunting can take place.²⁵³⁸ The Directorate for Nature Management then decides the precise hunting or trapping season for each species and the locations in which hunting may take place.²⁵³⁹ The hunting or trapping season does not need to be the same across the entire country nor does it need to be the same for males, females, young and mature individuals although the selected season must not be during the breeding or nesting season for the species and should not include either Christmas or Easter.²⁵⁴⁰ As well as deciding the time and location of hunting or trapping season, the Directorate for Nature Management can set quotas for the number of individuals which may be harvested during the hunt.²⁵⁴¹ The current hunting seasons are set out in regulations which cover the period from 2017 to 2022.²⁵⁴² For example, the pink footed goose may be hunted in most of Norway from 10 August to 23 December each

²⁵³² Wildlife Act 1981 ss 1–2.

²⁵³³ *ibid* 1.

²⁵³⁴ *ibid*.

²⁵³⁵ *ibid*.

²⁵³⁶ *ibid* 2.

²⁵³⁷ *ibid*; Marine Resources Act 2008.

²⁵³⁸ Wildlife Act 1981 s 9.

²⁵³⁹ *ibid*.

²⁵⁴⁰ *ibid*.

²⁵⁴¹ *ibid*.

²⁵⁴² Regulations of 25 January 2017 No 106 on Hunting and Fishing Times as well as Egg and Down Collecting for the Hunting Seasons from 1 April 2017 until 31 March 2022.

year.²⁵⁴³ In Troms County, however, and in the north of Nordland, pink footed geese may only be hunted from 21 August as the breeding season is later in the far north and in Finnmark, the species is protected so there is no hunting allowed at all.²⁵⁴⁴ The regulations also cover, for example, moose, which can be hunted from 25 September until 23 December except in the municipalities of Guovdageaidnu (Kautokeino) and Kárášjohka (Karasjok) in Finnmark where moose hunting is allowed from 1 September until 23 December and caribou (wild reindeer) which can be hunted throughout all wild areas of the country from 20 August to 30 September.²⁵⁴⁵ Where no authority is granted for hunting, and outside the defined dates when, and locations where, hunting is permitted, wildlife and the eggs, nests and habitats of all species in Norway are protected under section 15 of the Nature Diversity Act.²⁵⁴⁶

The Wildlife Act and regulations made under the act provide a number of limitations on the exercise of a hunting right, including age limits (generally 16 for small game, such as ptarmigan and willow grouse, and 18 for large game such as elk, bear and lynx), limits on the types of firearms and trapping devices which can be used and limits on the use of motorised vehicles during hunting.²⁵⁴⁷ All hunters are required to take the hunting course, pass the hunting proficiency test and be registered on the Norwegian Register of Hunters.²⁵⁴⁸ For those wishing to hunt large game, an additional shooting test must be passed.²⁵⁴⁹ In addition to registration, an annual fee must be paid for an annual hunting licence and there are further fees payable for hunting moose, deer and wild reindeer.²⁵⁵⁰ The money raised from these fees is paid into the Wildlife Fund and is used to promote wildlife management in Norway.²⁵⁵¹

While the act and regulations set out the requirements for hunting of species, limiting hunting to situations where the provisions of the regulations are complied with, they do not

²⁵⁴³ *ibid* 2.

²⁵⁴⁴ *ibid*.

²⁵⁴⁵ *ibid*.

²⁵⁴⁶ Wildlife Act 1981 s 3; Nature Diversity Act s 15.

²⁵⁴⁷ Regulations of 22 March 2002 No 313 on Hunting, Killing and Trapping ss 3, 5; Wildlife Act 1981 ss 20, 21, 24.

²⁵⁴⁸ Hunting, Killing and Trapping Regulations 2002 ss 8–10.

²⁵⁴⁹ *ibid* 18.

²⁵⁵⁰ Wildlife Act 1981 s 40.

²⁵⁵¹ *ibid* 43.

grant the right to hunt.²⁵⁵² The right to hunt on particular land generally rests with the owner of the land and merely having access to land does not give a person the right to hunt there.²⁵⁵³ On state owned land of the type found in Arctic Norway, Norwegian residents are allowed to hunt and trap small game.²⁵⁵⁴ For Sami people, the Reindeer Herding Act regulates their right to hunt and trap on state owned lands.²⁵⁵⁵

Violations of the Wildlife Act or regulations issued under the Wildlife Act are criminal offences subject to punishments of either a fine or a term of imprisonment of up to one year.²⁵⁵⁶ Where there are ‘especially aggravating circumstances’ then the term of imprisonment can be extended to a maximum of two years.²⁵⁵⁷ Where the behaviour is also a violation of the Nature Diversity Act then a penalty under s75 of that act shall apply.²⁵⁵⁸

D.4.1.2.6. Marine Resources Act 2008

The Nature Diversity Act applies to Norwegian land, internal waters and to Norwegian territorial waters but its effect is limited beyond the territorial waters.²⁵⁵⁹ While sections 15 and 16, relating to species protection, apply, as far as appropriate, to the continental shelf and the 200 mile exclusive economic zone, protection of species in the ocean is more specifically dealt with by the Marine Resources Act.²⁵⁶⁰ Unlike the Nature Diversity Act, however, the purpose of the Marine Resources Act is not species protection but instead is ‘to ensure sustainable and economically profitable management of wild living marine resources’.²⁵⁶¹ Despite the prioritising of economic sustainability over species protection, the act does require the management of marine resources to be done in such a way that minimises its impact and which ensures that both a precautionary approach and an ecosystem based approach, considering ‘habitats and biodiversity’, are taken.²⁵⁶² The act also calls for the methods used when harvesting marine resources to ‘reduce possible

²⁵⁵² *ibid* 27–36.

²⁵⁵³ *ibid*.

²⁵⁵⁴ *ibid* 31.

²⁵⁵⁵ *ibid*.

²⁵⁵⁶ *ibid* 56.

²⁵⁵⁷ *ibid*.

²⁵⁵⁸ *ibid*.

²⁵⁵⁹ Nature Diversity Act s 2.

²⁵⁶⁰ *ibid*; Marine Resources Act 2008.

²⁵⁶¹ Marine Resources Act 2008 s 1.

²⁵⁶² *ibid* 1, 7, 16.

negative impacts'. In addition to these principles, marine resources must be managed in such a way that 'the material basis for Sami culture' is maintained.²⁵⁶³

Under the act, wild living marine resources are defined as 'fish, marine mammals that spend part of all of their life cycle in the sea, plants and other marine organisms that live in the sea or on or under the seabed and that are not privately owned'.²⁵⁶⁴ The act declares these resources to belong to the people of Norway 'as a whole'.²⁵⁶⁵ This is in sharp contrast to the Wildlife Act which maintains the position that animals can only be hunted on private land by or with the permission of the landowner.²⁵⁶⁶ The act applies to everyone who falls within its geographical scope.²⁵⁶⁷ The scope is wide as the act applies on Norwegian land (except for Svalbard and Jan Mayen), within Norway's territorial waters, its continental shelf and Norway's economic zone.²⁵⁶⁸ It also applies on board Norwegian vessels wherever they are in the world.²⁵⁶⁹

The details of the act are beyond the scope of this chapter but a brief outline of the way in which the act works in relation to the harvesting of species is useful. The act permits the Ministry of Trade, Industry and Fisheries to prescribe quotas for the harvesting of marine resources by way of regulations.²⁵⁷⁰ These quotas can be determined by number of species, weight, volume or by the number of days on which harvesting may take place.²⁵⁷¹ These quotas may be made on a national basis, for particular districts within Norway, allotted to a 'defined group' such as a group of vessels or may be for individual vessels.²⁵⁷² The act also permits the Ministry to prohibit the harvesting of particular species either entirely or in particular areas.²⁵⁷³ For example, Norway allows the hunting of Northern minke whales despite the international moratorium on commercial whaling under the International Convention on the Regulation of Whaling 1946.²⁵⁷⁴ In 2018, the national quota of whales

²⁵⁶³ *ibid* 7.

²⁵⁶⁴ *ibid* 3.

²⁵⁶⁵ *ibid* 2.

²⁵⁶⁶ Wildlife Act 1981 ss 27–28.

²⁵⁶⁷ Marine Resources Act 2008 s 5.

²⁵⁶⁸ *ibid* 4.

²⁵⁶⁹ *ibid*.

²⁵⁷⁰ *ibid* 11.

²⁵⁷¹ *ibid*.

²⁵⁷² *ibid* 11, 12.

²⁵⁷³ *ibid* 16.

²⁵⁷⁴ Chester (n 24) 112; International Convention for the Regulation of Whaling (agreed at Washington DC on 2 December 1946, entered into force 10 November 1948), Schedule, s10(e).

which could be hunted was set at 1,278 whales with hunting allowed from 4 April 2018 until the Directorate of Fisheries stopped the hunt which it did, with immediate effect, on 20 September 2018.²⁵⁷⁵ The quota was a fairly substantial increase on the previous year where only 999 whales were allowed to be caught (and only 432 whales were actually caught).²⁵⁷⁶ Similarly, while there is a general prohibition on the capture of snow crab in Norwegian waters, there is a permitted quota of 4,000 tonnes of snow crab, available to those issued with permits in 2018.²⁵⁷⁷ There is also a generic ban on catching, hunting, killing or injuring seals but the Directorate of Fisheries is entitled to set out quotas for the harvesting of different types of seal.²⁵⁷⁸ In 2018, for example, licenced vessels were allowed to catch 33,000 Greenland (or harp) seals in the Arctic waters off Jan Mayen, Svalbard and east of Russia's economic zone.²⁵⁷⁹ For harbour seals and grey seals, the quotas for Troms and Finnmark for 2018 were 150 and 35 respectively, whereas free hunting was allowed for ringed seals in Nordland, Troms and Finnmark and for Greenland (or harp) seals right along the Norwegian coastline.²⁵⁸⁰

In a similar way to the hunting on land, there are limitations on the exercise of a right to hunt, such as regulations on the equipment which may be used, who may conduct a hunt, the information which must be provided regarding successful (or unsuccessful hunts) and any inspections which may be required.²⁵⁸¹ For example, whaling ships are required to have an inspector on board during hunting trips and to keep a log of everything caught to be sent to the Directorate of Fisheries within eight days of the end of the hunting season.²⁵⁸² The hunters use explosive harpoons in catching minke whales.²⁵⁸³ For sealing, hunters are required to seek a licence from their municipality and must have passed the large game hunting test.²⁵⁸⁴ They must report to their municipality before any hunting trip begins and

²⁵⁷⁵ Regulations of 4 April 2018 No 528 on the Control of the Harvesting of Minke Whales in 2018; Regulation of 20 September 2018 No 1348 on Stopping the Harvesting of Minke Whales in 2018.

²⁵⁷⁶ 'Norway Is Increasing the Number of Whales Hunters Can Slaughter' (*The Independent*, 7 March 2018) <<http://www.independent.co.uk/news/world/europe/norway-whaling-quota-rise-minke-whales-oslo-hunting-legal-slaughter-a8244326.html>> accessed 25 October 2018.

²⁵⁷⁷ Regulations of 19 December 2014 No 1836 on the Banning of the Capture of Snow Crabs.

²⁵⁷⁸ Regulations of 22 December 2009 No 1745 on the Control of Seals on the Norwegian Coast ss 4, 5.

²⁵⁷⁹ Regulations of 30 March 2018 No 446 on the Catch of Seals in the West and East Ice in 2018.

²⁵⁸⁰ Regulations of 4 December 2017 No 1919 on Quotas for the Pursuit of Coastal Seals in 2018 ss 2–5.

²⁵⁸¹ Marine Resources Act 2008 ss 16, 18, 34, 36, 40; Regulation of 31 March 2000 No 312 on the Practice of Catching a Minke Whale.

²⁵⁸² Harvesting Minke Whale Regulations 2018 ss 4, 5.

²⁵⁸³ Minke Whale Regulations 2000 s 2.

²⁵⁸⁴ Control of Seals Regulations 2009 s 6.

must report the outcome of the trip (even if unsuccessful) to the municipality on their return.²⁵⁸⁵ There are strict rules on the equipment which can be used in seal hunting, with the only permitted method of killing being a gun using exploding bullets.²⁵⁸⁶ The regulations demand that all seal hunting is done in a humane manner; clubbing seals to death (using traditional hakapik clubs) is not allowed.²⁵⁸⁷

Breaches of the Marine Resources Act or the regulations made under the act are dealt with by way of a coercive fine, an infringement fine or criminal liability.²⁵⁸⁸ Coercive fines are fines imposed as a result of failing to comply with an order.²⁵⁸⁹ They become effective once the deadline for complying with the order has passed.²⁵⁹⁰ An infringement fine is imposed where a person ‘wilfully or through negligence contravenes’ a provision of the act or a regulation and is used in place of criminal liability.²⁵⁹¹ The level at which the fine is set will take into account the seriousness of the behaviour, any profit made and any costs avoided by the person in contravention of the provision.²⁵⁹² Criminal penalties under the act can differ according to which section has been violated and who is responsible but, in general, a breach is subject to either a fine or a term of imprisonment of up to one year where the offence was committed ‘wilfully or through negligence’.²⁵⁹³ The term of imprisonment can rise to up to three years where an offence is considered to be serious and is committed ‘through gross negligence or wilfully’.²⁵⁹⁴ Where a criminal penalty has been imposed, any marine resource, vessel or equipment involved in the breach of the act can be confiscated or a penalty to the value of the item can be paid in lieu of surrendering the catch or object.²⁵⁹⁵

Norway has a significant amount of territorial water in the Arctic and the Marine Resources Act therefore has a large impact on marine species in Norway’s Arctic, especially the marine mammals such as whales and seals. The purpose of the Marine Resources Act is

²⁵⁸⁵ *ibid* 9, 13.

²⁵⁸⁶ *ibid* 12.

²⁵⁸⁷ *ibid*.

²⁵⁸⁸ Marine Resources Act 2008 ss 58–65.

²⁵⁸⁹ *ibid* 58.

²⁵⁹⁰ *ibid*.

²⁵⁹¹ *ibid* 59.

²⁵⁹² *ibid*.

²⁵⁹³ *ibid* 60–64.

²⁵⁹⁴ *ibid* 64.

²⁵⁹⁵ *ibid* 65.

not to ensure species protection although it does require the use of both the precautionary principle and an ecosystem based approach which should mean that any harvesting quotas are set at a level which the population of any particular species can endure.²⁵⁹⁶ The regulations setting out quotas generally prohibit the hunting of particular species and then provide the quota as an exception to the ban.²⁵⁹⁷ This has resulted in a ban on catching any whale except Northern minke whales in Norwegian waters.²⁵⁹⁸ These prohibitions, however, are easily changed and the quotas are amended annually so the level of protection is fairly low.

D.4.1.2.7. Act on the Conservation and Capture of Polar Bears 1957

Most polar bears in Norway are found on land and in territorial waters covered by the Svalbard Environmental Protection Act (see D.4.2.1 below) and the provisions of that act provide protection for such animals.²⁵⁹⁹ There is, however, an older act, dating from 1957 which protects polar bears which fall outside the remit of the Svalbard Environmental Protection Act.²⁶⁰⁰ The Act on the Conservation and Capture of Polar Bears is short and simple.²⁶⁰¹ It makes it unlawful to catch a polar bear either in Norwegian territory or outside Norwegian territory by Norwegian citizens, companies or organisations.²⁶⁰² The King has the authority to make exceptions and can also grant permission for live polar bears to be brought on shore.²⁶⁰³ Any breach of the law is punishable with a fine or a term of imprisonment of up to one year.²⁶⁰⁴ The only exception to this is where the polar bear has been captured intentionally or in a way which was grossly negligent and the incident is considered to have contributed to reducing the stock of a species threatened with extinction.²⁶⁰⁵ In such cases, the maximum term of imprisonment is raised to six years.²⁶⁰⁶

²⁵⁹⁶ *ibid* 7.

²⁵⁹⁷ Harvesting Minke Whale Regulations 2018 ss 1–2.

²⁵⁹⁸ *ibid*.

²⁵⁹⁹ Svalbard Environmental Protection Act 2001.

²⁶⁰⁰ Polar Bear Act 1957.

²⁶⁰¹ *ibid*.

²⁶⁰² *ibid* 1–2.

²⁶⁰³ *ibid* 2.

²⁶⁰⁴ *ibid* 3.

²⁶⁰⁵ Act of 20 May 2005 No 28 Criminal Code s 240(2)(a); Polar Bear Act 1957 s 3.

²⁶⁰⁶ Norwegian Criminal Code 2005 s 240(2)(a); Polar Bear Act 1957 s 3.

D.4.1.2.8. Management of Predators

The Norwegian government and parliament (Storting) has published National Environmental Targets which set out, at a policy level, its aims and desires for the Norwegian environment.²⁶⁰⁷ In relation to some wildlife species, particularly the four large predators, these targets are very specific.²⁶⁰⁸ For wolverine, for example, the national target is that there should be 39 litters of wolverine in Norway each year (with 3 in Finnmark), while for brown bear, the annual target is 13 litters.²⁶⁰⁹ The target also covers lynx (65 litters with 4 in Finnmark), wolf (3 litters, increased in 2016 to 4-6) and golden eagle (850-1200 breeding pairs) as well as less specific targets for other species, such as the target that ‘the extinction of threatened marine species will be halted and the status of declining species will be improved by 2020’.²⁶¹⁰ The National Environmental Targets were created by way of a resolution of the Storting, which requested that the government implement the targets recommended in the white paper on the subject. They are used to inform policy making decisions relating to the management of the environment and when formulating strategies for environmental protection; annual reports are produced to enable the Storting to monitor adherence to their resolution.²⁶¹¹ There has been some criticism that the targets for the four large predators are seen as both maximums and minimums, with culling of predators allowed as long as the target is met meaning that the protection provided by the targets will not result in full recovery of the species.²⁶¹²

²⁶⁰⁷ ‘Norway’s Environmental Targets’ 56; ‘St Meld Nr 15 (2003-2004) Rovvilt i Norsk Natur (White Paper Nr 15 (2003-2004) Large Predators in the Norwegian Nature)’; Decision of the Storting No 335 (2004) Resolution 340.

²⁶⁰⁸ ‘Norway’s Environmental Targets’ (n 2607); ‘St Meld Nr 15 (2003-2004) Rovvilt i Norsk Natur (White Paper Nr 15 (2003-2004) Large Predators in the Norwegian Nature)’ (n 2607); Decision of the Storting No 335 (2004) Resolution 340.

²⁶⁰⁹ ‘Norway’s Environmental Targets’ (n 2607) 20, 24; ‘St Meld Nr 15 (2003-2004) Rovvilt i Norsk Natur (White Paper Nr 15 (2003-2004) Large Predators in the Norwegian Nature)’ (n 2607) para 6.1.6; Decision of the Storting No 335 (2004) Resolution 340.

²⁶¹⁰ ‘Norway’s Environmental Targets’ (n 2607) 8, 20; ‘Wolf: Four Litters’ <<http://www.miljostatus.no/goals/1.-biodiversity/target-1.2/status-of-specific-threatened-species/four-wolf-litters/>> accessed 2 November 2018; ‘St Meld Nr 15 (2003-2004) Rovvilt i Norsk Natur (White Paper Nr 15 (2003-2004) Large Predators in the Norwegian Nature)’ (n 2607) para 6.1.6.

²⁶¹¹ ‘Norway’s Environmental Targets’ (n 2607) 52; ‘St Meld Nr 15 (2003-2004) Rovvilt i Norsk Natur (White Paper Nr 15 (2003-2004) Large Predators in the Norwegian Nature)’ (n 2607); Decision of the Storting No 335 (2004) Resolution 340; Stortinget Rules of Procedure 2017 s 14(8).

²⁶¹² Arie Trouwborst, Floor M Fleurke and John DC Linnell, ‘Norway’s Wolf Policy and the Bern Convention on European Wildlife: Avoiding the “Manifestly Absurd”’ (2017) 20 *Journal of International Wildlife Law & Policy* 155, 17.

D.4.2. Svalbard and Jan Mayen

Only chapter VII of the Nature Diversity Act applies either to Svalbard or Jan Mayen.²⁶¹³ Instead, the islands have their own environmental protection acts, better suited to their specific geopolitical and natural environments. In Svalbard, the act which deals with all environmental protection, including species protection is the Svalbard Environmental Act, supplemented, in the case of polar bears, by a specific act relating to their management.²⁶¹⁴ For Jan Mayen, the Act on Jan Mayen grants authority to the King to make regulations regarding environmental protection for the island.²⁶¹⁵

D.4.2.1. Svalbard Environmental Protection Act 2001

The main legislation aimed at species protection on Svalbard is the Svalbard Environmental Protection Act.²⁶¹⁶ It was passed 15 June 2001 in order to codify the various environmental laws which existed previously. The stated purpose of the act is to ‘preserve a virtually untouched environment in Svalbard with respect to continuous areas of wilderness, landscape, flora, fauna and cultural heritage’.²⁶¹⁷ The act recognises that it would be impossible to keep Svalbard as an entirely untouched wilderness and therefore it ‘allows for environmentally sound settlement, research and commercial activities’ within the ‘framework’ of the protection of a ‘virtually untouched environment’.²⁶¹⁸ The act applies to ‘the entire land area of Svalbard’ and its territorial waters up to the territorial limit of 12 nautical miles.²⁶¹⁹ Svalbard itself is not defined in the act but there is a reference to the Svalbard Treaty so it must be presumed that the definition found in the Svalbard treaty applies, meaning that the act must apply to the entire archipelago of Spitsbergen and the island of Bjørnøya.²⁶²⁰

D.4.2.1.1. General Principles

The Svalbard Environmental Protection Act contains similar general principles to those found in the Nature Diversity Act.²⁶²¹ The principles are found in section five to ten of the

²⁶¹³ Nature Diversity Act s 2.

²⁶¹⁴ Svalbard Environmental Protection Act 2001.

²⁶¹⁵ Jan Mayen Act 1930 s 2.

²⁶¹⁶ Svalbard Environmental Protection Act 2001.

²⁶¹⁷ *ibid* 1.

²⁶¹⁸ *ibid*.

²⁶¹⁹ *ibid* 2; United Nations Convention on the Law of the Sea (adopted 10 December 1982, entered into force 16 November 1994) 1833 United Nations Treaty Series 3.

²⁶²⁰ Svalbard Environmental Protection Act 2001.

²⁶²¹ *ibid* 5–10.

Svalbard Environmental Protection Act and together create a structure for the interpretation of the rest of the act.²⁶²² Section five creates a duty of care which applies generally and sections six to ten explain the principles by which authority under the act should be exercised.²⁶²³ The general duty of care states that ‘due consideration’ must be shown and care exercised to ensure that ‘unnecessary damage or disturbance’ is not caused to the ‘natural environment or cultural heritage’.²⁶²⁴ The duty applies to all persons staying on Svalbard and anyone who ‘operates an undertaking’ on the archipelago.²⁶²⁵ The duty also extends to the head of any ‘undertaking’ who is responsible for ensuring that the staff involved in the undertaking are aware of the provisions of the act relating environmental and cultural protection.²⁶²⁶ The principles regarding to the exercise of authority are also similar to those found in the Nature Diversity Act. Officials are expected to implement the precautionary principle, avoiding damage to the environment even if there is insufficient evidence of the effect of an activity.²⁶²⁷ They are also required to assess any potential threats to the environment on a cumulative basis, rather than assessing each individual impact on its own.²⁶²⁸ This is important as it reduces the risk of a group of activities being permitted when while each individual activity only has a small impact on the environment, together the impact is much greater. The Svalbard Environmental Protection Act works on the basis of the ‘user pays principle’, with the cost of preventing any environmental damage covered by the person who causes that damage.²⁶²⁹ Finally, where an activity takes place on Svalbard, it should make use of technology that causes the least amount of environmental harm.²⁶³⁰ The only exception is for existing activities where it would be economically unviable to update the technology and the damage is ‘justifiable’ following an environmental assessment.²⁶³¹

²⁶²² *ibid.*

²⁶²³ *ibid.*

²⁶²⁴ *ibid* 5.

²⁶²⁵ *ibid.*

²⁶²⁶ *ibid.*

²⁶²⁷ *ibid* 7.

²⁶²⁸ *ibid* 8.

²⁶²⁹ *ibid* 9.

²⁶³⁰ *ibid* 10.

²⁶³¹ *ibid.*

D.4.2.1.2. Rules on Species Protection

Chapter IV of the Svalbard Environmental Protection Act covers the protection of flora and fauna on Svalbard.²⁶³² The section applies to all species of plants and animals (as well as lichens, mosses, fungi etc) which are found both on the land of Svalbard and in the sea up to the territorial limit.²⁶³³ There are three exceptions to this, namely salt-water fish, crustaceans and ‘marine mammals that do not show site fidelity in Svalbard’, meaning that marine mammals which do not regularly return to Svalbard, such as to breed, overwinter or spend the summer, are not protected by the chapter except for the sections on import and release of live specimens.²⁶³⁴ The fundamental principle guiding all wildlife protection on Svalbard is that each species is to be maintained in such a way as to protect ‘the natural productivity and diversity of species’ and to maintain the habitats of species found on Svalbard.²⁶³⁵ There is also a desire to protect the wilderness found on Svalbard for future generations.²⁶³⁶

Svalbard, like mainland Norway, operates a system of ‘general protection’ for all species of flora and fauna, unless there are exceptions provided for under the Svalbard Environmental Protection Act, such as for hunting or harvesting.²⁶³⁷ The general protection extends to the species themselves, their eggs and any nests or lairs.²⁶³⁸ The standard of the general protection is merely that the species is ‘protected’.²⁶³⁹ For flora this means that no one may ‘damage or remove flora’ except where that damage is caused by a lawful activity including access or passage.²⁶⁴⁰ Everyone is allowed to collect fungi and seaweed for personal use.²⁶⁴¹ Those wishing to collect fungi and seaweed for academic purposes may also collect it although they must make sure not to take too much of any local population.²⁶⁴² For fauna, the standard of protection is that no one is allowed to ‘hunt, capture, injure or kill’ any animal, including a single celled animal, vertebrate and

²⁶³² Svalbard Environmental Protection Act 2001 ch IV.

²⁶³³ *ibid* 23.

²⁶³⁴ *ibid* 23, 26, 27.

²⁶³⁵ *ibid* 24.

²⁶³⁶ *ibid*.

²⁶³⁷ *ibid* 25.

²⁶³⁸ *ibid*.

²⁶³⁹ *ibid*.

²⁶⁴⁰ *ibid* 28.

²⁶⁴¹ *ibid* 29.

²⁶⁴² *ibid*.

invertebrate, or damage their ‘eggs, nests or lairs’ without permission under the act.²⁶⁴³ Where a person is undertaking a lawful activity, or is using their lawful rights to access or pass through a part of Svalbard, then any consequential damage to a ‘single-celled animal or invertebrate’ is permitted, but not for larger species or vertebrates.²⁶⁴⁴ In order to protect the large number of nesting seabirds on Svalbard, no one is allowed to make any loud noises, such as with a gun or the siren of a ship, within one nautical mile of a seabird colony during the summer nesting period from 1 April to 31 August in any year.²⁶⁴⁵

Introducing new species can harm the balance of the ecosystem by causing changes to the physical environment and disrupting the food web.²⁶⁴⁶ So as to prevent this happening on Svalbard, no one is allowed to introduce or release species which are not naturally found on Svalbard into the environment, neither are they allowed to move species around the islands.²⁶⁴⁷ In order to import any live specimen to Svalbard, a permit is required.²⁶⁴⁸

D.4.2.1.3. Enforcement

The enforcement measures in the Svalbard Environmental Protection Act are similar to those found in the Nature Diversity Act and can be split into three types, restoration, compensation and punishment.²⁶⁴⁹ Where a person has broken a rule made in or under the Svalbard Environmental Protection Act and their actions have resulted in an ‘impact on the environment in Svalbard’ then they may be responsible for ameliorating that impact, either by preventing further harm or by restoring the harm which they have caused.²⁶⁵⁰ Where it would be unreasonable to expect the party who caused the harm to restore it, because of their level of fault, their ability to pay, and either the financial or environmental cost of the measures required, then the responsibility will not be imposed.²⁶⁵¹ If the person responsible fails to remedy the harm caused, or to undertake any other duty required under the act, then the Sysselmannen can make arrangements for the any necessary action to secure the

²⁶⁴³ *ibid* 30.

²⁶⁴⁴ *ibid*.

²⁶⁴⁵ *ibid*.

²⁶⁴⁶ Joan G Ehrenfeld, ‘Ecosystem Consequences of Biological Invasions’ (2010) 41 *Annual Review of Ecology, Evolution, and Systematics* 59.

²⁶⁴⁷ Svalbard Environmental Protection Act 2001 s 26.

²⁶⁴⁸ *ibid*.

²⁶⁴⁹ *ibid* 93–99.

²⁶⁵⁰ *ibid* 93.

²⁶⁵¹ *ibid*.

restoration required.²⁶⁵² Any costs incurred as a result of these actions can be reclaimed from the person who was responsible for carrying out the restoration or other duty under the act.²⁶⁵³

Where a person has caused harm to the environment as a result of a breach of the act or any regulations made under the act, they may become liable to pay compensation.²⁶⁵⁴ There are two forms of compensation, compensation for losses and compensation payable to the Svalbard Environmental Protection Fund.²⁶⁵⁵ Compensation for economic loss can become payable, regardless of the fault of the individual responsible for the breach of the act.²⁶⁵⁶ The compensation can cover economic loss as a result of the environmental damage preventing otherwise lawful access to the environment, particularly if that access concerns commercial activities.²⁶⁵⁷ Compensation may also be payable where costs have been incurred in preventing further environmental damage and restoring any harm caused.²⁶⁵⁸ The second type of compensation payable is a contribution to the Svalbard Environmental Protection Fund.²⁶⁵⁹ The fund was established under the act to collect money paid as compensation or as fines for breaches of the act.²⁶⁶⁰ Money in the fund can only be used for measures which protect the environment of Svalbard, for example, conducting surveying or monitoring, for environmental repair, for maintaining Svalbard's cultural heritage and for information and training.²⁶⁶¹

Thirdly, where a person has breached a provision of the Svalbard Environmental Protection Act, the Sysselmannen may impose either a coercive fine or a contravention charge to be paid to the Svalbard Environmental Protection Fund.²⁶⁶² For wilful or negligent behaviour, a prison term of up to one year, or three years for causing a risk of 'substantial environmental damage' or where there are other aggravating factors, may be imposed.²⁶⁶³

²⁶⁵² *ibid* 97.

²⁶⁵³ *ibid*.

²⁶⁵⁴ *ibid* 95.

²⁶⁵⁵ *ibid*.

²⁶⁵⁶ *ibid*.

²⁶⁵⁷ *ibid*.

²⁶⁵⁸ *ibid*.

²⁶⁵⁹ *ibid*.

²⁶⁶⁰ *ibid* 98.

²⁶⁶¹ *ibid*.

²⁶⁶² *ibid* 96, 96a.

²⁶⁶³ *ibid* 99.

D.4.2.1.4. Hunting and Harvesting

For some species, the protections found under the Svalbard Environmental Protection Act are not absolute. The Sysselmannen is allowed to issue regulations which allow for harvesting and the collection of eggs and down and any harvesting must take place in accordance with the regulations.²⁶⁶⁴ The time of year in which any particular species can be hunted is limited by regulation and no harvesting, except, with permission, for eggs and down, is allowed when the species is expected to be breeding or nesting.²⁶⁶⁵ Even where harvesting is permitted, it must be done in such a way as to avoid causing any ‘unnecessary suffering’ to the species and should not cause any risk to human life or to property.²⁶⁶⁶ Any regulations allowing for harvesting must take into account the need to ensure that the overall population of the species is not greatly affected.²⁶⁶⁷ For any species not included in the regulations, such as walrus, hooded seal, whales and most bird species, no hunting or harvesting is allowed.²⁶⁶⁸ For walruses, the level of protection, and the provision of protected haul out land, has resulted in the recovery of the species which was nearly forced into extinction as a result of heavy harvesting over three and a half centuries.²⁶⁶⁹

Any harvesting of fauna which takes place requires a licence, such as a hunting licence or a fishing licence.²⁶⁷⁰ In order to obtain a hunting licence, a person must be at least 16 years old except if they wish to hunt Svalbard reindeer or marine mammals in which case they must be 18 years old.²⁶⁷¹ There are provisions for younger hunters to be trained in hunting but they must be accompanied by an experienced hunter.²⁶⁷² All hunters must also pass a hunting proficiency test or be included in the Norwegian Register of Hunters (or an equivalent in their home nation).²⁶⁷³ Those wishing to hunt Svalbard reindeer or marine mammals must also take a large game shooting proficiency test.²⁶⁷⁴ For those who fulfil

²⁶⁶⁴ *ibid* 31.

²⁶⁶⁵ *ibid*.

²⁶⁶⁶ *ibid*.

²⁶⁶⁷ *ibid*.

²⁶⁶⁸ *ibid* 25; Svalbard Hunting Regulations 2002.

²⁶⁶⁹ Kit M Kovacs, Jon Aars and Christian Lydersen, ‘Walruses Recovering after 60+ Years of Protection in Svalbard, Norway’ (2014) 33 *Polar Research* 26034.

²⁶⁷⁰ Svalbard Environmental Protection Act 2001 s 32.

²⁶⁷¹ Svalbard Hunting Regulations 2002 s 14.

²⁶⁷² *ibid*.

²⁶⁷³ *ibid* 15.

²⁶⁷⁴ *ibid* 16.

the requirements and pay the stipulated fee to the Sysselman, a licence may be issued.²⁶⁷⁵ The licence will specify the species which may be hunted, trapped or fished, any quota or limit on the numbers which may be harvested, what equipment can be used in order to harvest the species, the area in which the harvest may take place and the dates between which harvesting is permitted.²⁶⁷⁶ Only residents of Svalbard are allowed to hunt Svalbard reindeer (and only one each per year), Arctic foxes and certain species of fish although they must still abide by the rules on timings and locations for hunting and trapping these species as well as any additional rules listed on their harvesting licence.²⁶⁷⁷ Quotas for ptarmigan are low, with non-residents allowed only five ptarmigan per season.²⁶⁷⁸

Each of the eight species which is covered by the Svalbard Hunting Regulations (ringed seal, bearded seal, Arctic fox, Svalbard reindeer, fulmar, pink footed goose, Svalbard ptarmigan and black guillemot) sets out a hunting season or a period during which hunting, trapping or fishing for that species is allowed.²⁶⁷⁹ For example, Arctic fox may be hunted or trapped from 1 November to 15 March whereas Svalbard reindeer may only be hunted between 15 August and 20 September.²⁶⁸⁰ As well as setting timings for hunting and trapping the Svalbard Hunting Regulations specify certain permitted and proscribed behaviours in relation to the hunting or trapping.²⁶⁸¹ For example, hunters are not allowed to use artificial light to lure animals towards them, neither are they allowed to fire shots from an aircraft or vehicle nor can they usually shoot at seals while they are in the water.²⁶⁸² The regulations also specify the types of guns which can be used to hunt different species and the type of traps which may be used.²⁶⁸³ When an animal is shot or wounded, it is the duty of the hunter to ensure that it is killed as soon as possible. The hunter is required to search for a wounded Svalbard reindeer until the end of the day in which it was wounded and, if the animal cannot be found, to alert the Sysselmannen to the missing, injured reindeer.²⁶⁸⁴

²⁶⁷⁵ *ibid* 9.

²⁶⁷⁶ *ibid*.

²⁶⁷⁷ *ibid* 11.

²⁶⁷⁸ Regulations of 4 August 2003 on Hunting of Svalbard Rock Ptarmigan and Svalbard Reindeer in Svalbard.

²⁶⁷⁹ Svalbard Hunting Regulations 2002 s 7.

²⁶⁸⁰ *ibid*.

²⁶⁸¹ *ibid* 24–33.

²⁶⁸² *ibid* 24, 25, 28a.

²⁶⁸³ *ibid* 27, 28, 30.

²⁶⁸⁴ *ibid* 28b.

Where a person has been issued with a licence allowing them to hunt or to collect eggs on Svalbard, they are required to report the results of their harvesting expedition to the Sysselmannen within ten days of the date on which their licence expires.²⁶⁸⁵ In addition to this requirement, the pelts of any Arctic foxes which are taken must be labelled, microchipped and the details entered into a national register.²⁶⁸⁶ Svalbard reindeer must be marked with a control card as soon as they have been killed.²⁶⁸⁷

When a person ‘wilfully or negligently’ contravenes the Svalbard Hunting Regulations, they will be liable, on conviction, to a fine or to a term of imprisonment of up to one year.²⁶⁸⁸ If their actions cause or risk causing ‘substantial environmental damage’ or there are other ‘especially aggravating circumstances’, the perpetrator may be sentenced to serve a term of imprisonment of up to three years.²⁶⁸⁹

D.4.2.1.5. Polar Bears

The population of polar bears on Svalbard is about the same as the human population but interactions between the two can be harmful, or even fatal, for either humans or bears. As such, the Svalbard Environmental Protection Act contains a number of measures aimed at reducing interactions between bears and humans and protecting both to the greatest extent possible. For example, it is unlawful to ‘lure, pursue or otherwise seek out polar bears’ if doing so would cause any disturbance to the bear or ‘expose either bears or humans to danger’.²⁶⁹⁰ The regulations require humans travelling outside of Longyearbyen and the other settlements to be equipped with the means to ward off a polar bear attack and the knowledge of how to do so without harming the bear.²⁶⁹¹ This usually means that those leaving town will carry flares and a rifle to protect themselves.

Unlike for many other species found on Svalbard, the protection of the polar bear is absolute, with no hunting allowed at all.²⁶⁹² This rule was established in 1973, in response

²⁶⁸⁵ *ibid* 12.

²⁶⁸⁶ *ibid* 16a.

²⁶⁸⁷ *ibid* 33.

²⁶⁸⁸ *ibid*.

²⁶⁸⁹ *ibid*.

²⁶⁹⁰ Svalbard Environmental Protection Act 2001 s 30.

²⁶⁹¹ *ibid* 30a.

²⁶⁹² ‘Polar Bear Take’ (n 399).

to the Polar Bear Agreement 1973, prior to which polar bears were widely hunted on Svalbard.²⁶⁹³ It is estimated that in 1924 over 900 polar bears were killed.²⁶⁹⁴ They were prized for their pelts and live cubs were taken to be exhibited in Europe and America. Even as recently as 1970, 500 polar bears were killed by hunters in one season.²⁶⁹⁵ The ban on hunting polar bears has allowed the population of bears in the Barents Sea and around Svalbard to recover, at least in part.²⁶⁹⁶

While there is no hunting allowed, there are a limited number of situations where polar bears can legally be killed on Svalbard. Where a polar bear (or other animal) is causing an immediate threat to the life or health of a person or is threatening to cause ‘substantial material damage’ then the bear may be killed in order to remove the threat.²⁶⁹⁷ Where the polar bear is killed or an attempt is made to kill it, the Sysselmannen shall be informed as soon as possible.²⁶⁹⁸ Where an incident is reported, it is taken extremely seriously with a full police investigation initiated regarding the circumstances surrounding the killing.²⁶⁹⁹ Where a polar bear (or other animal) is found repeatedly in or around a settlement and there is a threat of injury to humans or ‘significant material damage’ to property then a permit may be issued to allow the polar bear to be killed.²⁷⁰⁰ Before such a permit will be issued, reasonable attempts to remove the polar bear by non-fatal means should be attempted.²⁷⁰¹ It seems that permits can also be issued where putting the polar bear down would be the humane course of action but it is not clear that this section of the act covers such an eventuality.

Fortunately, and probably as a result of the precautions required, human fatalities from polar bears are rare in Svalbard. There have been about six deaths since 1971, all of which

²⁶⁹³ *ibid.*

²⁶⁹⁴ *ibid.*

²⁶⁹⁵ *ibid.*

²⁶⁹⁶ George Durner, Kristin Laidre and Geoffery York (eds), *Polar Bears: Proceedings of the 18th Working Meeting of the IUCN/SSC Polar Bear Specialist Group, 7–11 June 2016, Anchorage, Alaska* (IUCN 2018) 192 <<https://portals.iucn.org/library/sites/library/files/documents/SSC-OP-063-En.pdf>> accessed 11 May 2018.

²⁶⁹⁷ Svalbard Environmental Protection Act 2001 s 33.

²⁶⁹⁸ *ibid.*

²⁶⁹⁹ ‘Polar Bear Incident on Phipps Island Still under Investigation’ (*Svalbard Sysselmannen*, 30 July 2018) <<http://www.sysselmannen.no/en/News/2018/07/polar-bear-incident-on-hipps-island-still-under-investigation/>> accessed 14 September 2018.

²⁷⁰⁰ Svalbard Environmental Protection Act 2001 s 34.

²⁷⁰¹ *ibid.*

were as a result of lack of or incorrect polar bear deterrents being carried.²⁷⁰² The most recent case, in 2011, was widely publicised after a 17 year old British boy died while on a school trip.²⁷⁰³ Interactions which result in the death of polar bears are more common and occur at a rate of about two to three per year.²⁷⁰⁴ In 2018, a bear was shot when it attacked a crew member of a cruise ship who had come onshore to prepare to bring passengers ashore.²⁷⁰⁵ The crew member suffered non-fatal head injuries but the polar bear was killed.²⁷⁰⁶

D.4.2.2. Jan Mayen

There are no specific species management laws in relation to Jan Mayen. Instead, the majority of the island has been designated as a nature reserve and protections for wildlife is covered by the regulations relating to the nature reserve in and under the Regulations on the Conservation of the Jan Mayen Nature Reserve.²⁷⁰⁷ The act which made Jan Mayen a part of the Kingdom of Norway in 1930 gives authority to the King to make regulations regarding environmental protection on Jan Mayen. Under this authority, in 2010, the whole of Jan Mayen, including a marine area of 4,315km² surrounding the island, was protected as a nature reserve.²⁷⁰⁸ The entire island is protected except for the ‘business area’ on the east of the island where the town Olonkinbyen, the meteorological station and the airport are located and a small area on the west known as Kvalrossbukta.²⁷⁰⁹ The purpose of the establishment of the nature reserve is to ‘preserve an almost untouched Arctic island and adjacent seas, including the seabed, with distinctive landscapes, active volcanic systems, special flora and fauna and many cultural monuments’. In particular, the aim is to protect,

²⁷⁰² Ian Gjertz and Endre Persen, ‘Confrontations Between Humans and Polar Bears in Svalbard’ (1987) 5 Polar Research 253; Ian Gjertz and Jon Ove Scheie, ‘Human Casualties and Polar Bears Killed in Svalbard, 1993–1997’ (1998) 34 Polar Record 337; Josh Layton, Sam Jones and Steven Morris, ‘Polar Bear Kills Young British Adventurer in Norway’ *The Guardian* (5 August 2011) <<https://www.theguardian.com/world/2011/aug/05/polar-bear-mauls-british-death>> accessed 14 September 2018; ‘Polar Bear’ (*Spitsbergen | Svalbard*) <<https://www.spitsbergen-svalbard.com/spitsbergen-information/fauna/polar-bear.html>> accessed 14 September 2018.

²⁷⁰³ ‘Polar Bear’ (n 2702).

²⁷⁰⁴ *ibid*; ‘Polar Bear Take’ (n 399).

²⁷⁰⁵ ‘Polar Bear Incident on Phipps Island Still under Investigation’ (n 2699); ‘Mann Angrepet av Isbjørn (Man Attacked by Polar Bear)’ *Svalbardposten* (Longyearbyen, 29 July 2018) <https://svalbardposten.no/index.php?page=vis_nyhet&NyhetID=10067> accessed 14 September 2018.

²⁷⁰⁶ ‘Polar Bear Incident on Phipps Island Still under Investigation’ (n 2699).

²⁷⁰⁷ Jan Mayen Nature Reserve Regulations 2010.

²⁷⁰⁸ *ibid*.

²⁷⁰⁹ *ibid* 2.

inter alia, the ‘islands magnificent and unique landscapes’, the ‘very important living area for seabirds’ and the ‘distinctive ecology that is developed on isolated islands’.²⁷¹⁰

The restrictions on Jan Mayen are draconian and are designed to ensure that there is as little human interference as possible with the island, allowing the bare minimum required to run the established meteorological station and the associated infrastructure. No one is allowed to land a plane in the nature reserve and during the summer, except for access to the airport, no one may fly a plane, or even cause a loud noise, within one nautical miles of a bird.²⁷¹¹ Similarly, no one is allowed to land a boat within the nature reserve except with the express permission of the station manager.²⁷¹² This means that boats can only be landed at Olonkinbyen and Kvalrossbukta. The rules, in effect, cut off access to the nature reserve by tourists, adventurers, explorers and mountain climbers.²⁷¹³ Even if they can land by boat or plane, they cannot use a motor vehicle to get around and they are prohibited from sleeping in a tent anywhere in the nature reserve.²⁷¹⁴ There were comparatively few visitors prior to the introduction of the regulations, a few climbers, some explorers and a small number of ships; since the creation of the nature reserve, their access to the island is almost entirely prevented in order that the environment of Jan Mayen can be protected.²⁷¹⁵ Flora, fauna and other living organisms found on the island are protected and no one is allowed to damage, destroy or disturb any living species, unless they are involved in traffic which is permitted under the regulations.²⁷¹⁶ No one is allowed to introduce a non-native species to the island.²⁷¹⁷ Fishing and the harvest of marine mammals is allowed where otherwise permitted as long as the equipment used does not harm the sea bed.²⁷¹⁸

Breaches of the regulations protecting Jan Mayen are dealt with in two ways, rectification and criminal penalties.²⁷¹⁹ The first means that the party responsible for the violation will be given a deadline by which that breach must be rectified.²⁷²⁰ Where the deadline is not

²⁷¹⁰ *ibid* 3.

²⁷¹¹ *ibid* 4.4.

²⁷¹² *ibid* 4.3.

²⁷¹³ ‘Jan Mayen Information’ (n 353).

²⁷¹⁴ Jan Mayen Nature Reserve Regulations 2010 s 4.2; ‘Jan Mayen Information’ (n 353).

²⁷¹⁵ ‘Jan Mayen Information’ (n 353); Jan Mayen Nature Reserve Regulations 2010 s 3.

²⁷¹⁶ Jan Mayen Nature Reserve Regulations 2010 s 2.1.

²⁷¹⁷ *ibid* 2.2.

²⁷¹⁸ *ibid* 1.3, 2.3.

²⁷¹⁹ *ibid* 10–11.

²⁷²⁰ *ibid* 10.

met, the competent authorities can carry out any works required and recover the costs from the party responsible.²⁷²¹ The second means of enforcement is through seeking a criminal conviction.²⁷²² In cases where a breach of the regulations is intentional or negligent, the person responsible and anyone co-operating may, on conviction, be punished by a fine or a prison sentence of up to one year.²⁷²³

D.5. Habitat Protection

Habitat protection is important in Norway and protected lands are widespread. In 2013, 17% of the landmass of mainland Norway was ‘legally protected as national park, protected landscape or nature reserve’.²⁷²⁴ Svalbard, being predominately uninhabited, had national parks and other legal protections covering 65% of its landmass.²⁷²⁵ The numbers are huge: there are 44 national parks, 200 protected landscapes and over 2000 nature reserves.²⁷²⁶

D.5.1. Mainland Norway

As well as providing for the protection of individual species, the Nature Diversity Act, provides for the protection of entire habitats and ecosystems on mainland Norway. The act provides for six types of land protection designations, national parks, protected landscapes, nature reserves habitat management areas, marine protected areas and selected habitat types.²⁷²⁷ Each of the land protection types has different selection criteria but all are created by the government by regulations, with a different regulation for each protected area.²⁷²⁸ As the Nature Diversity Act does not establish how protected land can be used, the regulation which creates each protected area also creates the rules for the use of that land, proscribing certain behaviours, including access to the land and establishing which activities can take place on the land.²⁷²⁹

²⁷²¹ *ibid.*

²⁷²² *ibid* 11.

²⁷²³ *ibid.*

²⁷²⁴ Bugge (n 261) 188.

²⁷²⁵ Bugge (n 261); ‘Protected Areas’ (*Miljøstatus*)

<<http://www.miljostatus.no/topics/biodiversity/protected-areas/>> accessed 13 August 2018; ‘Protected Areas’ (*Statistics Norway*) <<https://www.ssb.no/en/natur-og-miljo/statistikker/arealvern/aar/2017-06-13>> accessed 13 August 2018.

²⁷²⁶ Bugge (n 261).

²⁷²⁷ Nature Diversity Act.

²⁷²⁸ *ibid* 34.

²⁷²⁹ *ibid.*

D.5.1.1. Nasjonalparker - National Parks

National Parks are the jewels in the crown of the land protection system in Norway. They are generally formed from huge tracts of land, often entire mountain ranges and more, set aside for environmental purposes and enjoyed for recreation by Norwegians of all ages. Land may be designated as a national park where it fits the description of a 'large area[] of natural habitat that contain[s] distinctive or representative ecosystems or landscapes and where there is no major infrastructure development'.²⁷³⁰ There are 44 national parks in Norway, of which 37 are found on mainland Norway.²⁷³¹ These national parks cover over 31,000 km² which is 9.7% of the land in mainland Norway.²⁷³² Fifteen of the national parks are located north of the Arctic Circle, with six in Finnmark, five in Troms and the rest in the north of Nordland.²⁷³³ The other seven national parks are situated on Svalbard.²⁷³⁴

D.5.1.2. Landskapsvernområder - Protected Landscapes

Where the area to be protected is less wild than is required for designation as a national park, for example because it has been altered by human use such as agriculture, fishing or other traditional industry, it may be designated a protected landscape.²⁷³⁵ Protected landscapes are important for both their ecological and their cultural value.²⁷³⁶ The environment and the human activities which have contributed to the development of the land, such as ancient roads or the buildings in a traditional fishing village, are both considered part of the protected landscape.²⁷³⁷ Although protected landscapes are not untouched wilderness areas, they are protected in order that there are no further changes made to the environment and no damage done to the cultural heritage of the area.²⁷³⁸ There are about 200 protected landscapes in Norway.²⁷³⁹ Of these, 11 are located in Finnmark, 23 in Troms and 19 in Nordland.²⁷⁴⁰ One of the largest protected landscapes in the Arctic

²⁷³⁰ *ibid* 35.

²⁷³¹ 'Protected Areas' (n 2725).

²⁷³² *ibid*.

²⁷³³ 'Protected Areas - August 2018' (*ssb.no*) <<https://www.ssb.no/en/natur-og-miljo/statistikker/arealvern/aar/2018-08-27>> accessed 30 August 2018.

²⁷³⁴ 'Protected Area, by Region, Protected Area, Contents and Year - Svalbard and Jan Mayen' (*Statistics Norway*, 24 September 2018) <<https://www.ssb.no/en/statbank/table/08936/tableViewLayout1/>> accessed 24 September 2018; *Protected Areas in Svalbard* (n 2350) 2.

²⁷³⁵ Nature Diversity Act s 36.

²⁷³⁶ *ibid*.

²⁷³⁷ *ibid*.

²⁷³⁸ *ibid*.

²⁷³⁹ Bugge (n 261) 199.

²⁷⁴⁰ 'Protected Area, by Region, Protected Area, Contents and Year - Mainland Norway' (*Statistics Norway*) <<https://www.ssb.no/en/statbank/table/08936/tableViewLayout1/>> accessed 30 August 2018.

region is the Lyngen Alps, a mountainous area of alpine peaks and glaciers, located to the east of Tromsø.²⁷⁴¹

D.5.1.3. Naturreservater - Nature Reserves

The highest level of protection for land is given to areas designated as nature reserves.²⁷⁴² An area can be protected as a nature reserve when it is scientifically or biologically important or because it is a rare example of that type of land.²⁷⁴³ The aim is to protect particular habitats because of their importance for the survival of flora and fauna.²⁷⁴⁴ For example, the area might provide a habitat for ‘endangered, rare or vulnerable species’, it might be a ‘special scientific interest’ or it might ‘represent a specific type of habitat’.²⁷⁴⁵ In 2018, there were 2,265 nature reserves on mainland Norway, covering an area of 6,782km².²⁷⁴⁶ Of these, 343 nature reserves, covering 1,406.79 km² are located in the three Arctic counties of Nordland, Troms and Finnmark.²⁷⁴⁷

D.5.2. Svalbard

Habitat protection on Svalbard is governed by chapter III of the Svalbard Environmental Protection Act, the same act which governs the protection of species.²⁷⁴⁸ In a similar way to mainland Norway, the government is authorised to create protected areas by way of regulation.²⁷⁴⁹ The regulations will describe the protected area and the purpose for which the protection is being imposed.²⁷⁵⁰ The regulations can also make provision for the protection of that area by prohibiting or limiting and ‘activity or access or passage’ where that behaviour would threaten the purpose of protection.²⁷⁵¹

Section 11 of the Svalbard Environmental Protection Act sets out the fundamental principles for the protection of habitat in the archipelago.²⁷⁵² The main principle is that

²⁷⁴¹ ‘Lyngen Alps Landscape Protected Area’ (*visitlyngenfjord.com*) <<https://visit-lyngenfjord.com/en/nature-based-attractions-lyngen/lyngenalps>> accessed 4 September 2018.

²⁷⁴² Bugge (n 261) 200.

²⁷⁴³ Nature Diversity Act s 37.

²⁷⁴⁴ Bugge (n 261) 200.

²⁷⁴⁵ Nature Diversity Act s 37.

²⁷⁴⁶ ‘Protected Areas - August 2018’ (n 2733).

²⁷⁴⁷ ‘Protected Area, by Region, Protected Area, Contents and Year - Mainland Norway’ (n 2740).

²⁷⁴⁸ Svalbard Environmental Protection Act 2001.

²⁷⁴⁹ *ibid* 12.

²⁷⁵⁰ *ibid*.

²⁷⁵¹ *ibid*.

²⁷⁵² *ibid* 11.

‘there shall be protected areas in Svalbard’, a statement which makes the protection of habitats in Svalbard inevitable, the only discretion being in the choice of location.²⁷⁵³ The section also identifies the types of location which will be protect in Svalbard which are those that demonstrate the whole range of different types of habitats and landscapes within Svalbard, those which have an historical or conservation value, areas which ensure the protection of ecosystems, both on land in the ocean and where the protection of the area will ‘contribute’ to the protection of ‘wilderness and untouched nature’.²⁷⁵⁴ The protected areas which demonstrate these characteristics are separated into four categories of protected areas on Svalbard, unlike in mainland Norway where there are six possible categories; although the names are similar, the definitions are slightly different.²⁷⁵⁵ The categories of protected area available for Svalbard are national parks, nature reserves, ‘protected biotopes and geotopes’ and cultural environments and all of the protected areas in Svalbard fall into one of these four categories.²⁷⁵⁶ In total there are 29 protected areas in Svalbard which cover 65% of the landmass of the archipelago and 86.5% of the territorial waters out to the 12 nautical mile mark.²⁷⁵⁷ It has been possible to protect this much land and sea because Svalbard is largely deserted and has no indigenous population living off the land. The lack of human activity on the land makes it suitable for protection as either a national park or a nature reserve and reduces or even removes entirely the need to balance environmental needs and environmental justice matters are seen in other parts of the Arctic.

D.5.3. Jan Mayen

Habitat protection on Jan Mayen takes the form of the nature reserve, established by the Regulations on the Conservation of the Jan Mayen Nature Reserve, which covers almost all of the island. Full details of the nature reserve and the habitat protection measures under the regulations can be found at D.4.2.2 above.

D.6. Case Studies

D.6.1. *Attorney General for Troms and Finnmark v A*

Judgment LA-2004-24268

Larvik District Court;

²⁷⁵³ *ibid.*

²⁷⁵⁴ *ibid.*

²⁷⁵⁵ *ibid* 16–19.

²⁷⁵⁶ *ibid.*

²⁷⁵⁷ ‘Protected Areas’ (n 2725); *Protected Areas in Svalbard* (n 2350) 6.

Agder Court of Appeal

On 29 March 2004, the Larvik District Court found the appellant guilty of a number of offences under the Svalbard Environmental Act 2001 and regulations made under the act.²⁷⁵⁸ He was sentenced to a term of 30 days imprisonment, suspended for two years and fined 5,000 NOK (or, as an alternative five days in prison).²⁷⁵⁹ The prosecutor appealed to the Court of Appeal on the basis that it was too lenient.²⁷⁶⁰

The defendant, Jarle Andhøy, a controversial Norwegian adventurer, had been the skipper of a boat which sailed north of Svalbard towards the North Pole.²⁷⁶¹ The Sysselmannen of Svalbard fined him for failing to submit a route plan and for not holding insurance.²⁷⁶² A while later however, a documentary filmed by Andhøy and aired on Norwegian television showed that Andhøy and his crew had landed on an island in the Moffen Nature Reserve where landing was prohibited and had come into close contact with a number of walrus and a number of polar bears.²⁷⁶³ One of the polar bears got within one to two metres from the crew which meant that Andhøy had been forced to shoot at the bear in order to scare it away.²⁷⁶⁴ The polar bear was not harmed but, using the documentary as evidence, Andhøy and the crew were charged with a number of environmental offences.²⁷⁶⁵ The offences included causing ‘unnecessary disturbance to humans or animals’ during access to or passage through Svalbard, luring, pursuing or seeking out a polar bear and causing it to be disturbed or exposed to danger, accessing Kong Karls Land in breach of the Regulations Concerning Prohibition of Access to Kong Karls Land and sailing into the waters of, and landing on an island in, the Moffen Nature Reserve during the summer season.²⁷⁶⁶ Andhøy pleaded guilty to all of the offences.²⁷⁶⁷

²⁷⁵⁸ *Attorney General in Troms and Finnmark v A* (n 319) 1.

²⁷⁵⁹ *ibid.*

²⁷⁶⁰ *ibid.*

²⁷⁶¹ ‘Dømt for å Ha Truet Isbjørn Og Hvalross’ *Ostlands Posten* (30 March 2004)

<<https://www.op.no/nyheter/domt-for-a-ha-truet-isbjorn-og-hvalross/s/1-85-924527>> accessed 27 May 2019.

²⁷⁶² *ibid.*

²⁷⁶³ *Attorney General in Troms and Finnmark v A* (n 319) 3.

²⁷⁶⁴ ‘Dømt for å Ha Truet Isbjørn Og Hvalross’ (n 2761).

²⁷⁶⁵ *ibid.*

²⁷⁶⁶ Svalbard Environmental Protection Act 2001 ss 12, 30, 73; Regulations of 1 July 1985 Concerning Prohibition of Access to Kong Karls Land ss I, II, V, VII; Regulations of 3 June 1983 Concerning Protection of Moffen Nature Reserve in Svalbard s IV(6), VII.

²⁷⁶⁷ ‘Dømt for å Ha Truet Isbjørn Og Hvalross’ (n 2761).

On appeal against the sentence by the prosecutor, the court found that although Andhøy had acted bravely in scaring away the polar bear, his actions were still sufficient to amount to causing a danger of ‘significant environmental damage’ which is punished more severely under section 99 of the Svalbard Environmental Protection Act.²⁷⁶⁸ It also seemed that the crew had been seeking out polar bears which is unlawful.²⁷⁶⁹ The Court therefore felt that the suspended prison term was adequate but increased the fine to 25,000 NOK (or 20 days in prison as an alternative).²⁷⁷⁰ They reached this conclusion having taken into account the court’s belief that the boat had sought out polar bear encounters for the purposes of filming a documentary, that he had a commercial interest in the expedition and that, although he was fairly young, he was an experienced skipper who should have known better.²⁷⁷¹

D.6.2. Nordland Public Prosecutor’s Office v A

Judgment LH-2011-37324, HR-2011-2334-U

Ofoten District Court;

Hålogaland Court of Appeal;

Norwegian Supreme Court

On 28 January 2011, the Ofoten District Court acquitted A of crimes under the Marine Resources Act 2008.²⁷⁷² The defendant was accused of shooting common minke whales with a harpoon grenade in such a way that it did not detonate on a number of occasions during the 2009 hunting season.²⁷⁷³

A was a commercial fisherman and whaler from northern Norway.²⁷⁷⁴ He hunted primarily for small whales, up to about 800kg in weight, in the calm, coastal waters of the Vestfjord.²⁷⁷⁵ On 1 July 2009, an inspector from the Norwegian Directorate of Fisheries boarded A’s boat following a report that A had been using harpoons with their grenades

²⁷⁶⁸ *Attorney General in Troms and Finnmark v A* (n 319) 2–3.

²⁷⁶⁹ *ibid* 3.

²⁷⁷⁰ *ibid* 2–3.

²⁷⁷¹ *ibid*.

²⁷⁷² *Nordland Public Prosecutor’s Office v A* (n 319) 1.

²⁷⁷³ *ibid*.

²⁷⁷⁴ *ibid* 2.

²⁷⁷⁵ *ibid* 3.

removed.²⁷⁷⁶ The inspector found that the defendant had shot 26 common minke whales using 14 harpoon grenades; in 12 cases, the grenade had failed to detonate.²⁷⁷⁷ The inspector believed that A had been shooting the whales in such a way that the lack of detonation was deliberate and a prosecution was brought as this would be a breach of section 2 of the Regulation on the Practice of Catching a Minke Whale 2000 which is an offence under section 61 of the Marine Resources Act 2008.²⁷⁷⁸ A explained that he was not deliberately causing the harpoons not to detonate but instead was aiming to hit the whales in the head or neck region because hitting the whale in this area was the best way to ensure that it was killed instantly.²⁷⁷⁹ He believed that the advice of the Directorate of Fisheries, that whales should be shot in the side, was incorrect for small whales shot at close range because the harpoon would go right through the whale before it detonated which may mean that the whale would not die instantly, and it also risked damaging the meat.²⁷⁸⁰ As long as a grenade did not explode it could be reused, which, given that grenades are expensive, saved a considerable amount of money.²⁷⁸¹

The Court of Appeal heard evidence from expert witnesses who said that they had never been able to reuse a harpoon grenade for a second time but the court also noted that these whalers had generally caught large whales in the open sea, rather than small whales in inshore waters. The Court of Appeal decided that it was ‘beyond doubt’ that A had altered the harpoons so that they did not explode but that the question was whether or not this was a breach of the regulations which required whalers only to use approved harpoons.²⁷⁸² The majority held that the altered harpoon did not conform to the regulations and neither the fact that it had still caused the instantaneous death of the whales nor the argument that the rules were not appropriate for the type of whaling carried out by A was an adequate defence.²⁷⁸³ The minority were of the opinion that the provisions of the Regulation on the Practice of Catching a Minke Whale 2000 did not allow for the defendant to be convicted

²⁷⁷⁶ *ibid* 2.

²⁷⁷⁷ *ibid*.

²⁷⁷⁸ *ibid* 1; Marine Resources Act 2008 s 61; Minke Whale Regulations 2000 s 2.

²⁷⁷⁹ *Nordland Public Prosecutor’s Office v A* (n 319) 3.

²⁷⁸⁰ *ibid*.

²⁷⁸¹ *ibid*.

²⁷⁸² *ibid* 4.

²⁷⁸³ *ibid* 5.

because he had used an approved harpoon and had complied with the requirement to kill the whales instantly.²⁷⁸⁴

The conviction was upheld and the defendant was fined 10,000 NOK or an alternative of 20 days' imprisonment. This fine took into account that the defendant had already paid two fines in relation to the same whaling expeditions, namely a 5,000 NOK fine in relation to the catch log and a had been subject to a confiscation estimated at a value of 161,040 NOK.²⁷⁸⁵ He had also been excluded from whaling for the entire 2010 whaling season and had waited a significant amount of time to be charged in relation to the offence in issue.²⁷⁸⁶ The defendant was not ordered to pay costs.²⁷⁸⁷

The defendant sought an appeal to the Norwegian Supreme Court but permission to appeal was denied.

²⁷⁸⁴ *ibid*; Minke Whale Regulations 2000 s 2.

²⁷⁸⁵ *Nordland Public Prosecutor's Office v A* (n 319) 2, 5.

²⁷⁸⁶ *ibid*.

²⁷⁸⁷ *ibid* 5.

E. Sweden

E.1. History and Geography of Arctic Sweden

The modern Norrbotten County covers about two thirds of the traditional Swedish Lapland, a province which covered the northernmost parts of both Sweden and Finland, and all of their Arctic regions. Until the late medieval period, the region was fairly deserted, populated only by nomadic Sámi reindeer herders. It was considered to be terra nullius and belonged to no one. It was a desire to bring Christianity to the northern region at the time of the crusades that saw Lapland being populated by Swedish and Finnish people and a claim being made to the land, by the Swedish King in about 1277.²⁷⁸⁸ In 1397, Sweden, with Lapland, became part of the Kalmar Union with Norway, Denmark and Finland in 1397 but in 1523 it separated from the union, taking Finland with it.²⁷⁸⁹ The seventeenth century saw Sweden gain considerable power within Europe but Lapland remained a sparsely populated region, described by Johannes Scheffer in 1674 as a place where ‘hunger, cold and solitude are the enemies which engage all the fortitude of [the] People’.²⁷⁹⁰

In 1809, the eastern section of Lapland ceded, with the rest of Finland to Russia to form the Grand Duchy of Finland, at which time the traditional region of Lapland was divided into two with one half in Sweden and the other in Finland.²⁷⁹¹ At the same time, the Swedish part of Lapland was split into the northern Norrbotten County and the southern Västerbotten County. In 1814, Sweden entered into union with Norway, and the two countries were ruled by the Swedish monarchy until Norway declared its independence in 1905.²⁷⁹² Sweden remained neutral throughout both world war one and world war two, although they allowed the German army to use Swedish railways for troop movements between Germany, Norway and Russia and traded iron ore from Swedish Lapland with Germany. In the post war era, Sweden created a welfare state with free education to

²⁷⁸⁸ Johannes Scheffer (1621-1679), *The History of Lapland Wherein Are Shewed the Original, Manners, Habits, Marriages, Conjurations, &c. of That People. Written by John Scheffer, Professor of Law and Rhetoric at Upsal in Sweden, At the Theater in Oxford, George West & Amos Curtein, 1674* (1674) 62 <<http://archive.org/details/SchefferHistoryofLaplandOxford1674Nbo>> accessed 7 January 2019.

²⁷⁸⁹ Tony Griffiths, *Scandinavia* (2nd edn, Wakefield Press 1993) 3.

²⁷⁹⁰ Johannes Scheffer (1621-1679) (n 2788), preface.

²⁷⁹¹ Thomas Derry, *A History of Scandinavia* (George Allen & Unwin Ltd 1979) 207–208.

²⁷⁹² *ibid* 212; Larsen (n 2212) 484, 495.

university level, universal healthcare and the provision of affordable housing for all; the country joined the European Union in 1995.

Although Sweden has land north of the Arctic Circle, most of that land has a sub-Arctic climate, albeit one with long, harsh winters. The tree line hugs Sweden's north western border and the 10° isotherm passes way to the north of the Swedish Norwegian border because the Swedish Arctic summers are fairly warm.²⁷⁹³ The northerly areas experience polar night and midnight sun giving a long winter and a short but highly productive summer growing season.²⁷⁹⁴ In the winter, temperatures are about -10°C but can plunge to -20°C but while this is warmer than many Arctic places, the Swedish winter is characterised by significant amounts of snow with snow cover lasting for up to 225 days in some years.²⁷⁹⁵ Summer temperatures are much milder, often reaching up to 15°C and occasionally much higher.²⁷⁹⁶

The Arctic landscape in Sweden is a mix of mountainous areas, rolling hills and evergreen forests, much of it untamed wilderness. Glaciers in the high mountains feed mighty rivers which in turn drain into deep, icy lakes.²⁷⁹⁷ The highest mountains in Sweden, Mount Kebne and Mount Sarek are both found north of the Arctic Circle, with the latter forming part of the Sarek National Park which was one of the first national parks to be designated in Europe and is now part of the Laponia World Heritage Site.²⁷⁹⁸

Norrboten County remains sparsely populated today.²⁷⁹⁹ Despite taking up almost one quarter of Sweden's total landmass, it is home to barely 250,000 of Sweden's ten million

²⁷⁹³ 'Arctic Map' (*National Snow and Ice Data Centre*)

<https://nsidc.org/sites/nsidc.org/files/images//arctic_map.gif> accessed 7 January 2019.

²⁷⁹⁴ 'Lapland' (*Encyclopedia Britannica*) <<https://www.britannica.com/place/Lapland>> accessed 8 January 2019.

²⁷⁹⁵ 'Climate and Daylight' (*Nordic Visitor Lapland*) <<https://lapland.nordicvisitor.com/travel-guide/information/climate-and-daylight/>> accessed 8 January 2019; NRK og Meteorologisk institutt, 'Weather Statistics for Lapland' (*yr.no*) <<https://www.yr.no/place/Sweden/Other/Lapland>> accessed 8 January 2019.

²⁷⁹⁶ NRK og Meteorologisk institutt (n 2795).

²⁷⁹⁷ 'Lapland' (n 2794).

²⁷⁹⁸ Swedish National Parks Act 1909; 'Lapland' (n 2794); 'Laponia World Heritage Site' (*Laponia*) <<https://laponia.nu/en/world-heritage-site/>> accessed 8 January 2019.

²⁷⁹⁹ 'Lapland' (n 2794).

people.²⁸⁰⁰ The rural population has been falling in recent years but Luleå, the largest town in Norrbotten, located a little south of the Arctic Circle is increasing in size.²⁸⁰¹ In Luleå, key industries are the steelworks and technological research, led by the Luleå University of Technology, Sweden's northernmost university.²⁸⁰² Outside of the cities, the long winter months limit the amount of agriculture which is possible to the growing of potatoes, rye and barley but mining, particularly for iron ore, forestry, and the production of hydroelectric power are all profitable industries within the region.²⁸⁰³ Just south of the Arctic Circle, Svevind AB are building what will be the largest windfarm in Europe.²⁸⁰⁴ Alongside the industry, tourism is quickly becoming an important source of income for Arctic Sweden, offering, as it does, the attractions of midnight sun, northern lights, wilderness experiences and the iconic ice hotel, created new each year in the village of Jukkasjärvi.²⁸⁰⁵

Sámi culture and tradition remain an important influence on Swedish Lapland. The Sámi people have lived a nomadic lifestyle in Swedish Lapland for thousands of years, practising their traditional art of reindeer herding.²⁸⁰⁶ Sámi people have had a monopoly on the right to herd reindeer in Sweden since the first Reindeer Grazing Act of 1886, although this privilege came with the removal of all Sámi claims to land ownership.²⁸⁰⁷ Today, Sámi reindeer herding practice is regulated by the Rennäringslagen or Reindeer Husbandry Act of 1971.²⁸⁰⁸ This act gives those are members of a Sameby or Sámi reindeer herding village the right to herd reindeer and to hunt and fish.²⁸⁰⁹ Each Sameby acts as both a geographical

²⁸⁰⁰ *ibid*; Thomas Nilsen, 'Cities Are Population Winners in Northern Sweden' *The Independent Barents Observer* (23 February 2017) <<https://thebarentsobserver.com/en/life-and-public/2017/02/cities-are-population-winners-northern-sweden>> accessed 8 January 2019.

²⁸⁰¹ Nilsen (n 2800).

²⁸⁰² 'Luleå University of Technology' <<https://www.ltu.se/?l=en>> accessed 8 January 2019; 'Invest in Norrbotten' <<http://www.investinnorrbotten.se/>> accessed 8 January 2019.

²⁸⁰³ 'Lapland' (n 2794).

²⁸⁰⁴ 'Green Electricity Grows Stronger' <<http://www.investinnorrbotten.se/business-opportunities/why-energy/svevind-har-koll-pa-hur-vindarna-blaser/>> accessed 8 January 2019.

²⁸⁰⁵ 'Lapland' (n 2794); 'Ice Hotel' (*Ice Hotel*) <<https://www.icehotel.com/about-icehotel/>> accessed 8 January 2019; 'Swedish Lapland' (*Swedish Lapland*) <<https://www.swedishlapland.com/>> accessed 8 January 2019.

²⁸⁰⁶ 'Sámi – Sweden' (*Reindeer Herding*) <<http://reindeerherding.org/herders/sami-sweden/>> accessed 8 January 2019.

²⁸⁰⁷ Ulf Morkenstam, 'Indigenous Peoples and the Right to Self Determination: The Case of the Swedish Sámi People' (2005) XXV *The Canadian Journal of Native Studies* 437

<http://www3.brandonu.ca/cjns/25.2/cjns25no2_pg433-461.pdf> accessed 8 January 2019.

²⁸⁰⁸ Act on Reindeer Husbandry (Rennäringslag) (1971:437).

²⁸⁰⁹ *ibid*; 'Reindeer Herding' <<http://reindeerherding.org/herders/sami-norway/>> accessed 24 August 2018.

area in which herding can take place and an ‘economic association’, representing the interests of its members.²⁸¹⁰ There are thought to be between 20,000 and 40,000 Sámi people living in Sweden, of whom about 10% are involved in reindeer husbandry.²⁸¹¹ As well as being represented by their Sameby, Sámi interests are represented by the Sámi Parliament to which Sámi people elect public officials.²⁸¹²

E.2. Government and Legal System

E.2.1. Government

Sweden has a constitutional monarchy. The Head of State is the King, currently Carl XVI Gustaf, but his role is significantly more limited than in the past. The Constitution of Sweden limits the authority of the King and vests power in the Riksdag and the Regeringen.²⁸¹³ The Riksdag (parliament) is the body with legislative authority in Sweden.²⁸¹⁴ It is a unicameral legislature with 349 representatives who are elected by means of proportional representation, each serving a term of four years.²⁸¹⁵ Executive power in Sweden is held by the Regeringen which is the Swedish cabinet.²⁸¹⁶ The Regeringen is led by a Statsminister (Prime Minister) who is appointed by the Speaker of the Riksdag following a vote by its members. The Statsminister then selects the remaining ministers to form the Regeringen.²⁸¹⁷

E.2.2. Legal System

Sweden’s legal system is classified as a Nordic legal system which is a type of civil law.²⁸¹⁸ The country generally relies on statutory law but it does not have a civil code and it is gradually moving closer to a common law system, especially in its courts.²⁸¹⁹ Increasingly, cases decided in the Supreme Court and the Supreme Administrative Court provide guidance to lower courts and in this way act as precedents.²⁸²⁰

²⁸¹⁰ ‘Reindeer Herding’ (n 2809).

²⁸¹¹ ‘Sámi in Sweden’ (*sweden.se*, 14 December 2015) <<https://sweden.se/society/sami-in-sweden/>> accessed 8 January 2019.

²⁸¹² ‘Sámi Parliament’ (*Sametinget*) <<https://www.sametinget.se/9690>> accessed 8 January 2019.

²⁸¹³ Regeringsformen (Constitution of Sweden - Instrument of Government) 1974.

²⁸¹⁴ *ibid.*

²⁸¹⁵ *ibid.*

²⁸¹⁶ *ibid.*

²⁸¹⁷ *ibid.*

²⁸¹⁸ Zweigert and Kötz (n 99) 276–285.

²⁸¹⁹ Kritzer, *Legal Systems of the World* (n 742) 1565.

²⁸²⁰ *ibid.*

E.2.2.1. Sources of Law

Sources of law in Sweden include the constitutional laws, followed by legislation and then regulations made under the authority of legislation.²⁸²¹ These are published in the Svensk Författningssamling (Swedish Code of Statutes).²⁸²² When interpreting laws within Sweden both case precedents from the Supreme Court and the Supreme Administrative Court and the Riksdag's preparatory materials are used.²⁸²³ Finally, legal literature prepared by academics and other commentaries are used.²⁸²⁴

The Grundlagarna (basic laws) or the Swedish Constitution is formed of four documents.²⁸²⁵ The Regeringsformen (Instrument of Government) was first drafted in 1809.²⁸²⁶ The current version is from 1975 but it was substantially amended in 2011.²⁸²⁷ It sets out the way in which governmental power is to be exercised and grants a number of rights to the Swedish people. The other documents which form the Constitution are the Successionsordningen (Act of Succession), the Tryckfrihetsförordningen (Freedom of the Press Act), and the Yttrandefrihetsgrundlagen (Fundamental Law on Freedom of Expression).²⁸²⁸ The Riksdagsordningen (Riksdag Act) which is not a formal part of the Constitution is nevertheless considered to be a constitutional act.²⁸²⁹ The Riksdagsordningen governs the way in which the Swedish parliament operates.²⁸³⁰

Unlike in common law countries, one of the accepted sources of law in Sweden is the preparatory works produced while the acts are being drafted.²⁸³¹ The Swedish tendency is

²⁸²¹ Ingrid Kabir and Sofia Sternberg, 'Swedish Law and Legal Materials - GlobalLex' (*GlobalLex*, 1 August 2017) <<https://www.nyulawglobal.org/globalex/Sweden1.html#sourcesoflaw>> accessed 25 July 2019.

²⁸²² *ibid.*

²⁸²³ *ibid.*

²⁸²⁴ *ibid.*

²⁸²⁵ Kritzer, *Legal Systems of the World* (n 742) 1562.

²⁸²⁶ *ibid.*

²⁸²⁷ Regeringsformen (Constitution of Sweden - Instrument of Government) 1974.

²⁸²⁸ Kritzer, *Legal Systems of the World* (n 742) 1562; Magnus Isberg and Ray Bradfield, *The Constitution of Sweden: The Fundamental Laws and the Riksdag Act* (Sverige Riksdagen 2012); 'Grundlagarna' (*Regeringskansliet*, 4 November 2014) <<https://www.regeringen.se/sa-styrs-sverige/det-demokratiska-systemet-i-sverige/grundlagarna/>> accessed 21 July 2019; 'The Constitution' (*Regeringskansliet*, 18 February 2015) <<https://www.government.se/how-sweden-is-governed/the-constitution/>> accessed 21 July 2019.

²⁸²⁹ Isberg and Bradfield (n 2828); Riksdagsordning (2014:801).

²⁸³⁰ Isberg and Bradfield (n 2828); Riksdagsordning (2014:801).

²⁸³¹ Staffan Westerlund, 'Sweden', *Encyclopaedia of Environmental Law* (Wolters Kluwer Law & Business 2007) 33.

for legislation to be worded fairly broadly rather than to provide detailed definitions.²⁸³² This leads to the need for the acts to be interpreted and the preparatory works are often used in this interpretative process.²⁸³³ The problem with this is that it leads to legal uncertainty because the real meaning of an act may be hidden within the preparatory works rather than easily accessible to lawyers, lawmakers and the general population.²⁸³⁴ While preparatory works in Sweden were fairly good quality until 1973, recent preparatory works have been found to be poorly edited, contradictory and, in the case of the Environmental Code, were drafted on the basis that the final law would look quite different to the code which was eventually passed.²⁸³⁵ This can make the preparatory works a confusing source of law.²⁸³⁶

E.2.2.2. Courts

There are three separate court systems within Sweden, the ordinary courts, the administrative courts and the special courts.²⁸³⁷ The special courts deal with matters relating to their own specialism and include the Environmental Courts. The administrative courts handle matters between the state and private individuals and the ordinary courts deal with civil and criminal cases.

Within each system, there are three tiers of court.²⁸³⁸ At first instance cases are heard by the Tingsrätter in the ordinary court system and the Länsrätter in the administrative court system.²⁸³⁹ Trials in these courts, which are located throughout the country are generally heard by panels of three judges in civil cases, one judge assisted by a panel of three lay assessors in criminal and family matters, and also in the administrative courts.²⁸⁴⁰ Appeals are to the Hovrätter in the ordinary courts and the Kammarrätter in the administrative courts. In the Arctic region of Sweden the appeal court within the ordinary system is the Hovrätten för Övre Norrland (Court of Appeal for Northern Norrland) in Umeå.²⁸⁴¹ The

²⁸³² *ibid.*

²⁸³³ *ibid.*

²⁸³⁴ *ibid* 34.

²⁸³⁵ *ibid.*

²⁸³⁶ *ibid.*

²⁸³⁷ Kritzer, *Legal Systems of the World* (n 742) 1565.

²⁸³⁸ *ibid* 1565–1566.

²⁸³⁹ *ibid.*

²⁸⁴⁰ *ibid.*

²⁸⁴¹ 'Hovrätten För Övre Norrland' (*Sveriges Domstolar*, 27 November 2005)

<<http://www.hovrattenovrenorrland.domstol.se/Funktioner/English/The-Swedish-courts/Court-of-appeal/>> accessed 25 July 2019.

final appeal in the ordinary court system is to the Högsta domstolen or the Supreme Court.²⁸⁴² The court sits in Stockholm and its 16 judges hear cases in panels of five unless they are likely to overturn their own precedent.²⁸⁴³ Cases can only be heard when leave to appeal has been granted on the basis that the case is likely to provide a precedent which would give guidance to the lower courts.²⁸⁴⁴ In the administrative courts, the final appeal is to the Regeringsrätt or the Supreme Administrative Court.²⁸⁴⁵ Like with the Supreme Court, appeals to the Supreme Administrative Court require leave to appeal which is only granted where the case may lead to a precedent.²⁸⁴⁶

E.2.2.3. Environmental Courts

Sweden's environmental courts are considered to be part of the system of special courts which exist alongside the ordinary courts and the administrative courts.²⁸⁴⁷ At first instance there are five Mark och Miljööverdomstolarna (Land and Environment Courts) which deal with environmental matters such as permitting, environmental protection and planning matters.²⁸⁴⁸ Each of the five courts has jurisdiction within its part of the country with the court at Umeå having jurisdiction over the Northern Norrland area which includes the whole of the Arctic region of Sweden.²⁸⁴⁹ Appeals from the Land and Environment Courts are to the Mark och Miljööverdomstolen (Land and Environment Court of Appeal) which is based out of the Court of Appeal at Svea but has jurisdiction across the whole country.²⁸⁵⁰ Appeals from the Land and Environment Court of Appeal go to the ordinary Supreme Court.²⁸⁵¹

²⁸⁴² 'The Supreme Court' (*Sveriges Domstolar*, 27 November 2005)

<<http://www.domstol.se/Funktioner/English/The-Swedish-courts/The-Supreme-Court/>> accessed 23 July 2019; Kritzer, *Legal Systems of the World* (n 742) 1565.

²⁸⁴³ Kritzer, *Legal Systems of the World* (n 742) 1565.

²⁸⁴⁴ 'The Supreme Court' (n 2842); Kritzer, *Legal Systems of the World* (n 742) 1565.

²⁸⁴⁵ Kritzer, *Legal Systems of the World* (n 742) 1565.

²⁸⁴⁶ *ibid*; 'The Supreme Administrative Court' (*Sveriges Domstolar*, 27 November 2005)

<<http://www.domstol.se/Funktioner/English/The-Swedish-courts/The-Supreme-Administrative-Court/>> accessed 25 July 2019.

²⁸⁴⁷ Thews, Höjding and Jansson (n 264) 10–11.

²⁸⁴⁸ *ibid*; 'Land and Environment Courts' (*Sveriges Domstolar*, 27 May 2011)

<<http://www.domstol.se/Funktioner/English/The-Swedish-courts/District-court/Land-and-Environment-Courts/>> accessed 16 November 2018.

²⁸⁴⁹ 'Land and Environment Courts' (n 2848).

²⁸⁵⁰ Thews, Höjding and Jansson (n 264) 10–11; Ulf Bjällås, 'Sweden's Environmental Courts' (2010) 3 *Journal of Court Innovation* 8.

²⁸⁵¹ Thews, Höjding and Jansson (n 264) 11.

E.3. Arctic Wildlife in Sweden

With a sub-Arctic climate and no Arctic coastline, the species found within the Swedish Arctic differ to those found in Norway and further afield. There are no marine mammals and few marine birds venture as far inland as Sweden.²⁸⁵² Sweden's Arctic region is, however, wild and remote which makes it the perfect habitat for terrestrial animals, migrating terrestrial birds and delicate Arctic and sub-Arctic flora. The larger animal species found in Arctic Sweden include the brown bear, wolverine, lynx, Arctic fox and otter; lone wolves will sometimes venture this far north but the main wolfpacks in Sweden are located much further south.²⁸⁵³ The Eurasian elk, a subspecies of moose is common throughout the Swedish Arctic and are widely hunted for their meat and for sport.²⁸⁵⁴ Reindeer are also common, although the reindeer found in Sweden are herded by Sámi people and are not wild like the North American caribou.²⁸⁵⁵ Smaller animals found in the Swedish Arctic include the mountain hare, lemmings, marten and ermine.²⁸⁵⁶

The cold winter climate and long period of snow cover mean that there are few amphibious species and few reptiles. The only reptile found this far north is the viviparous lizard or common lizard and amphibious species are limited to the moor frog although common frogs, common toads and vipers are found in the south of the county.²⁸⁵⁷ For the same reason, there are fewer insect species in the Arctic than further south in Sweden but species of beetle, dragonfly, butterfly, moth and plenty of mosquitoes can be found.²⁸⁵⁸

Sweden's Arctic region provides a variety of different habitats for wild bird species. The lush forests are home to willow warblers, northern hawk owls, bramblings and the three-toed woodpecker while on the Arctic heaths species such as capercaillie, Lapland buntings, golden plovers, willow ptarmigan and Snowy owls can be found.²⁸⁵⁹ Water birds such as

²⁸⁵² Chester (n 24).

²⁸⁵³ *ibid* 71, 73, 80, 85, 87, 91; 'Dispens fridlysta arter' <<https://www.lansstyrelsen.se/norrboten/lantbruk-och-landsbygd/natur-och-vilda-djur/verksamhet-i-natur/dispens-fridlysta-arter.html>> accessed 9 January 2019.

²⁸⁵⁴ Chester (n 24) 64–65.

²⁸⁵⁵ 'Reindeer Herding' (n 2809).

²⁸⁵⁶ 'Kiruna Check List' (*iNaturalist.org*) <https://www.inaturalist.org/check_lists/47669-Kiruna-Check-List> accessed 9 January 2019; 'Serri Nature Reserve'

<https://www.lansstyrelsen.se/download/18.1dfa69ad1630328ad7c1c7ad/1526067825158/Serri_eng_120605_webb.pdf> accessed 9 January 2019.

²⁸⁵⁷ Chester (n 24) 399–400; 'Dispens fridlysta arter' (n 2853).

²⁸⁵⁸ Chester (n 24) 401–424; 'Dispens fridlysta arter' (n 2853).

²⁸⁵⁹ Chester (n 24) 287, 364.

teal, tufted ducks and Bean geese use wetlands and the vast network of lakes, ponds and marshes.²⁸⁶⁰ The Swedish Arctic also hosts many birds of prey, most notably the golden eagle which preys on ptarmigan, reindeer and mountain hare on the Swedish mountain tundra.²⁸⁶¹

The diverse range of habitats found in northern Sweden, from deep forests, teeming mires and vast wetlands to high Alpine regions, Arctic grasslands and mountain tundra, provides space for a wide range of plants to thrive. The forest areas are predominantly taiga or boreal forests which are made up from spruce, pine and other coniferous trees but some parts of the region are covered in mountain birch forests, within which ‘lie beautiful meadows with tall globeflowers, wolf’s-bane, crane’s-bill and red campion’.²⁸⁶² The high mountain regions are mostly rocky and barren although some hardy mosses and lichens survive the cold and the wind.²⁸⁶³ In the Alpine heaths, lush grasslands and delicate Arctic flowers such as the Arctic woodrush (*luzula arctica*), Lapland buttercup (*ranunculus lapponicus*) and Scandinavian primrose (*primula scandinavica*).²⁸⁶⁴

E.4. Species Protection

E.4.1. Environmental Objectives

In 1999, when the Swedish government reviewed and updated the environmental legislation in Sweden with the introduction of the Environmental Code, the Riksdag adopted a system of miljömål or National Environmental Objectives.²⁸⁶⁵ The National Environmental Objectives are non-binding but act as aspirational goals which influence

²⁸⁶⁰ ‘Wildlife of the Sarek National Park’ (*Sveriges Nationalparker*) <<http://www.nationalparksofsweden.com/choose-park---list/sarek-national-park/national-park-fact/wildlife/>> accessed 9 January 2019.

²⁸⁶¹ Jesper Nyström and others, ‘Golden Eagles on the Swedish Mountain Tundra – Diet and Breeding Success in Relation to Prey Fluctuations’ (2006) 83 *Ornis Fennica* 145.

²⁸⁶² ‘Plant Life of the Sarek National Park’ (*Sveriges Nationalparker*) <<http://www.nationalparksofsweden.com/choose-park---list/sarek-national-park/national-park-fact/plant-life/>> accessed 9 January 2019; ‘Skyddad Natur’ <<http://skyddadnatur.naturvardsverket.se/>> accessed 17 December 2018.

²⁸⁶³ ‘Plant Life of the Sarek National Park’ (n 2862).

²⁸⁶⁴ ‘Skyddad Natur’ (n 2862).

²⁸⁶⁵ Thews, Höjding and Jansson (n 264) 15–16; Lars Emmelin and Aleh Cherp, ‘National Environmental Objectives in Sweden: A Critical Reflection’ (2016) 123 *Journal of Cleaner Production* 194; Lennart J Lundqvist, *Sweden and Ecological Governance: Straddling the Fence* (Manchester University Press 2004) <<http://www.oapen.org/search?identifier=341376>> accessed 9 January 2019; Swedish Environmental Quality Objectives – An Environmental Policy for a Sustainable Sweden (Government Bill 1997/98:145).

policy and decision making at a governmental level and throughout Swedish society.²⁸⁶⁶ There are three types of environmental objectives: the generational goal, the environmental quality objectives and the milestone targets.²⁸⁶⁷ The generational goal describes the environmental changes which were considered to be necessary in Sweden within one generation, or twenty years, of the goal's adoption.²⁸⁶⁸ It states that the aim is 'to hand over to the next generation a society in which the major environmental problems in Sweden have been solved, without increasing environmental and health problems outside Sweden's borders'.²⁸⁶⁹ The goal covers a number of different types of environmental concern including the conservation of biodiversity and the recovery of ecosystems.²⁸⁷⁰ Supporting the generational goal are a series of sixteen environmental quality objectives.²⁸⁷¹ These describe, in more detail, what the environment will look like when the generational goal is met.²⁸⁷² There is one environmental quality objective which specifically deals with plants and animals and which has as its aim, a 'rich diversity of plant and animal life'.²⁸⁷³ It calls the preservation and sustainable use of biodiversity, the protection of habitats and for the long-term survival of species.²⁸⁷⁴ Finally, the milestone targets are intermediate steps which need to be taken in order to ensure that the generational goal is met on time.²⁸⁷⁵ For biodiversity protection, the milestone targets include a commitment to improve public education on the importance of biodiversity and include it in governmental, economic and societal decision making by 2018, for a mapping and monitoring project about genetic diversity to be started by 2020 and for specified amounts of land, water and sea to be protected by 2020.²⁸⁷⁶ Progress towards meeting the generational goal has been slow and it appears that many, if not most, of the targets will be missed.

²⁸⁶⁶ Swedish Environmental Quality Objectives – An Environmental Policy for a Sustainable Sweden (Government Bill 1997/98:145); Thews, Höjding and Jansson (n 264) 15–16.

²⁸⁶⁷ Thews, Höjding and Jansson (n 264) 15–16.

²⁸⁶⁸ *ibid.*

²⁸⁶⁹ Swedish Environmental Quality Objectives – An Environmental Policy for a Sustainable Sweden (Government Bill 1997/98:145).

²⁸⁷⁰ Thews, Höjding and Jansson (n 264) 15–16.

²⁸⁷¹ *ibid.*

²⁸⁷² *ibid.*

²⁸⁷³ Swedish Environmental Quality Objectives – An Environmental Policy for a Sustainable Sweden (Government Bill 1997/98:145).

²⁸⁷⁴ *ibid.*

²⁸⁷⁵ Thews, Höjding and Jansson (n 264) 15–16.

²⁸⁷⁶ Swedish Environmental Quality Objectives – An Environmental Policy for a Sustainable Sweden (Government Bill 1997/98:145); 'Milestone Targets' (*Swedish Environmental Protection Agency*) <<http://www.swedishepa.se/Environmental-objectives-and-cooperation/Swedens-environmental-objectives/Milestone-targets/>> accessed 14 January 2019.

E.4.2. Red List

Sweden publishes a red list every five years which provides details about the level of threat of extinction posed to many of the species of flora and fauna found within Sweden.²⁸⁷⁷ The red list uses similar criteria to the IUCN's global red list and categorises species as regionally extinct, critical, endangered, vulnerable, near threatened, of least concern and data deficient. The list is produced by the Swedish Species Information Service, a department of the Swedish Agricultural University, which was commissioned by the Swedish Parliament to undertake the work.²⁸⁷⁸ The list is compiled primarily by experts and well-informed amateurs in biology and ecology who sit on committees according to their expertise.²⁸⁷⁹ The most recent edition was published in 2015 and the next edition is due out in 2020.²⁸⁸⁰ The 2015 edition found that the rate of biodiversity loss within Sweden had stabilised, with 4,273 species included on the list from a total of 21,600 species assessed.²⁸⁸¹ Arctic species which are red listed include the polaris fritillary butterfly which is listed as endangered, the longstalk starwort, a vascular plant which is vulnerable and the lesser white fronted goose which is critically endangered.²⁸⁸²

E.4.3. European Union Directives

When Sweden joined the European Union in 1995, it became subject to the various European environmental directives.²⁸⁸³ In relation to species protection, the two relevant directives are the Council Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats and Species Directive) and the Directive of the European Parliament and of the Council on the Conservation of Wild Birds (Birds Directive).²⁸⁸⁴ The latter protects bird species, particularly migratory birds throughout Europe on the basis that birds which reside in multiple territories are a common asset and the former seeks to create

²⁸⁷⁷ *The 2015 Red List* (n 527).

²⁸⁷⁸ Swedish Species Information Centre, 'The Swedish Species Information Centre' (*Artdatabanken*) <<https://www.artdatabanken.se/en/>> accessed 7 May 2019.

²⁸⁷⁹ Swedish Species Information Centre, 'Artdatabankens Expertkommitt er' (n 527).

²⁸⁸⁰ *The 2015 Red List* (n 527).

²⁸⁸¹ Swedish Species Information Centre, 'The 2015 Red List - Summary' (*Artdatabanken*, 2015) <<https://www.artdatabanken.se/en/the-red-list/the-2015-red-list---summary/>> accessed 7 May 2019.

²⁸⁸² *The 2015 Red List* (n 527); Swedish Species Information Centre, 'Artfakta' (*Artdatabanken*, 2015) <<http://artfakta.artdatabanken.se/>>.

²⁸⁸³ Thews, H jding and Jansson (n 264) 5; Birds Directive (2009/147/EC); Habitats and Species Directive (92/43/EEC).

²⁸⁸⁴ Habitats and Species Directive (92/43/EEC); Birds Directive (2009/147/EC).

a network of protected habitats throughout Europe and to provide protection for endangered and threatened species.²⁸⁸⁵

E.4.3.1. Habitats and Species Directive

The Habitats and Species Directive is the principal tool used by the European Union to protect species and the habitats on which they rely. It has a broad and ambitious remit, with its main aim ‘being to promote the maintenance of biodiversity’ within Europe. It does this in two ways, first by protecting the habitats on which species rely and second by protecting species directly. The aim of the Directive is to ensure that species and habitats are maintained at a ‘favourable conservation status’ or that the species or habitat is restored to such a status where the population level has fallen or the habitat has been destroyed.²⁸⁸⁶ The Directive requires the Member States to implement its provisions within their national law.

Habitat protection under the Habitats and Species Directive takes the form of the creation of an ‘ecological network’ of protected habitats across Europe.²⁸⁸⁷ The Directive required the Member States to identify sites within their countries which contained examples of the types of habitats listed in annex I and of the habitats of the species listed in annex II.²⁸⁸⁸ These sites were to be designated as Special Areas of Conservation and would form part of the Natura 2000 network.²⁸⁸⁹ The Directive required the identification of the relevant sites to take place by 5 June 2004 but it took until about 2016 for the network to be largely completed on land and there is still work to do in the marine environment.²⁸⁹⁰ Having designated the sites, Member States are now required to ensure that the sites receive a high level of protection.²⁸⁹¹ This protection includes taking all ‘necessary conservation measures’ such as adopting management plans, legislation, regulations and contractual agreements and undertaking impact assessments to ensure that the site is conserved.²⁸⁹² Member States are obliged to manage the designated sites in a way which prevents their

²⁸⁸⁵ Habitats and Species Directive (92/43/EEC); Birds Directive (2009/147/EC).

²⁸⁸⁶ Habitats and Species Directive (92/43/EEC), article 2(2).

²⁸⁸⁷ *ibid*, article 3.

²⁸⁸⁸ *ibid*, article 3.

²⁸⁸⁹ *ibid*, article 3.

²⁸⁹⁰ ‘Natura 2000 FAQs’ (*European Commission Environment*)

<http://ec.europa.eu/environment/nature/natura2000/faq_en.htm> accessed 21 December 2018.

²⁸⁹¹ Rodgers (n 265) 213.

²⁸⁹² Habitats and Species Directive (92/43/EEC), article 6(1), (3).

ecological deterioration and which ensures that the species for which the areas were designated are not disturbed.²⁸⁹³ The Commission has published guidance indicating that it considers that as well as the obligation to avoid deterioration, article 6 imposes a positive obligation to restore Special Areas of Conservation to, and maintain them at, a ‘favourable conservation status’.²⁸⁹⁴

Species protection under the Habitats and Species Directive is concerned with the protection of a list of particular species of plants and animals which have been identified as at risk; it is not aimed at preventing harm to all species found within the Europe Union.²⁸⁹⁵ The species were selected at a series of seminars attended by national Ministers of the Environment (or similar), NGOs and independent experts who consulted a range of sources including national red lists and scientific publications regarding endangered and threatened species.²⁸⁹⁶ Once selected, the species were then allocated either to annex IV, with animals in annex IV(a) and plants in annex IV(b), or to annex V.²⁸⁹⁷ Article 12 of the Habitats and Species Directive requires Member States to ensure the ‘strict protection’ of animal species listed in annex IV(a) where they are ‘in their natural range’, including, for example, ensuring that they are protected against being killed, captured or disturbed, that their eggs are protected from being collected or destroyed and that their ‘breeding sites and resting places’ are kept safe from harm.²⁸⁹⁸ Member States are expected to monitor the incidental take of listed animal species and to conduct conservation measures to ensure that any incidental take, such as through accidents or illegal hunting, ‘does not have a significant negative impact on the species concerned’.²⁸⁹⁹ For plant species listed in annex IV(b), Member States must ensure that there is a ‘system of strict protection’ which needs to include a prohibition on ‘the deliberate picking, collecting, cutting, uprooting or destruction of such plants in their natural range in the wild’.²⁹⁰⁰ Species listed in annex V are also to be protected but the level of protection is lower as these are usually species which are traditionally hunted.²⁹⁰¹ Member States are permitted to allow the taking of the species as

²⁸⁹³ *ibid*, article 6(2).

²⁸⁹⁴ Rodgers (n 265) 214; ‘Managing Natura 2000 Sites - the Provisions of Article 6 of the Habitats Directive 92/43/EEC’.

²⁸⁹⁵ Habitats and Species Directive (92/43/EEC).

²⁸⁹⁶ Evans (n 514) 15–16.

²⁸⁹⁷ Habitats and Species Directive (92/43/EEC), annex IV(a), IV(b), V.

²⁸⁹⁸ *ibid*, article 12.

²⁸⁹⁹ *ibid*, article 12(4).

²⁹⁰⁰ *ibid*, article 13.

²⁹⁰¹ *ibid*, article 14, annex V.

long as each species is maintained at a ‘favourable conservation status’.²⁹⁰² Indiscriminate forms of hunting, including all of those listed in annex VI, such as explosives, poison and artificial lights, may not be used to capture or kills any of the species listed in annex V.²⁹⁰³

As Sweden was not a member of the European Union when the Habitats and Species Directive was first agreed, it was not initially subject to it. When Sweden (and Finland) joined the European Union in 1995, the Habitats and Species Directive was amended to include vulnerable species and habitats which were found in Sweden and Finland.²⁹⁰⁴ From this point both Sweden and Finland were required to include the requirements of the directive in their national law. Sweden has implemented the species protection requirements of the Habitats and Species Directive in the Species Protection Ordinance, in the Hunting Act and in the Hunting Ordinance (all discussed below at E.4.5 and E.4.6).²⁹⁰⁵

E.4.3.2. Birds Directive

The purpose of the Birds Directive is to ensure that wild birds are protected throughout Europe. It is particularly important to have a region wide approach to wild bird protection given the large distances which many birds migrate during the year meaning that they are both a common resource and their protection is therefore a common responsibility.²⁹⁰⁶ The Birds Directive places an obligation on all European Union Member States to ‘take the requisite measures to maintain the population’ of wild birds.²⁹⁰⁷ The Member States should take into account the ‘ecological, scientific and cultural requirements’ as well as ‘economic and recreational requirements’.²⁹⁰⁸ Article 3 explains that this rather vague obligation means that the Member States are required to ‘preserve, maintain or re-establish’ habitats for all wild bird species found in Europe, and their ‘eggs, nests and habitats’, ensuring that there is sufficient diversity of habitats and enough area to provide sufficient space for those species.²⁹⁰⁹ As well as providing protection for all wild birds, additional protections are

²⁹⁰² *ibid*, article 14, annex V.

²⁹⁰³ *ibid*, article 14, annex V, annex IV.

²⁹⁰⁴ Act of 29 August 1994 Concerning the Conditions of Accession of the Kingdom of Norway, the Republic of Austria, the Republic of Finland and the Kingdom of Sweden and the Adjustments to the Treaties on Which the European Union is Founded, Annex I - List Referred to in Article 29 of the Act of Accession - VIII Environment - E Conservation of Wild Fauna and Flora.

²⁹⁰⁵ Species Protection Ordinance (2007:845); Hunting Act (1987:259); Hunting Ordinance (1987:905).

²⁹⁰⁶ Birds Directive (2009/147/EC), preamble, recital 4.

²⁹⁰⁷ *ibid*, article 2.

²⁹⁰⁸ *ibid*, article 2.

²⁹⁰⁹ *ibid*, article 1, 3.

put in place for endangered species. The endangered species which attract additional protections are identified in Annex I to the Directive and include Arctic species such as Arctic loon, golden eagle and northern harrier.²⁹¹⁰

The Birds Directive has two main approaches to the protection of wild birds, the habitats approach and the species approach.²⁹¹¹ The habitats approach requires Member States to designate land, in the form of biotopes and habitats which is used by wild birds.²⁹¹² The Member States are supposed to create protected areas for wild birds and ensure the upkeep and maintenance of habitats used by birds both within the protected areas and outside them.²⁹¹³ Member States are also supposed to repair destroyed biotopes which have previously been used by birds and to create new ones.²⁹¹⁴ For the protected species listed in Annex I, Member States must identify ‘the most suitable territories’ used by the species and designate them as Species Protection Areas.²⁹¹⁵ In these protected areas, the Member States need to ensure that pollution or other deterioration of the site does not occur and that the birds using the land are not disturbed.²⁹¹⁶ Examples of Special Protection Areas in Arctic Sweden include the Tavvavuoma alpine region which contains palsa mires with raised frozen ridges interspersed with wetland areas, and the wetlands, forests and meadows of Sjaunia.²⁹¹⁷ Both provide vital breeding sites for a number of protected bird species such as golden plover, short eared owl, snowy owl and bluethroat.²⁹¹⁸

The species approach to the protection of wild birds under the Directive takes two forms. First, there is a general level of protection which applies to all wild birds and then there is a lower level of protection for species which are considered to be pests and for species which are traditionally hunted as game species.²⁹¹⁹ The general level of protection requires Member States to establish their own protection for wild birds which prohibits deliberate killing and capturing of species, destroying or damaging eggs and nests, collecting eggs, disturbing wild birds during breeding or rearing (where that disturbance would reduce the

²⁹¹⁰ *ibid*, annex I; Chester (n 24) 163, 271, 276.

²⁹¹¹ Birds Directive (2009/147/EC); Rodgers (n 265) 202–208.

²⁹¹² Birds Directive (2009/147/EC), article 3.

²⁹¹³ *ibid*, article 3.

²⁹¹⁴ *ibid*, article 3.

²⁹¹⁵ *ibid*, article 4.

²⁹¹⁶ *ibid*, article 4.

²⁹¹⁷ ‘Skyddad Natur’ (n 2862).

²⁹¹⁸ *ibid*; Birds Directive (2009/147/EC), annex I.

²⁹¹⁹ Birds Directive (2009/147/EC), articles 5-7; Rodgers (n 265) 205.

population of the species below the minimum population level) and keeping wild birds.²⁹²⁰ The Member States should also take action to prevent the sale (and activities relating to the sale) of wild birds and wild bird parts.²⁹²¹ This high level of protection applies to most wild bird species but Member States may authorise the hunting of those species listed in Annex II (either throughout the European Union or in certain indicated countries) as long as the hunting ‘complies with the principles of wise use and ecologically balanced control of the species of birds concerned’ and that it does not threaten the population level of the species.²⁹²² Member States are required to put in place laws which prevent hunting during breeding seasons or when migratory birds are returning to their breeding sites and which prohibit non selective methods of hunting, as listed in Annex IV(a).²⁹²³ Swedish Arctic species which are included in Annex II include the willow ptarmigan, rock ptarmigan, black grouse and hazel grouse, with the willow ptarmigan only having been added to the list when Sweden and Finland joined the European Union in 1995 and the directive was amended to take their accession into account.²⁹²⁴ In Sweden the provisions of the Birds Directive are enacted in national law through the Species Protection Ordinance, the Hunting Act and the Hunting Ordinance as discussed below at E.4.5 and E.4.6.²⁹²⁵

E.4.4. Swedish Environmental Code

The Swedish Environmental Code was enacted in 1998 and brought into force on 1 January 1999.²⁹²⁶ The code aimed to bring together fifteen disparate environmental law statutes which had previously existed in Sweden, in order to provide a comprehensive environmental legal system throughout Sweden.²⁹²⁷ The stated purpose of the code is to ‘promote sustainable development which will assure a healthy and sound environment for present and future generations’.²⁹²⁸ The code acknowledges that ‘nature is worthy of protection’ and that the right to exploit natural resources brings with it, the responsibility

²⁹²⁰ Birds Directive (2009/147/EC), article 5; Rodgers (n 265) 206.

²⁹²¹ Birds Directive (2009/147/EC), article 6.1.

²⁹²² *ibid*, article 7.

²⁹²³ *ibid*, article 7, 8, annex IV(a).

²⁹²⁴ *ibid*, annex II; Chester (n 24) 264, 267–268; Act of 29 August 1994 Concerning the Conditions of Accession of the Kingdom of Norway, the Republic of Austria, the Republic of Finland and the Kingdom of Sweden and the Adjustments to the Treaties on Which the European Union is Founded, Annex I - List Referred to in Article 29 of the Act of Accession - VIII Environment - E Conservation of Wild Fauna and Flora.

²⁹²⁵ Species Protection Ordinance (2007:845); Hunting Act (1987:259); Hunting Ordinance (1987:905).

²⁹²⁶ Swedish Environmental Code (1998:808).

²⁹²⁷ *ibid*; Thews, Höjding and Jansson (n 264) 5, 15.

²⁹²⁸ Swedish Environmental Code (1998:808), chp 1, s 1.

to manage those resources wisely.²⁹²⁹ From this overall objective flows the principles on which environmental law is based in Sweden, and together these influence the provisions of environmental law found within the code.²⁹³⁰ The Environmental Code covers a broad range of environmental issues, from the regulation of natural resources including land, water, forests and flora and fauna, permitting of environmentally damaging activities and the conservation of nature.²⁹³¹ The Environmental Code applies to all persons within Sweden, including individuals, corporate bodies and governmental bodies and to ‘virtually anything that might cause or constitute anthropogenic environmental impact’.²⁹³²

E.4.4.1. General Provisions

The general provisions of the Environmental Code set out a series of principles on which environmental law in Sweden is supposed to operate and by which the remaining chapters of the code are to be interpreted. These principles include the burden of proof principle, which forces those who are conducting a potentially environmentally damaging activity to bear the burden of proof that they have complied with the requirements of the code, the precautionary principle, which ensures that action is taken to reduce the environmental impact of an activity even when there is only a risk of harm, and the proportionality principle, which limits the general principles to situations where it is reasonable to enforce them, both environmentally and economically.²⁹³³ There are also a series of more minor principles, most of which provide more specific guidance in implementing the key principles outlined above.

E.4.4.2. Provisions on Species Protection

The provisions in the Swedish Environmental Code on species protection create a framework under which the Swedish government is authorised to issue regulations regarding the protection of species of both animals and plants.²⁹³⁴ Section 1 deals with the protection of wild animals.²⁹³⁵ The Code allows the government to issue regulations which prohibit ‘killing, injury or capture’ of wild animals and taking or damaging ‘eggs, spawn,

²⁹²⁹ *ibid*, chp 1, s 1.

²⁹³⁰ *ibid*.

²⁹³¹ *ibid*; Thews, Højding and Jansson (n 264) 15.

²⁹³² Swedish Environmental Code (1998:808); Westerlund (n 2831) 33.

²⁹³³ Swedish Environmental Code (1998:808), ch 2; Thews, Højding and Jansson (n 264) 17–18.

²⁹³⁴ Swedish Environmental Code (1998:808) ch 8.

²⁹³⁵ *ibid* 8, s 1.

roe and nests’.²⁹³⁶ These rules can be issued whenever there is a ‘risk of wild animal species becoming extinct’ or where there is a risk that the resource will be exploited.²⁹³⁷ The government can also issue rules in order to conform to Sweden’s international obligations.²⁹³⁸ The government is also entitled to delegate its authority to another authority, such as the County Administrative Boards (länsstyrelsen) which are responsible for implementing national policies at a regional level.²⁹³⁹ The only situation where the government is not entitled to prevent an animal being ‘killed, injured or captured’ is where there is a need to ‘defend a person’ or protect ‘valuable property’ against attack by a wild animal.²⁹⁴⁰ The Swedish government has issued the Species Protection Ordinance under the authority provided for in chapter 8, section 1 of the Environmental Code.²⁹⁴¹

The government is also entitled to issue rules relating the protection of plant species.²⁹⁴² These rules can prevent the removal of species of wild plant, the causing of any damage or the taking of seeds or other parts of the plant.²⁹⁴³ The government, or an authority to which it delegates responsibility, can only issue such rules where there is a risk of a wild plant species becoming extinct or ‘being subjected to exploitation’.²⁹⁴⁴ They can also issue rules where it is necessary to abide by Sweden’s international obligations.²⁹⁴⁵ The Species Protection Ordinance also protects plants and was issued under this section.²⁹⁴⁶

Violations of the Swedish Environmental Code, and ordinances made under its authority, such as the Swedish Species Protection Ordinance are punished by way of a series of offences under part 6 of the code.²⁹⁴⁷ These offences include, for example, littering, obstruction of environmental control and environmental offences such as deliberately polluting land or water to the detriment of flora or fauna.²⁹⁴⁸ Punishments range from a

²⁹³⁶ *ibid.*

²⁹³⁷ *ibid.*

²⁹³⁸ *ibid.*

²⁹³⁹ Thews, Höjding and Jansson (n 264) 10; Swedish Environmental Code (1998:808) ch 8, s 1.

²⁹⁴⁰ Swedish Environmental Code (1998:808) ch 8, s 1.

²⁹⁴¹ *ibid.*; Species Protection Ordinance (2007:845).

²⁹⁴² Swedish Environmental Code (1998:808), ch 8, s 2.

²⁹⁴³ *ibid.*, ch 8, s 2.

²⁹⁴⁴ *ibid.*, ch 8, s 2.

²⁹⁴⁵ *ibid.*, ch 8, s 2.

²⁹⁴⁶ *ibid.*, ch 8, s 2.

²⁹⁴⁷ *ibid.*, Part 6.

²⁹⁴⁸ *ibid.*, ch 29, ss 1, 5, 7.

fine to a term of imprisonment of up to six years.²⁹⁴⁹ For businesses which commit environmental offences, an Environmental Sanction Charge may be imposed, at a value of between 5,000 SEK and 1,000,000 SEK.²⁹⁵⁰ Breaches of regulations made under chapter 8, section 1, which includes the Species Protection Ordinance, are considered to be an offence under chapter 29, section 8.²⁹⁵¹ Where the offence is committed deliberately or as a result of negligence, the offender, on conviction, is liable to a fine or a term of imprisonment of up to two years.²⁹⁵² Any animal or plant acquired as a result of the offence may be subject to forfeiture.²⁹⁵³

E.4.5. Swedish Species Protection Ordinance

As the Swedish Environmental Code only provides a framework for the environmental laws within Sweden, a further ordinance was required to provide the detailed laws on species protection.²⁹⁵⁴ The Species Protection Ordinance was passed in 2007, under the authority of chapter eight of the Environmental Code.²⁹⁵⁵ The ordinance regulates species protection in a number of different ways, including direct protection of species, rules on the storage, commerce and transport of species, rules on the maintenance of zoos and animal parks and licences for various activities.²⁹⁵⁶ Only the rules which deal with direct species protection, found in section four to fourteen, are within the scope of this thesis.²⁹⁵⁷

The Species Protection Ordinance applies to wild animals, reptiles and invertebrates as well as plants, mosses, fungus and lichens, with those species which are protected by it listed in the appendices.²⁹⁵⁸ The ordinance is heavily reliant on the Birds Directive and the Habitats Directive and more or less imports the lists of species found within those directives into Swedish law, albeit with the addition of a few further species. The protection is fairly heavily skewed towards the protection of plants and birds, with all of Sweden's 250 species of wild breeding birds protected, all species of orchid protected and over 250 species of

²⁹⁴⁹ *ibid*, ch 29, ss 1, 2.

²⁹⁵⁰ *ibid*, ch 30.

²⁹⁵¹ *ibid*, ch 29, s 8(9).

²⁹⁵² *ibid*, ch 29, s 8.

²⁹⁵³ *ibid*, ch 29, s 12.

²⁹⁵⁴ *ibid*.

²⁹⁵⁵ Species Protection Ordinance (2007:845) s 1; Swedish Environmental Code (1998:808) ch 8.

²⁹⁵⁶ Species Protection Ordinance (2007:845).

²⁹⁵⁷ *ibid* 4–14.

²⁹⁵⁸ *ibid* 4–9.

plant, fungi, moss and lichen protected.²⁹⁵⁹ In comparison, while all of Sweden's species of amphibians and reptiles are protected, only 27 species of mammal are granted protection under the ordinance (of which 17 are species of bats).²⁹⁶⁰

Most of the wording of the Species Protection Ordinance is taken directly from the Habitats and Species Directive which required Sweden (and Finland) to make provision for the protection of species found within its borders.²⁹⁶¹ While a directive only requires a member state to achieve a particular outcome, Sweden's species protection laws are almost a word for word implementation of the directive in national law.²⁹⁶² Like the Habitats Directive, the Swedish Species Protection Ordinance lists species in various appendices and then provides for the protection of certain species within each of those appendices.²⁹⁶³ A few additional species are included which have national importance but which did not warrant inclusion in the annexes of the Habitats Directive.²⁹⁶⁴

Under section 4 of the ordinance, it is prohibited to catch or to kill any species of wild bird and any species of wild animal which is listed in appendix 1 of the ordinance and is indicated either by an upper case or lower case letter 'N'.²⁹⁶⁵ Species marked with an uppercase letter 'N' are those which are included in annex four of the Habitats Directive as species which require strict protection.²⁹⁶⁶ Species marked with a lower case letter 'n' are species which are not included in annex four of the Habitats Directive but which have either been assessed to need special protection at a national level or which attract an obligation of protection under Sweden's international commitments.²⁹⁶⁷ The protected mammals which are found north of the Arctic Circle are the brown bear, Arctic fox, wolverine, Eurasian

²⁹⁵⁹ Species Protection Ordinance (2007:845), Appendix 1; 'Fridlysta blomväxter, ormbunkar, lummer-, fräken- och barrväxter (Protected Vascular Plants)'; 'Fridlysta mossor, lavar, svampar och alger (Protected Mosses, Lichens, Fungi and Algae)'; 'Fridlysta orkidéer (Protected Orchids)'; 'Protected Species' (*Swedish Environmental Protection Agency*) <<http://www.swedishepa.se/Enjoying-nature/Animal-and-plants/Protected-species/>> accessed 29 September 2018.

²⁹⁶⁰ Species Protection Ordinance (2007:845), appendix 1; 'Fridlysta fåglar, däggdjur, kräldjur, groddjur och ryggradslösa djur (Protected Animals)'; 'Protected Species' (n 2959).

²⁹⁶¹ Habitats and Species Directive (92/43/EEC).

²⁹⁶² *ibid*; Species Protection Ordinance (2007:845).

²⁹⁶³ Habitats and Species Directive (92/43/EEC); Species Protection Ordinance (2007:845).

²⁹⁶⁴ Habitats and Species Directive (92/43/EEC); Species Protection Ordinance (2007:845).

²⁹⁶⁵ Species Protection Ordinance (2007:845) s 4.

²⁹⁶⁶ Species Protection Ordinance (2007:845), appendix 1; Habitats and Species Directive (92/43/EEC), article 12, annex IV.

²⁹⁶⁷ Species Protection Ordinance (2007:845), appendix 1.

lynx and Eurasian otter.²⁹⁶⁸ Of the protected species of bat, only one species, the northern bat, is found north of 65°N.²⁹⁶⁹ Section four applies to protected species at all stages of their life cycle and also applies to all bird species found north of the Arctic Circle.²⁹⁷⁰ The section makes it unlawful intentionally to capture or to kill any of the protected species, or intentionally to disturb any of the protected species, particularly during seasons in which the birds or animals are more vulnerable such as during the mating season, when breeding, during winter or when species are moving or migrating.²⁹⁷¹ The section also prohibits the intentional destruction or collection of eggs found in the wild and the damage or destruction of habitat used by the protected species for breeding or resting.²⁹⁷² These protections do not apply to the hunting or fishing of the listed species where this is lawful under the Hunting Act of 1987, the Hunting Ordinance of 1987 or the Fishing Regulations.²⁹⁷³

For some species, killing or capture is lawful. Section five provides a level of protection for these types of species by prohibiting the use of certain methods and ensuring that the population as a whole is not irreversibly depleted.²⁹⁷⁴ The requirement to include this type of protection comes from article 15 of the Habitats Directive.²⁹⁷⁵ The protections apply to the wildlife species which are listed with the letters 'N' and 'n' as in section four and, in addition, those marked 'F' which includes the species found in annex five of the Habitats Directive.²⁹⁷⁶ These are species which are of interest within the European Union such that their use, collection or exploitation may be managed.²⁹⁷⁷ For species which fall under the protection of section five, albeit with the exception of mammals and birds which would otherwise fall into this category, it is unlawful to use methods for killing and capture which

²⁹⁶⁸ *ibid*, appendix 1; J Linnell, V Salvatori and L Boitani, *Guidelines for Population Level Management Plans for Large Carnivores* (European Commission 2008)

<http://ec.europa.eu/environment/nature/conservation/species/carnivores/conservation_status.htm> accessed 23 November 2018; 'Eurasian Otter' (*IUCN Red List of Threatened Species*)

<<https://www.iucnredlist.org/en>> accessed 23 November 2018; 'Arctic Fox' (*IUCN Red List of Threatened Species*) <<https://www.iucnredlist.org/en>> accessed 23 November 2018.

²⁹⁶⁹ Jens Rydel, 'The Northern Bat of Sweden: Taking Advantage of a Human Environment' (1990) 8 BATS Magazine <http://www.batcon.org/resources/media-education/bats-magazine/bat_article/435> accessed 23 November 2018.

²⁹⁷⁰ Species Protection Ordinance (2007:845) s 4.

²⁹⁷¹ *ibid*.

²⁹⁷² *ibid*.

²⁹⁷³ *ibid*; Hunting Act (1987:259); Hunting Ordinance (1987:905); Ordinance on Fishing, Aquaculture and Fisheries (1994:1716).

²⁹⁷⁴ Species Protection Ordinance (2007:845) s 5.

²⁹⁷⁵ Habitats and Species Directive (92/43/EEC), art 5.

²⁹⁷⁶ Species Protection Ordinance (2007:845) s 5.

²⁹⁷⁷ Species Protection Ordinance (2007:845), s5, appendix 1.

are not selective and local, which target entire populations or groups of a species indiscriminately.²⁹⁷⁸ Examples of such methods would include poison, explosives, artificial lights and semi-automatic weapons.²⁹⁷⁹ It is also unlawful to use methods which place the population of the species at risk of disappearance or could cause ‘serious disturbance’.²⁹⁸⁰ Likewise, it is illegal to attempt to capture or kill from a moving vehicle or aircraft.²⁹⁸¹ The capture and killing of birds and mammals is not regulated by this section as equivalent prohibitions are included in the Hunting Act of 1987 and the Hunting Ordinance of 1987 and fishing is likewise dealt with elsewhere.²⁹⁸² As the majority of the species on the relevant lists are mammals, birds or fish, and section five does not apply to plants, the number of species protected by section five is fairly small, with the protection mostly applying to reptiles, amphibians and invertebrates. The only species of frog found in the Swedish Arctic, the moor frog, is covered by the protection of section five.²⁹⁸³

Section six provides additional protection for wild reptiles, frogs and invertebrates.²⁹⁸⁴ The protected species are listed in appendix 2 of the ordinance, which also specifies the geographical extent of the protection.²⁹⁸⁵ Many species are protected throughout the whole of Sweden but some species are only protected in certain counties.²⁹⁸⁶ The section prohibits the capture, killing, harm or collection of examples of the relevant species and also prevents the removal of, or damage to, any eggs, roe, larvae or nests.²⁹⁸⁷ There are few reptiles and frogs which live as far north of the Arctic so the majority of the species protected by section six are not Arctic species.²⁹⁸⁸ The protection does, however, apply to the viviparous lizard or common lizard which is the most northerly, and only Arctic, land-based reptile in the world and is found throughout the European and western Russian Arctic.²⁹⁸⁹

²⁹⁷⁸ *ibid* 5.

²⁹⁷⁹ Habitats and Species Directive (92/43/EEC), Article 15.

²⁹⁸⁰ Species Protection Ordinance (2007:845) s 5.

²⁹⁸¹ *ibid*.

²⁹⁸² *ibid*; Hunting Act (1987:259); Hunting Ordinance (1987:905).

²⁹⁸³ Species Protection Ordinance (2007:845), s5, appendix 1; Chester (n 24) 399–400.

²⁹⁸⁴ Species Protection Ordinance (2007:845) s 6.

²⁹⁸⁵ Species Protection Ordinance (2007:845), s6, appendix 2.

²⁹⁸⁶ *ibid*, s6, appendix 2.

²⁹⁸⁷ *ibid* 6.

²⁹⁸⁸ Species Protection Ordinance (2007:845), s6, appendix 2.

²⁹⁸⁹ *ibid*, s6, appendix 2; Chester (n 24) 399.

As well as protecting animal species, the Species Protection Ordinance provides protection for many species of plant.²⁹⁹⁰ Protected plants are listed either in appendix 1 or in appendix 2 with different levels of protection applying to different species.²⁹⁹¹ For species listed in appendix 1 it is prohibited, by section 7, ‘intentionally to pick, collect, cut off, pull up the roots or destroy’ the plant where that plant is in the wild and is within its natural range.²⁹⁹² Unlike for animal species, all plant species listed in appendix 1 are protected as long as they are within their natural range. For plants, mosses, lichens, mushrooms and algae listed in appendix 2, those protected under section 8 must not be picked, dug up, removed or damaged, nor must the seeds or any other part of the plant be taken or destroyed.²⁹⁹³ For those protected under section 9, some level of picking of the plants is allowed as long as the plant is not dug up or extracted by the roots and as long as any specimens are not picked for ‘sale or other commercial purposes’.²⁹⁹⁴ Plants protected under sections 8 or 9 are either protected throughout the whole country, are only protected in certain counties or the levels of protection are different in different parts of the country, depending on the geographical extent listed in appendix 2.²⁹⁹⁵ In total there are 275 vascular plants protected (including all 43 of Sweden’s species of orchid which are protected under both sections 6 and 8) and 12 mosses, 8 lichens, 5 fungi and one species of algae protected.²⁹⁹⁶ Examples of Arctic plants which are protected under section 7 include the spongy sphagnum moss which grows throughout the Arctic, Lapland buttercup, a yellow flowering plant which grows in wet or boggy areas and the Pasque flower which produces poisonous purple flowers in the early Spring.²⁹⁹⁷ All species of clubmoss, which flourishes across the Arctic, are protected by section 9 which means that picking is allowed (except in the county of Blekinge where section 8 applies) but not digging by the roots or picking for commercial sale.²⁹⁹⁸

There are certain exemptions from the general rules on the protection of species set out in sections four to nine.²⁹⁹⁹ Under section 10, in spite of the protections found in section 6, any vipers found may be caught or moved, and if that is not possible and there are no other

²⁹⁹⁰ Species Protection Ordinance (2007:845).

²⁹⁹¹ *ibid*, appendix 1, appendix 2.

²⁹⁹² *ibid*, s 7, appendix 1.

²⁹⁹³ *ibid*, s 8, appendix 2.

²⁹⁹⁴ *ibid* 9.

²⁹⁹⁵ Species Protection Ordinance (2007:845), ss 8-9, appendix 2.

²⁹⁹⁶ ‘Protected Species’ (n 2959).

²⁹⁹⁷ Species Protection Ordinance (2007:845), s 7, appendix 1; Chester (n 24) 436, 438, 456, 458–461.

²⁹⁹⁸ Species Protection Ordinance (2007:845), s 8, s 9, appendix 2; Chester (n 24) 438.

²⁹⁹⁹ Species Protection Ordinance (2007:845) ss 10–15.

solutions, may be killed.³⁰⁰⁰ Under section 11, for certain amphibious species, including the common lizard and moor frog both of which are found in the Arctic, eggs, fry and single specimens may be collected for the purposes of academic study as long as they are promptly released in the same place that they are captured.³⁰⁰¹ Section 12 allows for the harvest of mistletoe which would otherwise be protected as long as it is carried out by the landowner, with due consideration for the host tree and for the survival of the population as a whole.³⁰⁰² Similarly, the owner of land containing specimens of snowdrop anemones are not subject to the prohibition against picking found in section 8.³⁰⁰³ Section 13 allows for the collection of certain species of insect, amphibian and plant for the purposes of ‘documenting the species’ as long as there are no other suitable methods of doing so and the population of the species is not threatened.³⁰⁰⁴ Where a person wishes to collect, capture, kill or pick a specimen which is protected by the Species Protection Ordinance and for which there is no exemption, the County Administrative Board may grant permission to take one or more examples of the species as long as there are no other suitable solutions and the conservation status of the species will not be impaired.³⁰⁰⁵ For a species which is protected under sections 4, 5 or 7 (i.e. the species is listed in appendix 1 of the Species Protection Ordinance) then the authorisation may only be granted if it is for one of the purposes listed in section 14 which include, *inter alia*, the protection of plants or animals, avoiding serious damage to property or livestock, for public health and safety and for research purposes.³⁰⁰⁶

Any breaches of the Species Protection Ordinance are enforced by way of the measures under chapter 29 of the Environmental Code (discussed above at E.4.4.2).

E.4.6. Hunting Act and Hunting Ordinance

While the Species Protection Ordinance provides for the protection of listed plants and animals, there are exceptions to the prohibitions in the ordinance for the hunting of birds and mammals.³⁰⁰⁷ Partly this is because the rules protecting species are reflected in the hunting laws so the exceptions prevent unnecessary duplication of the law and partly it is

³⁰⁰⁰ *ibid* 10.

³⁰⁰¹ *ibid* 11.

³⁰⁰² *ibid* 12.

³⁰⁰³ *ibid*.

³⁰⁰⁴ *ibid* 13.

³⁰⁰⁵ *ibid* 14, 15.

³⁰⁰⁶ *ibid* 14.

³⁰⁰⁷ *ibid* 4, 5.

because hunting of certain species is allowed within Sweden, even if that species is otherwise protected.³⁰⁰⁸ The rules surrounding the protection of species which may be hunted are found in the Hunting Act and the Hunting Ordinance, both of which became law in 1987 and entered into force on 1 January 1988.³⁰⁰⁹ Both the act and the ordinance have since been fairly heavily amended. It is important to understand the provisions of the Hunting Act and the Hunting Ordinance because together they provide protection for a broader range of mammal and bird species than is protected by the Species Protection Ordinance.

The Hunting Act of 1987 provides a framework for the regulation and management of hunting and species protection within Sweden.³⁰¹⁰ It sets out the principles which should govern hunting and then authorises either the government or the County Administrative Boards to pass further regulations containing the detailed rules.³⁰¹¹ Many of these more detailed rules are contained in the Hunting Ordinance.³⁰¹² The act, and the ordinance, cover all hunting ‘and related matters’ within Swedish territory, within the Swedish Exclusive Economic Zone, from Swedish vessels on the high sea and from Swedish aircraft in the free zone.³⁰¹³

The act applies to wildlife which it defines as wild mammals and wild birds.³⁰¹⁴ Unlike the Species Protection Ordinance which lists the species to which it applies, the Hunting Act covers all wildlife found in Sweden.³⁰¹⁵ It does not, however, include plants, insects, amphibians or other animal species except for mammals and birds and it does not include domestic species or species kept for the purposes of agriculture, such as herded reindeer.³⁰¹⁶ The act defines hunting as the killing or catching of wildlife as well as searching for, pursuing or tracking wildlife for the purpose of killing or catching it. The act also defines hunting as interfering with nests and taking or destroying birds’ eggs.³⁰¹⁷

³⁰⁰⁸ *ibid.*

³⁰⁰⁹ Hunting Act (1987:259); Hunting Ordinance (1987:905).

³⁰¹⁰ Hunting Act (1987:259).

³⁰¹¹ *ibid.*

³⁰¹² Hunting Ordinance (1987:905).

³⁰¹³ Hunting Act (1987:259) s 1; United Nations Convention on the Law of the Sea 1982.

³⁰¹⁴ Hunting Act (1987:259) s 2.

³⁰¹⁵ *ibid.*

³⁰¹⁶ *ibid.*

³⁰¹⁷ *ibid.*

Section 3 of the act is key to the protection of mammals and birds within Sweden, particularly those which do not appear in appendix 1 of the Species Protection Ordinance.³⁰¹⁸ The section states that all wildlife is protected and may only be hunted where lawful authority is granted under the Hunting Act or regulations made under the act.³⁰¹⁹ The protection extends to the eggs of any bird species and to nests.³⁰²⁰ This means that while some level of interference with wildlife species, in the form of killing, capturing or pursuing them, is allowed within Sweden, the extent of that interference can be controlled by the government and, where hunting is not explicitly permitted, the species is fully protected.³⁰²¹ In reaching decisions regarding hunting, the government is required to ensure that wildlife species are conserved and that sustainable development of game species is promoted.³⁰²² The obligation to conserve species extends to wildlife naturally occurring in Sweden and to birds which naturally reside temporarily within Sweden, even if they migrate elsewhere for parts of the year.³⁰²³ An obligation is also placed on everyone involved with outdoor sports to ensure that wildlife is not disturbed by their pursuits.³⁰²⁴

The right to hunt in Sweden aligns with property rights; the owner of the land has the right to hunt or to allow hunting on his land.³⁰²⁵ In many areas, local landholders pool the hunting rights over their land to establish a Game Conservation Area.³⁰²⁶ These areas are managed by a Game Conservation Area Association which is made up of the landowners and others with a right to hunt on the land included in the area. However, merely having the right to hunt on a particular area of land is not sufficient and a hunter is also required to have permission to hunt for each species which he wishes to pursue.³⁰²⁷ To obtain such permission, a person must pass the hunter's proficiency test and be entered into the register of hunters.³⁰²⁸ The hunter is also required to purchase an annual hunting permit by paying the game conservation fee, currently 300 SEK (approximately £26).³⁰²⁹ This permit allows

³⁰¹⁸ *ibid* 3; Species Protection Ordinance (2007:845), appendix 1.

³⁰¹⁹ Hunting Act (1987:259) s 3.

³⁰²⁰ *ibid*.

³⁰²¹ *ibid* 3, 5.

³⁰²² *ibid* 4.

³⁰²³ *ibid*.

³⁰²⁴ *ibid* 5.

³⁰²⁵ *ibid* 10.

³⁰²⁶ Act on Game Conservation Areas (Lag om Viltvårdsområden) (2000:592).

³⁰²⁷ Hunting Act (1987:259) s 29.

³⁰²⁸ Hunting Ordinance (1987:905) ss 52f–52g.

³⁰²⁹ *ibid* 49–52.

a hunter to take part in the general hunt for species listed in appendix 1 of the Hunting Ordinance.³⁰³⁰ The permit itself must be carried when out hunting and must be presented to the authorities on request.³⁰³¹ The permit covers the entire hunting year which runs from 1 July to 30 June.³⁰³² For moose hunting, an additional fee must be paid to purchase a moose hunting licence. On top of this, a fee is paid for every moose killed.³⁰³³ If more moose are killed than the moose hunting licence allows then a further fee of 7,000 SEK (about £610) must be paid to the County Administrative Board (3,000 SEK (£260) for a calf).³⁰³⁴ Where a Game Conservation Area is established, the Game Conservation Area Association may apply for a single permit or licence which covers the entire area and then may decide itself how the hunting rights will be divided.³⁰³⁵

Where hunting is permitted, it must be carried out in such a way that no unnecessary suffering is caused to the animal and that no people or property are harmed.³⁰³⁶ If an animal is injured then the hunter must take all steps necessary to ensure that the animal is found and killed so that it does not suffer.³⁰³⁷ There are also restrictions on the methods which may be used for hunting so as to ensure that there is as little suffering as possible. These restrictions include limits on the types of weapons which can be used, on the use of pesticides, on luring animals with lights, on using dogs and, for species which are protected under the Species Protection Ordinance in categories, N, n or F, the methods listed in appendix 5 of the Hunting Ordinance, which include nets, poisoned bait, explosives and artificial light sources, are completely prohibited.³⁰³⁸

Most species which can be hunted in Sweden form part of the general hunt and these species are listed in appendix 1 to the Hunting Ordinance.³⁰³⁹ Hunters seeking these species must pass the hunter's test and acquire a hunter's permit but do not need an additional species licence.³⁰⁴⁰ The number of species which can be hunted as part of the general hunt is fairly

³⁰³⁰ *ibid.*

³⁰³¹ *ibid.*

³⁰³² *ibid* 2, 49.

³⁰³³ *ibid* 52b.

³⁰³⁴ *ibid* 52c.

³⁰³⁵ Act on Game Conservation Areas (Lag om Viltvårdsområden) (2000:592).

³⁰³⁶ Hunting Act (1987:259) s 27.

³⁰³⁷ *ibid* 28.

³⁰³⁸ Hunting Ordinance (1987:905), ss 10, 13, 14, 16, appendix 5.

³⁰³⁹ *ibid*, s 2, appendix 1.

³⁰⁴⁰ *ibid* 2.

small. Included in the list of permitted species are nine animals, of which four are Arctic species, and 34 bird species, of which approximately 20 are Arctic species. Arctic species include beaver, hare, red fox, pine marten, willow ptarmigan, black grouse, Eurasian wigeon and the common goldeneye.³⁰⁴¹ Although there are a number of Arctic seabirds included in the list of species which can be hunted, such as the greylag goose and the eider, most of them do not venture far enough inland to be found in Sweden's Arctic region.³⁰⁴²

Section 2 permits the hunting of species only within the hunting season set out in appendix 1.³⁰⁴³ There is a different season for each eligible species and in many cases, the season changes throughout the country.³⁰⁴⁴ For example, red fox can be hunted in Norrbotten from 1 August to 15 April each year whereas beaver can be only be hunted in Norrbotten from 1 October to 15 May.³⁰⁴⁵ Some of the hunting seasons are very specific. Long tailed ducks, which are found throughout the Arctic, can be hunted in the parts of Norrbotten which border Finland only from 11am on 20 August until the end of hunting on 30 August.³⁰⁴⁶ The County Administrative Board has the right to amend the hunting season for a particular species if such a change is warranted by the 'snow, ice or temperature conditions'.³⁰⁴⁷ Different hunting seasons apply for species which may be hunted to prevent damage to wildlife.³⁰⁴⁸ Hunting seasons are reviewed at least once every six years to decide if they remain appropriate.³⁰⁴⁹

For species which are not included in the general hunt, other provisions apply. Moose may be hunted, either with a licence in a Licence Area or without a licence in a specially designated Moose Management Area.³⁰⁵⁰ The hunting season for moose is set out in appendix 2 to the Hunting Ordinance and, for the Arctic, is the first Monday in September until the end of February except where snow conditions warrant other dates.³⁰⁵¹

³⁰⁴¹ Hunting Ordinance (1987:905), appendix 1; Chester (n 24).

³⁰⁴² Hunting Ordinance (1987:905), appendix 1; Chester (n 24).

³⁰⁴³ Hunting Ordinance (1987:905), s 2, appendix 1.

³⁰⁴⁴ *ibid*, s 2, appendix 1.

³⁰⁴⁵ *ibid*, appendix 1.

³⁰⁴⁶ *ibid*, appendix 1.

³⁰⁴⁷ *ibid* 2.

³⁰⁴⁸ Hunting Ordinance (1987:905), s 26, appendix 4.

³⁰⁴⁹ *ibid* 2.

³⁰⁵⁰ Hunting Act (1987:259) s 33; Hunting Ordinance (1987:905), s 3-3d, appendix 2.

³⁰⁵¹ Hunting Ordinance (1987:905), 3a, appendix 2.

The large predators found in Sweden may be hunted either under the protection hunt or the licenced hunt. The protection hunt allows the hunting of bear, wolf, wolverine, lynx, eagle and seal for the purposes of protection of humans, property or other wildlife where there are no other suitable solutions to the threat posed by the species and the hunting will not ‘hamper the maintenance of a favourable conservation status of the species in its natural range’.³⁰⁵² The decision to issue a licence, and the terms on which that licence is issued will be made by the Swedish Environmental Protection Agency who can delegate the decision to the County Administrative Board.³⁰⁵³ The licenced hunt allows the Swedish Environmental Protection Agency or the County Administrative Board to issue licences to hunt bear, wolf, wolverine and lynx where the hunt will not inhibit the ‘maintenance of a favourable conservation status’ and where the scale of the hunt is appropriate given the size of the population of the species.³⁰⁵⁴ Minimum numbers are established for each species and no hunting licences may be issued if this would cause the population of the species to drop below this number.³⁰⁵⁵ In Norrbotten, in 2018, licences were issued for the hunting of 16 bears but this was doubled to 34 for the 2019 hunt.³⁰⁵⁶ Hunting was allowed from 21 August 2018 until either 16 bears had been killed or the hunt ended on either 30 September or 15 October in the north and south respectively.³⁰⁵⁷ The death of a bear must be reported immediately as the hunt finishes as soon as the quota is filled.³⁰⁵⁸ In 2018, the hunt ended on 9 October 2018.³⁰⁵⁹ The quota for lynx in Norrbotten in 2018 was four animals of which no more than two could be female; the hunt was ended after three animals were killed

³⁰⁵² Hunting Act (1987:259) ss 7–9; Hunting Ordinance (1987:905) ss 23a–23b.

³⁰⁵³ Hunting Ordinance (1987:905) ss 23a, 23b, 24a.

³⁰⁵⁴ *ibid* 23c; Decision to Delegate Decision Making Power on Hunting Predators to Country Administrative Boards 2016.

³⁰⁵⁵ Large Predator Ordinance (2009:1263) s 4.

³⁰⁵⁶ Norrbotten County Administrative Board Licence Hunt Decision for Bear 2018 (Länsstyrelsen Norrbottens Licenjaksbeslut Björn 2018); ‘Fördubblad Björnjakt i Norrbotten’ (*Svensk Jakt*, 1 July 2019) <<https://svenskjakt.se/start/nyhet/fordubblad-bjornjakt-i-norrbotten/>> accessed 19 July 2019; Norrbotten County Administrative Board Licence Hunt Decision for Bear 2019 (Länsstyrelsen Norrbottens Licenjaksbeslut Björn 2019).

³⁰⁵⁷ Norrbotten County Administrative Board Licence Hunt Decision for Bear 2018 (Länsstyrelsen Norrbottens Licenjaksbeslut Björn 2018).

³⁰⁵⁸ ‘Jakt och viltvård’ <<https://www.lansstyrelsen.se/norrbotten/privat/jakt-och-fiske/jakt-och-viltvard.html>> accessed 16 December 2018.

³⁰⁵⁹ *ibid*.

because two females had been shot.³⁰⁶⁰ There was no wolf licence hunt in Norrbotten in 2018 and no wolverine licence hunt throughout the whole of Sweden.³⁰⁶¹

The Hunting Act 1987, and the regulations made under it, are enforced by the measures included in sections 42a to 51b of the act.³⁰⁶² Punishments for violations of the rules differ depending on the section breached but in general they range from a fine to a maximum of one year for acts carried out intentionally or with gross negligence.³⁰⁶³ Minor acts are not punished at all.³⁰⁶⁴ Where a fine is imposed, it is usually stated in terms of a day-fine which means that the offender must pay a proportion of their daily income for that number of days.³⁰⁶⁵ This system, which is also used in Finland, allows for fines to be proportionate to a person's wealth.³⁰⁶⁶ Acts which are regarded as 'gross', including those which have harmed threatened, rare or protected species, large scale offending and hunting using 'particularly harsh hunting methods' can be punished with a sentence of imprisonment of between six months and four years.³⁰⁶⁷ Where a person has committed an offence, any wildlife which he has acquired unlawfully may be forfeited (or an amount equivalent to its value paid).³⁰⁶⁸ Similarly, any equipment used in the commission of the offence can be confiscated.³⁰⁶⁹

E.4.7. Regulation on the Management of Predators

In 2009, an ordinance was issued regarding the management of Sweden's main large predators, the bear, wolf, wolverine, lynx and golden eagle.³⁰⁷⁰ The purpose of the ordinance was to ensure that the large predators found in Sweden are managed in such a way that they maintain their natural distribution in the wild and that the species do not

³⁰⁶⁰ 'Licensjakt på lodjur 2018 - SVA' <<https://www.sva.se/djurhalsa/vilda-djur/stora-rovdjur/licensjakt-pa-lodjur/licensjakt-pa-lodjur-2018>> accessed 16 December 2018.

³⁰⁶¹ 'Jakt på järv' (*Naturvårdsverket*) <<https://www.naturvardsverket.se/Var-natur/Jakt/Jakt-pa-rovdjur/Jakt-pa-jarv/>> accessed 16 December 2018; Erik Ågren, *Licensjakt på varg 2018* (Statens Veterinärmedicinska Anstalt) 2.

³⁰⁶² Hunting Act (1987:259) ss 42a–51b.

³⁰⁶³ *ibid* 43, 45.

³⁰⁶⁴ *ibid* 45.

³⁰⁶⁵ Elena Kantorowicz-Reznichenko, 'Day Fines: Reviving the Idea and Reversing the (Costly) Punitive Trend' [2018] *American Criminal Law Review* 333, 6, 7, 12.

³⁰⁶⁶ *ibid* 6, 7.

³⁰⁶⁷ Hunting Act (1987:259) s 44.

³⁰⁶⁸ *ibid* 48.

³⁰⁶⁹ *ibid* 49.

³⁰⁷⁰ Large Predator Ordinance (2009:1263).

become extinct within Sweden.³⁰⁷¹ Given the potential for conflict between humans and the large predators, the management of these species is supposed to be conducted in a way which ‘promotes ... coexistence’ and which limits damage and injuries caused by the predators.³⁰⁷²

The predators are protected by the establishment of predator management areas, with the Arctic region of Sweden included in the northern rovdjursförvaltningsområdet or northern predator management area.³⁰⁷³ Each management area is overseen by a samverkansråd or coordinating council which works with the County Administrative Board and, in the case of the northern and central predator management areas, with the Sámi Parliament.³⁰⁷⁴ Together these bodies propose minimum population numbers for the large predators within their predator management area and the counties included in that area, which are then adopted by the Swedish Environmental Protection Agency.³⁰⁷⁵ Alongside this, the County Administrative Boards will establish a predator management plan for each county and the coordinating council will produce overall guidelines for the protection of predators.³⁰⁷⁶ The County Administrative Boards are responsible for tracking the number of predators which reside in their county and for taking an annual inventory.³⁰⁷⁷

In 2013, the Riksdag issued a decision on a sustainable predator policy which states that the Swedish Environmental Protection Agency should prepare national predator management plans for each of the bear, wolf, wolverine, lynx and golden eagle.³⁰⁷⁸ The purpose of the plans is to ensure that the predators ‘shall achieve and maintain favourable conservation status under the Habitats and Species Directive at the same time as domestic animal husbandry is not significantly compromised and socio-economic factors are taken into consideration’.³⁰⁷⁹ The first of the national predator management plans were published

³⁰⁷¹ *ibid* 1.

³⁰⁷² *ibid*.

³⁰⁷³ *ibid* 2.

³⁰⁷⁴ *ibid* 3.

³⁰⁷⁵ *ibid* 4–5.

³⁰⁷⁶ *ibid* 7.

³⁰⁷⁷ *ibid* 8.

³⁰⁷⁸ Government Proposal on a Sustainable Predator Policy 2012/13:191 (Regeringens Proposition En Hållbar Rovdjurspolitik).

³⁰⁷⁹ *ibid*.

in 2013 and 2014 for the period 2014-2019 and will be updated regularly.³⁰⁸⁰ Together the regional and national predator management plans, and the minimum population numbers provide for the protection of large predators within Sweden.

E.5. Habitat Protection

Habitat protection plays an important role in the protection of species within Sweden. Up to 14% of Sweden is protected in some form.³⁰⁸¹ The Environmental Code provides for the designation of various types of land protection, the most important of which are the national parks and the nature reserves. These two types of habitat protection are found within the Swedish Arctic and they are discussed below. Other types of habitat protection which are beyond the scope of this thesis are culture reserves, natural monuments, habitat protection areas, wildlife and plant sanctuaries, shore protection areas, environmental protection areas, and water protection areas.³⁰⁸²

E.5.1. National Parks

The highest level of habitat protection under Swedish environmental law is given to areas of land which are designated as national parks. Sweden was the first country in Europe to create national parks, which it did as early as 1909 when nine parks were established by the National Parks Act 1909.³⁰⁸³ Four of these original national parks were located in Swedish Lapland.³⁰⁸⁴

According to Chapter 7, Section 2 of the Environmental Code, national parks are designated by the Swedish Government.³⁰⁸⁵ In order to designate land (or water) as a national park, the Regeringen (Government) must first ensure that the area in question is in public ownership and must then seek the consent of the Riksdag.³⁰⁸⁶ National parks aim to

³⁰⁸⁰ *Nationell Förvaltningsplan för Björn: 2014-2019* (Naturvårdsverket 2014); *Nationell Förvaltningsplan för Varg: 2014-2019* (Sverige Naturvårdsverket 2014); *Nationell Förvaltningsplan för Järv: 2014-2019* (Sverige Naturvårdsverket 2014); *Nationell Förvaltningsplan för Kungsörn: 2013-2017* (Sverige Naturvårdsverket 2013); *Nationell Förvaltningsplan för Lodjur: 2014-2019* (Sverige Naturvårdsverket 2014).

³⁰⁸¹ 'Protected Areas 2016' (*Statistiska Centralbyrån*, 24 May 2017) <<http://www.scb.se/en/finding-statistics/statistics-by-subject-area/environment/land-use/protected-nature/pong/statistical-news/protected-nature-2016/>> accessed 27 June 2019.

³⁰⁸² Swedish Environmental Code (1998:808) ch 7.

³⁰⁸³ Swedish National Parks Act 1909.

³⁰⁸⁴ *ibid.*

³⁰⁸⁵ Swedish Environmental Code (1998:808) s 7(2).

³⁰⁸⁶ *ibid.*

preserve ‘large contiguous areas’ which represent particular landscape types which remain in their natural state.³⁰⁸⁷ Generally, land designated as a national park will be ‘essentially unchanged’ by human intervention.³⁰⁸⁸ There are no specific rules surrounding the use, management or protection of national parks found in the Swedish Environmental Code but the act does permit the Regeringen to issue ‘rules concerning the upkeep and management of national parks’ or to restrict the right to use land or water situated within a designated national park.³⁰⁸⁹

There are currently 30 national parks in Sweden, the most recently designated being Åsnen which became a national park in 2018.³⁰⁹⁰ Sweden’s national parks have been described as ‘compris[ing] a magnificent mosaic of different landscape types – from the leafy beech forests of Söderåsen to Sarek’s grandiose alpine world’.³⁰⁹¹ About 90% of the national parks are located in mountainous regions although there are also some coastal parks such as the archipelago of Haparanda.³⁰⁹² Of the 30 national parks, six are located north of the Arctic Circle.³⁰⁹³ Despite their fairly small number, the national parks in Lapland (which includes the six north of the Arctic Circle and two others just to the south) make up 95% of the area of land protected as national parks in the whole of Sweden.³⁰⁹⁴ The Arctic national parks found in Sweden are the Muddus (Muttos in Sámi), Sarek, Stora Sjöfallet (Stuor Muorkke), Padjelanta (Badjelánnda), Abisko and Vadvetjåkka National Parks.³⁰⁹⁵

³⁰⁸⁷ *ibid.*

³⁰⁸⁸ *ibid.*

³⁰⁸⁹ *ibid* 7(3).

³⁰⁹⁰ ‘Discover Sweden’s National Parks’ (*Swedish Environmental Protection Agency*)

<<http://www.swedishepa.se/Enjoying-nature/Protected-areas/National-Parks/Discover-Swedens-national-parks/>> accessed 8 October 2018; ‘Åsnen National Park’ (*Sveriges nationalparker*)

<<http://www.nationalparksofsweden.com/choose-park---list/asnen-national-park/>> accessed 8 October 2018.

³⁰⁹¹ ‘Sweden’s 29 National Parks: A Guide to Our Finest Landscapes’

<<http://www.swedishepa.se/Documents/publikationer6400/978-91-620-8654-1.pdf?pid=8311>> accessed 8 October 2018.

³⁰⁹² *ibid.*

³⁰⁹³ *ibid.*

³⁰⁹⁴ ‘Our National Parks – a Natural Place to Visit’ (*Swedish Lapland*)

<<https://www.swedishlapland.com/stories/our-national-parks-a-natural-place-to-visit/>> accessed 8 October 2018.

³⁰⁹⁵ ‘Discover Sweden’s National Parks’ (n 3090).

E.5.2. Nature Reserves

Unlike in Norway, the designation of nature reserve is not the highest level of protection in Sweden, as national parks are considered to be the mostly highly protected habitats.³⁰⁹⁶ There are, however, far more nature reserves than national parks and they therefore play an important role in habitat protection in Sweden.³⁰⁹⁷ While national parks are established by central government, nature reserves are designated by county administrative boards or the local municipality and while national parks can only be created on public land, nature reserves may be declared over land and water which is in either public or private ownership.³⁰⁹⁸ When a nature reserve is created, the authority responsible for the reserve must state its reasons for creating the reserve.³⁰⁹⁹ There are four acceptable reasons for establishing a nature reserve: the preservation of biological diversity, the protection and preservation of ‘valuable natural environments’, protecting land or water to be used for ‘outdoor recreation’ and where the designation is necessary to protect or allow the recovery of land which is either a ‘valuable natural environment’ or for use as a habitat by ‘species that are worthy of preservation’.³¹⁰⁰ This is quite a broad spectrum of reasons for establishing a nature reserve and the inclusion of outdoor recreation allows for nature reserves to be established even when their main purpose is not habitat, landscape or biodiversity protection, unlike in many other countries where designation as a nature reserve is strictly on the basis of environmental protection and not for leisure pursuits.

Nature reserves are far more numerous than national parks with a total of 4,737 nature reserves located across Sweden, making up approximately 84% of the land protected under the Environmental Code.³¹⁰¹ There are 388 nature reserves located in Norrbotten County, covering almost 2 million hectares across the county.³¹⁰² Nature reserves are particularly prominent in the municipality of Jokkmokk where 47.3% of the total area of the municipality is protected with some form of conservation protection; there are a total of 50

³⁰⁹⁶ Olle Höjer and others, *Swedish Nature Conservation: 100 Years* (Naturvårdsverket 2009) 30.

³⁰⁹⁷ *ibid* 29.

³⁰⁹⁸ Swedish Environmental Code (1998:808) ss 7(2), (4), (6); Höjer and others (n 3096) 29.

³⁰⁹⁹ Swedish Environmental Code (1998:808) s 7(5).

³¹⁰⁰ *ibid* 7(4).

³¹⁰¹ ‘Protected Nature in Sweden 2017’ <<http://www.scb.se/en/finding-statistics/statistics-by-subject-area/environment/land-use/protected-nature/pong/statistical-news/protected-nature-2017/>> accessed 10 October 2018.

³¹⁰² *ibid*.

separate nature reserves within the municipality, accounting for 442,495 hectares of land and water.³¹⁰³

E.6. Case Studies

E.6.1. *Public Prosecutors v SEJ*

RH 2000:51

Haparanda District Court;

Court of Appeal of Upper Norrland

In 1997, the Norrbotten County Administrative Board designated a Hunting Management Area (jaktvårdsområde) in the vicinity of the village of Jänkisjärvi in Arctic Sweden.³¹⁰⁴ Hunting management areas were established under the Act on Hunting Management Areas 1980 which allowed groups of landowners to pool their hunting rights.³¹⁰⁵ The act was repealed in 2001 and replaced with the Act on Game Conservation Areas 2000.³¹⁰⁶ The permit for the Hunting Management Area permitted the taking of five male adult moose and seven calves per year.³¹⁰⁷ At the annual general meeting of the Hunting Management Area, hunters were warned that all hunting was at their own risk and that they should be careful to ensure that they had accurately identified their target before shooting.³¹⁰⁸

By 17 October 1997, the quota for the taking of adult moose had been fulfilled.³¹⁰⁹ On that day, the accused, SEJ, who was an experienced hunter, was the hunt leader with four other hunters also active that day.³¹¹⁰ SEJ was ensconced in a hunting tower from which he had a clear view of the surrounding area, including along a cleared gap between the trees for over 100 metres.³¹¹¹ SEJ attested that he heard movement in the trees and then spotted a large moose without antlers followed by a smaller moose.³¹¹² He felt sure that the first moose was a female adult and the second moose was its calf.³¹¹³ He fired but then saw two

³¹⁰³ *ibid.*

³¹⁰⁴ *Public Prosecutors v SEJ* (n 339) 1.

³¹⁰⁵ Act on Hunting Management Areas (Lag om Jaktvårdsområden) (1980:894).

³¹⁰⁶ Act on Game Conservation Areas (Lag om Viltvårdsområden) (2000:592).

³¹⁰⁷ *Public Prosecutors v SEJ* (n 339) 1.

³¹⁰⁸ *ibid.*

³¹⁰⁹ *ibid.*

³¹¹⁰ *ibid* 1–2.

³¹¹¹ *ibid* 1.

³¹¹² *ibid* 2.

³¹¹³ *ibid.*

more smaller moose following the moose at which he had shot.³¹¹⁴ At this point he realised that he had made a mistake: the first moose was a large male moose, followed by a female moose and her two calves.³¹¹⁵ Initially he could not find the wounded moose and so, thinking that his rifle was faulty, he went home to get another gun, without telling anyone else what had happened.³¹¹⁶ When he returned, he found the wounded moose and ascertained that it was an adult female moose.³¹¹⁷ He was upset because he feared that he had done something wrong although he was not aware of the quota or that it had been fulfilled.³¹¹⁸

SEJ reported the incident to the overall hunt leader and the district chairperson who advised him that although his actions were not criminal, he should make a report to the police.³¹¹⁹ He did this the following Monday as the incident had taken place on a Friday.³¹²⁰ The police investigated and SEJ was charged with killing a moose in violation of the licence conditions.³¹²¹

The District Court concluded that the moose which SEJ had killed was a large female moose of approximately 200kg, which is three to four times the size of a calf.³¹²² They believed that an experienced hunter such as SEJ should have realised that the moose was too large to be a calf and should also have recognised that the moose had a long head which is indicative of it being an adult female moose because calves have much shorter heads.³¹²³ The court found that he had not shot the moose intentionally and that his behaviour after the incident could be explained by the fact that he was embarrassed.³¹²⁴ The court held that his actions were negligent but that because they were not intentional, they would not be considered to be grossly negligent.³¹²⁵ He was therefore found guilty and sentenced to a high fine, the exact amount not being reported.³¹²⁶

³¹¹⁴ *ibid.*

³¹¹⁵ *ibid.*

³¹¹⁶ *ibid.*

³¹¹⁷ *ibid.*

³¹¹⁸ *ibid.*

³¹¹⁹ *ibid.*

³¹²⁰ *ibid.*

³¹²¹ *ibid.*

³¹²² *ibid.*

³¹²³ *ibid.*

³¹²⁴ *ibid.*

³¹²⁵ *ibid.*

³¹²⁶ *ibid.*

SEJ appealed the conviction and the prosecutor appealed the sentence.³¹²⁷ The Court of Appeal for Upper Norrland heard that the offence under section 43 of the Hunting Act 1987, as amended, required the commission of an act of gross negligence; simple negligence was not sufficient.³¹²⁸ The court referred to the preparatory materials for the amendment to section 43 which explained that the purpose of the amendment was to criminalise deliberate and careless behaviour, while excluding those who were willing to follow the rules but had failed to do so.³¹²⁹ In this case, the accused was an experienced hunter, in charge of the day's hunt, who should easily have been able to tell the difference between a calf and a large adult female moose, particularly given that he had a clear view.³¹³⁰ Had he been more careful and taken more time to assess the situation properly, he would not have shot the moose.³¹³¹ The court held that his actions were therefore sufficient to be classed as gross negligence and upheld the conviction.³¹³² The District Court had imposed a high level fine and the Court of Appeal ordered that although SEJ remained convicted, the level of the fine was too high and should be reduced to 80 days (ie the equivalent of 80 days' salary after allowances have been made for living expenses).³¹³³

E.6.2. *Public Prosecutors v HÖ et al.*

NJA 2008: 106

Haparanda District Court;

Court of Appeal for Upper Norrland;

Supreme Court of Sweden

The village of Kuivakangas is approximately 8 miles south of the Arctic Circle but given how few cases there are from the Swedish court system and given how close it is to the Arctic, it is included here as a case study.

³¹²⁷ *ibid.*

³¹²⁸ *ibid* 3; Hunting Act (1987:259) s 43; Preparatory Works 1994/95:23 s 67.

³¹²⁹ *Public Prosecutors v SEJ* (n 339) 3.

³¹³⁰ *ibid.*

³¹³¹ *ibid.*

³¹³² *ibid.*

³¹³³ *ibid.*

HÖ and nine other defendants were landowners whose land was included in the Kuivakangas Game Conservation Area in Norrbotten County, right on the border with Finland.³¹³⁴ The Game Conservation Area Association had applied for, and been granted, a communal permit for hunting on the land managed by the association.³¹³⁵ The association had chosen to create three separate hunting teams and had distributed the quota among those teams.³¹³⁶ However, the defendants had been excluded from those teams and not granted a share of the hunting quota despite them owning land in the Game Conservation Area over which they had a right to hunt.³¹³⁷ The issuing of the communal permit precluded the defendants from applying for their own hunting permit.³¹³⁸

The defendants, incensed at having, as they saw it, their hunting rights removed from them, established two additional hunting teams and proceeded to hunt moose in the Game Conservation Area.³¹³⁹ They were each charged with intentionally or through gross negligence hunting without or in breach of a hunting permit or licence which is an offence under section 43 of the Hunting Act 1987.³¹⁴⁰

The defendants admitted that, in the years 2003 and 2004, they had shot the number of moose which the prosecutor claimed (five adults and three calves) but they argued that the Game Conservation Act did not allow the Game Conservation Area Association to deprive them of the hunting rights on their own land, that they had not committed an offence because they held a right to hunt and that the Game Conservation Area Association was not authorised to impose decisions with the status of binding law on their members.³¹⁴¹

The main question for the court was whether or not the laws on the creation and powers of a Game Conservation Area Association were contrary to the Swedish Constitution (the provisions on private property or the authorisation of decision making power) or the

³¹³⁴ *Public Prosecutors v Hö et al* (n 339) 1.

³¹³⁵ *ibid.*

³¹³⁶ *ibid.*

³¹³⁷ *ibid.*

³¹³⁸ *ibid.*

³¹³⁹ *ibid.*

³¹⁴⁰ *ibid.*; Hunting Act (1987:259) s 43.

³¹⁴¹ *Public Prosecutors v Hö et al* (n 339) 1–2, 6; Act on Game Conservation Areas (Lag om Viltvårdsområden) (2000:592).

European Convention on the Protection of Human Rights and Fundamental Freedoms (Article 1 of the First Additional Protocol).³¹⁴²

On 8 November 2005, Judge Lindmark of Haparanda District Court ruled that the defendants were guilty of the offences for which they had been charged.³¹⁴³ The defendants had shot the moose and had done so without a permit or licence.³¹⁴⁴ On the point of whether the decision of the Game Conservation Area Association was contrary to the constitutional protection of private property rights, the court held that the right was not absolute but had to be balanced with the public interest and the public benefit derived from the care of game species was greater than the inconvenience caused to the property holders.³¹⁴⁵ The property holders themselves also benefitted from their access to a larger area in which to hunt and cannot be said to have been deprived of any property.³¹⁴⁶ In considering whether or not the decision making power of the Game Conservation Area Association was beyond the authority of the Constitution, the court relied on the preparatory materials for the Game Conservation Areas Act and previous court authority, both of which indicated that decisions which were limited in terms of the locality to which they apply and to a small number of property or rights holders could not be considered to have the form of a legal norm and therefore did not contravene the Constitution.³¹⁴⁷ The court found that the application for a hunting licence was made by the Game Conservation Area Association and that each of the members had a share in the licence but not in such a way that they could use that licence on their own without the consent of the association as a whole.³¹⁴⁸ As such, the defendants, in hunting moose in a way which was contrary to the decision of the association, were hunting without a licence.³¹⁴⁹ They were therefore guilty of an offence under section 43 of the Hunting Act 1987 and the court sentenced each of the defendants to day fines, although the number of days was not published.³¹⁵⁰

³¹⁴² *Public Prosecutors v HÖ et al* (n 339) 2; Regeringsformen (Constitution of Sweden - Instrument of Government) 1974, ch 2, art 18 (now art 15), ch 8, art 7; European Convention for the Protection of Human Rights and Fundamental Freedoms 1950, art 1 of the First Additional Protocol.

³¹⁴³ *Public Prosecutors v HÖ et al* (n 339) 4.

³¹⁴⁴ *ibid.*

³¹⁴⁵ *ibid* 2.

³¹⁴⁶ *ibid.*

³¹⁴⁷ *ibid* 3.

³¹⁴⁸ *ibid* 3–4.

³¹⁴⁹ *ibid* 4.

³¹⁵⁰ *ibid.*

The defendants appealed the conviction.³¹⁵¹ In their judgment, the Court of Appeal took a different approach to the District Court.³¹⁵² Firstly, they found that the defendants had hunted on land over which they had a hunting right as there was no provision under the Hunting Act (or in the preparatory works) for a Game Conservation Area Association to take over the hunting rights of the property owners within a Game Management Area.³¹⁵³ Secondly, the licence which had been issued to the Kuivakangas Game Conservation Area was a collective licence allowing the taking of 23 adult moose in 2003 and 17 adult moose in 2004.³¹⁵⁴ The prosecutor had not alleged that more than this number of moose had been taken in total.³¹⁵⁵ Thirdly, the court found that although the Game Conservation Area Association had the right to decide how the quota allocated to it was divided, these decisions had no authority in law and violation of them was a matter for the association, not a criminal offence.³¹⁵⁶ The court therefore dismissed the convictions of all of the defendants.³¹⁵⁷

The Kuivakangas Game Conservation Area Association appealed the decision to the Supreme Court.³¹⁵⁸ Before the Supreme Court could hear the case, it was dropped for nine of the defendants, leaving only the acquittal of HÖ in dispute.³¹⁵⁹ In Swedish law, a party against whom a crime has been committed, or a party considered to be a plaintiff, is entitled to appeal an acquittal to a higher court even if the prosecution chooses not to appeal.³¹⁶⁰ The question for the court was whether the Game Conservation Area Association in this case was a plaintiff or a victim and therefore entitled to seek leave to appeal.³¹⁶¹

Giving judgment on 10 December 2008, the court found that the previous law, the Act on Hunting Management Areas, had explicitly stated that where a person violated a decision of the Hunting Management Area Association, the act could be a criminal offence with the

³¹⁵¹ *ibid.*

³¹⁵² *ibid.*

³¹⁵³ *ibid.*

³¹⁵⁴ *ibid.*

³¹⁵⁵ *ibid.*

³¹⁵⁶ *ibid* 4–5.

³¹⁵⁷ *ibid.*

³¹⁵⁸ *ibid* 5.

³¹⁵⁹ *ibid.*

³¹⁶⁰ *ibid* 6.

³¹⁶¹ *ibid.*

association being considered to be a plaintiff.³¹⁶² However, this provision was not transferred when the act was replaced by the Act on Game Conservation Areas.³¹⁶³ Instead, the new act allowed the association to suspend a hunter for up to a year for a violation of the association's rules and also stated that any game killed in commission of the violation would 'accrue to the association'.³¹⁶⁴ As a result, a Game Conservation Area Association could not be considered to be a plaintiff automatically.³¹⁶⁵

The court also considered whether the association could be a victim under the general provisions of Swedish law.³¹⁶⁶ The court held that although the association had been granted a licence to hunt moose, the licence itself did not grant the association any hunting rights; the hunting rights remain with the landowners.³¹⁶⁷ In hunting without permission from the association, HÖ had violated the association's rules but had not hunted on land over which the association had any property or hunting right.³¹⁶⁸ Where any offence had occurred, it was not against the property or hunting rights of the association.³¹⁶⁹ The Supreme Court therefore refused to recognise the association as a victim and rejected the appeal.³¹⁷⁰

³¹⁶² *ibid* 7; Act on Hunting Management Areas (Lag om Jaktvårdsområden) (1980:894) s 32(2).

³¹⁶³ *Public Prosecutors v HÖ et al* (n 339) 7; Act on Game Conservation Areas (Lag om Viltvårdsområden) (2000:592).

³¹⁶⁴ *Public Prosecutors v HÖ et al* (n 339) 7; Act on Game Conservation Areas (Lag om Viltvårdsområden) (2000:592) s 26.

³¹⁶⁵ *Public Prosecutors v HÖ et al* (n 339) 7.

³¹⁶⁶ *ibid*.

³¹⁶⁷ *ibid* 7–8.

³¹⁶⁸ *ibid* 8.

³¹⁶⁹ *ibid*.

³¹⁷⁰ *ibid*.

F. Finland

F.1. History and Geography

Finland is the most northerly country in mainland Europe located almost entirely between the 60 and 70 degree parallels.³¹⁷¹ All but a very small section in the southernmost part of the country lies north of the 60 degree parallel and a third of Finland's territory lies beyond the Arctic Circle.³¹⁷² Finland is bordered by Norway to the north, Sweden to the west and Russia to the east.³¹⁷³ In the south and to the west is the Gulf of Bothnia and the Baltic Sea; to the southeast is the Gulf of Finland which separates Finland and Estonia.³¹⁷⁴

Finland's northerly position means that it has long, dark winters and short summers with long days. In Lapland, Finland experiences both polar night and midnight sun and in the far north, the sun does not rise between late November and mid-January each year. Polar night is experienced in Lapland as far south as Rovaniemi Airport (which is just north of the city of Rovaniemi).

Finland is primarily a land of forests, lakes and low, rolling hills; almost 73% of its 338,145 square kilometres is covered in forest.³¹⁷⁵ Another 10% of Finland's surface area is made up of water, which, in the past, allowed easy transport of goods and people by boat in the summer and by ice sled in the winter.³¹⁷⁶ Finland is generally quite flat; only in the very far north is there any land with a height of over a thousand metres above sea level.³¹⁷⁷

Around one third of Finland is located north of the Arctic Circle, all of it forming part of the Region of Lapland. Lapland is the largest and most northerly region within Finland; it is also the least densely populated with only 3.4% of the total population of the country living there. The regional capital is the city of Rovaniemi which is located just to the south

³¹⁷¹ *The Times Comprehensive Atlas of the World* (n 280) 51.

³¹⁷² *ibid.*

³¹⁷³ *ibid.*

³¹⁷⁴ *ibid.*

³¹⁷⁵ Central Intelligence Agency, 'Finland' (*The World Factbook*)

<<https://www.cia.gov/library/publications/the-world-factbook/geos/fi.html>> accessed 4 July 2019.

³¹⁷⁶ Fred Singleton and Anthony F Upton, *A Short History of Finland* (2nd edn, Cambridge University Press 2002) 4.

³¹⁷⁷ David Kirby, *A Concise History of Finland* (Cambridge University Press 2006) 1.

of the Arctic Circle and which boasts a thriving tourist economy as well as all of the amenities of a modern European city. The countryside in Lapland is mostly spruce, birch and pine forests, interspersed with bogs and lakes, the largest of which is Lake Inari at over 1,000 km². In the east of the region the forests give way to rocky, barren fells. There is snow cover throughout Lapland for over half of the year, generally from mid-October until May.

Finland's history is inextricably linked to that of its much more powerful Eastern and Western neighbours. For over six centuries the country was ruled by the crown of Sweden although the border with Russia changed frequently as land was gained and lost. In the nineteenth century control moved from Sweden to Russia and then, as recently as 1917, Finland gained independence.

It is believed that Birger Jarl, the Swedish regent, was the first to establish Swedish rule in Finland when he invaded the land in the Second Swedish Crusade in 1249.³¹⁷⁸ From this time, and for the next seven centuries, Finland was under the control of the Swedish Crown and the Finland was fully integrated into the King's realm.³¹⁷⁹ Finland was overseen by the Capitaneus Finlandiae and certain representatives of Finland were even allowed to vote in the elections for the Swedish King from 1362.³¹⁸⁰

Finland was affected by the civil war which raged in Sweden during the 1380s and, as part of the eventual outcome, came under the authority of Queen Margaret I of Denmark when she unified the kingdoms of Norway, Sweden and Denmark in 1389 in a union known as the Kalmar Union.³¹⁸¹ When the Kalmar Union broke down in 1523 Gustav Vasa was declared king of Sweden and, with it, Finland.³¹⁸² For the next century and a half, Finland remained part of the kingdom of Sweden, except for the easternmost part which was won by Russia during the Great Northern War in 1700-1721.³¹⁸³

³¹⁷⁸ Singleton and Upton (n 3176) 21.

³¹⁷⁹ Kirby (n 3177) 9.

³¹⁸⁰ Singleton and Upton (n 3176) 23.

³¹⁸¹ Bo Stråth, 'The Idea of a Scandinavian Nation' in Pirkko Hautamäki and Lars-Folke Landgrén (eds), *People, Citizen, Nation* (Helsinki Renvall Institute 2005) 209; Harald Gustafsson, 'A State That Failed?' (2006) 31 *Scandinavian Journal of History* 205, 207.

³¹⁸² Kirby (n 3177) 17; Gustafsson (n 3181) 211; Jason Edward Lavery, *The History of Finland* (Greenwood Publishing Group 2006) 38.

³¹⁸³ Lavery (n 3182) 43–44.

Between 1808 and 1809, Sweden and Russia found themselves at war. The Russian army was stronger and defeated Sweden, taking control of Finland in September 1809 when Sweden signed the Treaty of Fredrikshamn. Russian Tsar, Alexander I, declared Finland to be a Grand Duchy within the Russian empire, thereby giving Finland more independence than it had ever had before.³¹⁸⁴ As a Grand Duchy, Finland was able to legislate over internal affairs but this led to a significant increase in Finnish nationalism. By the end of the century, Russia was becoming concerned about the levels of nationalistic feeling within Finland and began a deliberate policy of Russification, aiming to integrate Finland more fully into the Russian empire.³¹⁸⁵ The policy failed. Taking advantage of the chaos caused by the Russian Revolution and World War One, and following the announcement by the Bolsheviks that the people of Russia should be allowed self-determination, Finland declared independence in 1917.³¹⁸⁶ The Finnish parliament had intended to create a constitutional monarchy and had selected a German prince, Friedrich Karl, as their new King.³¹⁸⁷ When Germany was defeated at the end of World War One, this became untenable and, unexpectedly, Finland became a republic.³¹⁸⁸

By the end of the Second World War, having fought off a Russian invasion and sided with the Nazis, Finland, though still independent, was a devastated country, war ravaged, with little economy, suffering from huge losses in manpower and facing paying draconian reparations to the Russians.³¹⁸⁹ In the second half of the twentieth century, it transformed itself into a country with a strong, stable economy with a generous welfare state. By the time Finland joined the European Union in 1995 it was no longer an impoverished rural nation reliant on agriculture; instead it had a powerful market economy combined with a high standard of living.³¹⁹⁰ In 2017 Finland celebrated one hundred years of independence.

³¹⁸⁴ H Arnold Barton, 'Finland and Norway 1809-1917: A Comparative Perspective' (2006) 31 *Scandinavian Journal of History* 221, 221.

³¹⁸⁵ *ibid* 222–223.

³¹⁸⁶ *ibid* 225; Declaration of the Rights of the Peoples of Russia (Декларация прав народов России) 15 November 1917.

³¹⁸⁷ Martin Scheinin, 'Constitutional Law and Human Rights Law' in Juha Pöyhönen (ed), *An Introduction to Finnish Law* (Finnish Lawyers' Publishing 1993) 30.

³¹⁸⁸ *ibid*.

³¹⁸⁹ Seppo Ervasti and Jaakki Vesonei (eds), *The Battle of Finland's Independence 1939-1945* (Jussi Soressalo tr, 4th edn, Vetres 2013) 6–7.

³¹⁹⁰ Act of 29 August 1994 Concerning the Conditions of Accession of the Kingdom of Norway, the Republic of Austria, the Republic of Finland and the Kingdom of Sweden and the Adjustments to the Treaties on

As an independent and democratic nation, it has maintained its reputation for gender equality, a comprehensive welfare state and impressive levels of education.³¹⁹¹

F.2. Government and Legal System

F.2.1. Government

Finland is a sovereign republic with the power of the state vested, by the Constitution, in the people of Finland.³¹⁹² The Constitution also defines a tripartite system of separation of governmental power.³¹⁹³ Legislative powers are exercised by the Eduskunta which also has the power to make decisions relating to state finances.³¹⁹⁴ Executive powers are exercised by the President and the Valtioneuvosto or government.³¹⁹⁵ Judicial powers are held and exercised by the courts who act independently from the legislator or executive.³¹⁹⁶ In all three branches, the exercise of public power will only be lawful if and when it is based in an act of the Eduskunta.³¹⁹⁷

The Eduskunta (parliament) is a unicameral legislative body, with no upper chamber.³¹⁹⁸ It has two hundred members, known as Representatives, each elected for a four year term of office.³¹⁹⁹ With power vested in the people, the Finnish Constitution explains that democracy ‘entails the right of individual to participate in and influence the development of society and his or her living conditions’.³²⁰⁰ This is achieved through the election of representatives of the people to the Eduskunta (parliament).³²⁰¹ Elections are carried out on the basis of proportional representation with the number of Representatives being

Which the European Union is Founded, Annex I - List Referred to in Article 29 of the Act of Accession - VIII Environment - E Conservation of Wild Fauna and Flora.

³¹⁹¹ *The Global Gender Gap Report* (World Economic Forum 2013); David Crouch, ‘Highly Trained, Respected and Free: Why Finland’s Teachers Are Different’ *The Guardian* (17 June 2015) <<https://www.theguardian.com/education/2015/jun/17/highly-trained-respected-and-free-why-finlands-teachers-are-different>> accessed 4 July 2019; Pauli Kettunen, ‘The Nordic Welfare State in Finland’ (2001) 26 *Scandinavian Journal of History* 225.

³¹⁹² Suomen Perustuslaki (Constitution of Finland) (731/1999), ch 1, s 1, 2.

³¹⁹³ *ibid*, ch 1, s 3.

³¹⁹⁴ *ibid*, ch 1, s 3.

³¹⁹⁵ *ibid*, ch 1, s 3.

³¹⁹⁶ *ibid*, ch 1, s 3.

³¹⁹⁷ *ibid*, ch 1, s 2, 3.

³¹⁹⁸ *ibid*, ch 3, s 24.

³¹⁹⁹ *ibid*, ch 3, s 24.

³²⁰⁰ *ibid*, ch 1, s 2.

³²⁰¹ *ibid*, ch 1, s 2.

elected from each of the thirteen electoral districts being decided according to the population of each district.³²⁰²

The President of the Republic of Finland, the Suomen Tasavallan Presidentti, is elected every six years by the Finnish electorate and may hold office for no more than two consecutive terms.³²⁰³ The President has a wide range of powers and responsibilities, many of which are set out in the constitution. The primary responsibility is that he holds, along with the government, the executive powers of the country.³²⁰⁴ The President generally makes decisions in relation to executive power on the basis of motions which are put to him by the relevant government minister and the government then implements the President's decision.³²⁰⁵

The President shares executive power with the Valtioneuvosto (government) which is led by the Pääministerin (prime minister).³²⁰⁶ The prime minister is elected by the Eduskunta and appointed by the President but not until the newly elected Eduskunta has negotiated a political programme and desired appointments to the government.³²⁰⁷ Once elected, the Pääministerin appoints a cabinet Ministereitä who each head a ministry.³²⁰⁸ The duty of the government is to wield executive power as set out in the constitution along with other administrative roles that are delegated to the government by the Eduskunta.³²⁰⁹

F.2.2. Legal System

Finland, like Sweden, has a Nordic legal system.³²¹⁰ This is a civil law system but one which, having no roots in Roman law, lacks the reliance on codification that a central European civil law system usually displays.³²¹¹ Although a minor source of law, judgments, even in the Supreme Court, are not binding and therefore there is much less reliance on judicial creation of law than would be found in a common law system.³²¹²

³²⁰² *ibid*, ch 3, s 25.

³²⁰³ *ibid*, ch 5, s 54.

³²⁰⁴ *ibid*, ch 5, s 57, 58.

³²⁰⁵ *ibid*, ch 5, s 58, 65.

³²⁰⁶ *ibid*, ch 5, s 61, 68.

³²⁰⁷ *ibid*, ch 5, s 61.

³²⁰⁸ *ibid*, ch 5, s 61, 68.

³²⁰⁹ *ibid*, ch 5, s 65.

³²¹⁰ Zweigert and Kötz (n 99) 276–285.

³²¹¹ *ibid*.

³²¹² Herbert M Kritzer (ed), *Legal Systems of the World*, vol II (ABC-CLIO 2002) 540.

F.2.3. Sources of Law

The primary source of law in Finland is the Constitution.³²¹³ Finland's first constitution was drafted shortly after the country declared independence from Russia in 1917.³²¹⁴ The Suomen Perustuslaki (Constitution of Finland) was rewritten just before the start of the new millennium.³²¹⁵ The new Constitution was adopted on 11 June 1999 and came into force on 1 March 2000.³²¹⁶ The aim of those drafting the new constitution was not to effect wholesale change but instead to harmonise the earlier constitutional documents and the various customs and conventions which had developed since 1919.³²¹⁷ The Constitution itself, like most constitutions, is considered to be a special form of legislation.³²¹⁸ As such, it is protected by a procedure which makes it much harder to amend or repeal than it is to amend or repeal an ordinary piece of legislation.³²¹⁹

As a civil law country, albeit a Nordic civil law country rather than a continental one, the main sources of law in Finland, after the Constitution, can be found in the Suomen Säädöskokoelma or the Finnish Statute Book.³²²⁰ Unlike in many civil law countries, there is no formal legal code (either civil or criminal) in Finland.³²²¹ Instead, the Finnish Statute Book lists the various formal documents which create and define the law.³²²² The statute book incorporates legislation from a number of different sources as stated in the Act on the Statutes of Finland (188/2000), namely acts of parliament, the decrees of the President, the government and the ministries, and some other subordinate legislation.³²²³ These are strongly binding sources of law.

³²¹³ Suomen Perustuslaki (Constitution of Finland) (731/1999).

³²¹⁴ Suomen Hallitusmuoto (Constitutional Act (Form of Government) of Finland) (94/1919).

³²¹⁵ Suomen Perustuslaki (Constitution of Finland) (731/1999).

³²¹⁶ *ibid.*

³²¹⁷ Pekka Lämsineva, 'Fundamental Principles of the Constitution of Finland' in Kimmo Nuotio, Sakari Melander and Merita Huomo-Kettunen (eds), *Introduction to Finnish Law and Legal Culture* (Faculty of Law, University of Helsinki 2012) 111.

³²¹⁸ Suomen Perustuslaki (Constitution of Finland) (731/1999), ch 6, s 73.

³²¹⁹ *ibid.*, ch 6, s 73.

³²²⁰ Sami Sarvilinna and Erika Bergström, 'Finnish Law on the Internet' (*GlobaLex*, 2018)

<<https://www.nyulawglobal.org/globalex/Finland1.html#Uusimmat>> accessed 28 July 2019.

³²²¹ *ibid.*

³²²² Act on the Statutes of Finland (Laki Suomen Säädöskokoelmasta) (188/2000); Sami Sarvilinna and Erika Bergström (n 3220).

³²²³ Act on the Statutes of Finland (Laki Suomen Säädöskokoelmasta) (188/2000), ch 2, s 2.

There are also a number of weakly binding sources which a judge should take into account when a judge is deciding a case.³²²⁴ These include the preparatory works and the decisions of the Korkein Oikeus (or Supreme Court) and the Korkein Hallinto-oikeus (or the Supreme Administrative Court) which have been published in the legal yearbooks.³²²⁵ Decisions are not binding on lower courts but do act as influential precedents.³²²⁶ Decisions of courts other than the Supreme Courts are considered to be ‘permitted sources of law’.³²²⁷ This means that they can be considered by other courts but are not binding on them.³²²⁸

F.2.4. Courts

Like in Sweden, the Finnish court system is made up of three different branches.³²²⁹ The general courts handle matters relating to criminal and private law, the administrative courts settle disputes between the state and private parties and the specialist courts deal with claims in their specialist areas.³²³⁰ There is no specialist environmental court so matters of environmental law are heard by the general courts or the administrative courts as appropriate.³²³¹ In the general courts, the first instance court is the Käräjäoikeus or District Court which hears most civil and criminal cases.³²³² District courts are led by a Chief Judge who is assisted by legally trained District Judges and lay judges although the latter do not sit on civil cases.³²³³ Appeals, which usually take the form of a complete rehearing of the evidence, are to the Hovioikeus or Court of Appeal, which for the Arctic region of Finland is located in Rovaniemi.³²³⁴ The highest court is the Korkein Oikeus or Supreme Court which sits in Helsinki.³²³⁵ Appeals to the Korkein Oikeus require permission to appeal which is only granted when a case raises an important point of law.³²³⁶ The Supreme Court has 19 justices who usually sit in panels of five.³²³⁷

³²²⁴ Aulis Aarnio, ‘On the Sources of Law’ in Kimmo Nuotio, Sakari Melander and Merita Huomo-Kettunen (eds), *Introduction to Finnish Law and Legal Culture* (Faculty of Law, University of Helsinki 2012) 53–54.

³²²⁵ *ibid*; Jaakko Husa, ‘Panorama of World’s Legal Systems - Focusing on Finland’ in Kimmo Nuotio, Sakari Melander and Merita Huomo-Kettunen (eds), *Introduction to Finnish Law and Legal Culture* (Faculty of Law, University of Helsinki 2012) 13; Sami Sarvilinna and Erika Bergström (n 3220).

³²²⁶ Juha Raitio, ‘The Source of Law – Doctrine and Reasoning in Finland’ (2012).

³²²⁷ *ibid*.

³²²⁸ *ibid*.

³²²⁹ Kritzer, *Legal Systems of the World* (n 3212) 542.

³²³⁰ *ibid*.

³²³¹ *ibid*.

³²³² *ibid* 542–544.

³²³³ *ibid*.

³²³⁴ *ibid*.

³²³⁵ *ibid*.

³²³⁶ *ibid*.

³²³⁷ *ibid*.

In the administrative courts, the courts of first instance are the eight Hallinto-oikeus or the Regional Administrative Courts.³²³⁸ The court with responsibility for Lapland is located in Rovaniemi.³²³⁹ Although these courts are first instance courts, most public decisions will have already been appealed within the administrative system before they reach the Administrative Courts.³²⁴⁰ Appeals from the Regional Administrative Courts are to the Korkein Hallinto-oikeus, the Supreme Administrative Court.³²⁴¹ Some decisions of the Administrative Courts require permission to appeal to the Supreme Administrative Court but most do not.³²⁴² The Supreme Administrative Court is divided into three chambers, with environmental matters being heard in the first chamber.³²⁴³ There are 21 justices with five sitting in each chamber to hear cases.³²⁴⁴

F.3. Arctic Wildlife in Finland

The Finnish Arctic is, in comparison to other parts of Europe, ‘rugged’ with long, severe winters.³²⁴⁵ In comparison to other Arctic nations, however, Finland’s Arctic region, lying predominantly to the south of the tree line, is considerably less rugged and severe. The forests provide habitats to a wide range of deer and moose as well as mountain hare, Siberian flying squirrel and other small mammals such as rabbits, voles and shrews. There are Arctic foxes found in Lapland, and they are heavily protected, but their numbers are almost vanishingly small. Of the large carnivores which are found in Finland, the brown bear, lynx and wolverine are found north of the Arctic Circle, albeit in small numbers.³²⁴⁶ They are, however, iconic species in Finland and therefore have a strong cultural significance. Bird species such as ptarmigan, willow grouse and capercaillie are widespread as are wetland birds such as spotted redshank, wood sandpiper, dotterel and red-necked phalarope.³²⁴⁷ Many species, such as Lapland bunting, common murre, wigeon

³²³⁸ *ibid*; ‘Hallinto-Oikeudet’ (*Oikeus.fi*) <<https://oikeus.fi/tuomioistuimet/hallintooikeudet/fi/index.html>> accessed 26 July 2019.

³²³⁹ Kritzer, *Legal Systems of the World* (n 3212) 542–544; ‘Hallinto-Oikeudet’ (n 3238).

³²⁴⁰ ‘Hallinto-Oikeudet’ (n 3238).

³²⁴¹ Kritzer, *Legal Systems of the World* (n 3212) 542–544; ‘Hallinto-Oikeudet’ (n 3238); ‘Korkein Hallinto-Oikeus’ (*Korkein Hallinto-oikeus*) <<https://www.kho.fi/en/index.html>> accessed 26 July 2019.

³²⁴² Kritzer, *Legal Systems of the World* (n 3212) 542–544; ‘Korkein Hallinto-Oikeus’ (n 3241).

³²⁴³ Kritzer, *Legal Systems of the World* (n 3212) 542–544; ‘Korkein Hallinto-Oikeus’ (n 3241).

³²⁴⁴ Kritzer, *Legal Systems of the World* (n 3212) 542–544; ‘Korkein Hallinto-Oikeus’ (n 3241).

³²⁴⁵ *Hunting in Finland* (Suomen Riistakeskus 2018) 2.

³²⁴⁶ *ibid*.

³²⁴⁷ ‘Finnish Bird Specialities’ (*Finnature*) <<http://finnature.com/articles/finnish-specialities/>> accessed 15 March 2019.

and two barred crossbill, breed in Finnish Lapland, migrating south to warmer climates during the winter.³²⁴⁸ Finland's Arctic flora is more abundant than in other parts of the region. Lapland is covered in forests of Scots pine and birch trees.³²⁴⁹ In the forests, plants such as blueberries, crowberries, lichens and heather thrive as undergrowth; marshes teem with golden cloudberry.

Finland has no coastline north of the Arctic Circle as, while the southern parts of Lapland border the Gulf of Bothnia, the Arctic Circle skirts just to the north. As such, there are no marine species found within Finland's Arctic.³²⁵⁰

F.4. Species Protection

F.4.1. Finnish Red List

Finland, like the other European Arctic nations regularly publishes a Red List which provides details of the species which are threatened within Finland.³²⁵¹ The first Red List was published in 2000 but previous surveys of threatened species had been conducted in Finland since the 1980s.³²⁵² The Finnish Red List, as with the other Arctic Red Lists is based on the criteria set by the International Union for the Conservation of Nature, with species categorised as 'Regionally Extinct (RE), Extinct in the Wild (EW), Critically Endangered (CR), Endangered (EN), Vulnerable (VU), Near Threatened (NT), Data Deficient (DD), Least Concern (LC) and Not Evaluated (NE)'.³²⁵³ The most recent edition was published in March 2019 and it contains details of 22,416 Finnish species, almost 12% of which, and almost one third of the birds assessed, are considered to be threatened (extinct, endangered or vulnerable).³²⁵⁴ The main reason given for the increase in threat level since the previous edition in 2015 was the impact of habitat degradation, particularly in relation to forests and open areas such as meadows.³²⁵⁵ The Red List has no legal status but it has significant scientific authority, having been prepared by 170 experts across 18

³²⁴⁸ *ibid.*

³²⁴⁹ Chester (n 24) 442, 446–447.

³²⁵⁰ *ibid* 12–13.

³²⁵¹ Hyvärinen and others (n 434).

³²⁵² 'Earlier Evaluations of Threatened Species' (*Environment.fi*) <https://www.environment.fi/en-US/Nature/Species/Threatened_species/Earlier_evaluations_of_threatened_species> accessed 8 July 2019.

³²⁵³ *ibid.*

³²⁵⁴ Hyvärinen and others (n 434) 103.

³²⁵⁵ *ibid.*

different expert groups, and it is used to inform conservation measures, policies and to ensure that the Nature Conservation Act 1996 is kept up to date.³²⁵⁶

F.4.2. EU Habitats and Species Directive and Birds Directive

Finland joined the European Union in 1995, at which time, it became subject to the nature conservation directives of the European Union, the Birds Directive and the Habitats and Species Directive.³²⁵⁷ These directives have been discussed at length in the chapter about Sweden and the directives apply in Finland in the same way as they apply in Sweden (see E.4.3 above).

The Nature Conservation Act provides for the protection of species listed in the Birds Directive and the Habitats and Species Directive.³²⁵⁸ In Section 47, alongside the protections listed for species placed under a strict protection order (the highest level of protection under Finnish law), the act prohibits the ‘deterioration and destruction of habitats’ of species protected by the European directives where the habitat is required for ‘reaching or maintaining a favourable conservation status’ (see F.4.3 below).³²⁵⁹ The species which are protected by this prohibition, which can apply to private land where a notification procedure has occurred, or to public land, are those which are listed in Annex I of the Birds Directive (as protected endangered species) and Annex II of the Habitats and Species Directive (which lists species which must have their habitat protected).³²⁶⁰

The Nature Conservation Act also provides protection to the animal species which are listed in Annex IV(a) of the Habitats and Species Directive.³²⁶¹ The act lists those species which are found naturally in Finland in appendix 5 of the Nature Conservation Decree.³²⁶² The list includes 20 mammals, of which 11 are bats, with only the Northern bat and Daubenton’s bat found north of the Arctic Circle.³²⁶³ The other Arctic species on the list of mammals

³²⁵⁶ *ibid* 12.

³²⁵⁷ Birds Directive (2009/147/EC); Habitats and Species Directive (92/43/EEC).

³²⁵⁸ Nature Conservation Act (1096/1996) s 3; Birds Directive (2009/147/EC); Habitats and Species Directive (92/43/EEC).

³²⁵⁹ ‘Threatened Species’ (n 443).

³²⁶⁰ *ibid*; Birds Directive (2009/147/EC); Habitats and Species Directive (92/43/EEC).

³²⁶¹ Habitats and Species Directive (92/43/EEC), Annex IV(a).

³²⁶² Nature Conservation Act (1096/1996) s 49; Nature Conservation Decree (160/1997) s 23, Appendix 5.

³²⁶³ Yrjö Siivonen and Terhi Wermundsen, ‘Distribution and Foraging Habitats of Bats in Northern Finland: *Myotis Daubentonii* Occurs North of the Arctic Circle’ (2008) 12 *Vespertilio* 41.

are the lynx, brown bear, Siberian flying squirrel, Arctic fox and European otter.³²⁶⁴ The wolf is also included on the list but wolves are rarely found as far north of the Arctic and wolves are not protected in the reindeer herding area.³²⁶⁵ Further sections of appendix 5 list the reptiles, amphibians, molluscs, butterflies, beetles and dragonflies which are protected in the same manner, although the only Arctic species is the moor frog.³²⁶⁶ The ‘breeding sites and resting places’ of species on the list are protected through a prohibition on the ‘destruction and deterioration’ of such sites, although derogations from the prohibitions may be authorised by the Centre of Economic Development, Transport and the Environment (elinkeino-, liikenne ja ympäristökeskus or ELY-keskus, which are regional bodies tasked with implementing central governmental policies).³²⁶⁷

F.4.3. Nature Conservation Act and Nature Conservation Decree

Species protection in Finland is governed primarily by the Nature Conservation Act 1996, which, as has been explained above, implements the provisions of the Habitats and Species Directive and the Birds Directive in Finnish law.³²⁶⁸ The act aims to ensure the ‘protection and management’ of the nature and landscapes found within Finland.³²⁶⁹ The law has five stated purposes which are set out in section one and which include ‘maintaining biodiversity’, ‘conserving the beauty and scenic values of nature’ and ensuring that natural resources and the environment itself are used sustainably.³²⁷⁰ In order to meet these objectives, the act requires that nature conservation should aim to achieve, and then maintain, a ‘favourable conservation status’ for wildlife within Finland.³²⁷¹ For wildlife species the conservation status is considered to be ‘favourable’ where the species demonstrates the ability to survive, for the long term, in its natural habitat.³²⁷²

³²⁶⁴ Nature Conservation Decree (160/1997) s 23, Appendix 5.

³²⁶⁵ *ibid*, Appendix 5; *Management Plan for the Wolf Population in Finland* (Finnish Ministry of Agriculture and Forestry 2005) 14.

³²⁶⁶ Nature Conservation Decree (160/1997) s 23, Appendix 5.

³²⁶⁷ Nature Conservation Act (1096/1996) s 49.

³²⁶⁸ Nature Conservation Act (1096/1996); Birds Directive (2009/147/EC); Habitats and Species Directive (92/43/EEC).

³²⁶⁹ Nature Conservation Act (1096/1996) s 2.

³²⁷⁰ Nature Conservation Decree (160/1997) s 1.

³²⁷¹ Nature Conservation Act (1096/1996) s 5.

³²⁷² *ibid*.

The act applies to species found throughout Finland's land and territorial waters and in Finland's Exclusive Economic Zone.³²⁷³ It covers all species of 'wild flora and fauna' except those game and non-game species which are governed separately under the Hunting Act 1993.³²⁷⁴ The excluded species are listed by name in section 5 of the Hunting Act 1993 and it is therefore easy to tell whether or not a particular species is excluded from the protections of the Nature Conservation Act 1996.³²⁷⁵

The Nature Conservation Act 1996 provides direct protection for all species of mammal and for all species of birds (except those excluded under the Hunting Act 1993).³²⁷⁶ While the general protection only applies to mammals and birds, it can be extended to other animal species, by decree, where the existence of such a species is threatened or where protection is considered necessary for any other reason.³²⁷⁷ Animals included on this list can be protected either throughout Finland or only in certain regions.³²⁷⁸ The species currently protected in this way are listed in appendix 2 of the Nature Conservation Decree.³²⁷⁹ Appendix 2(a) lists the species protected throughout Finland and appendix 2(b) lists the species protected in the south of the country; there are currently no species which are only protected in northern Finland.³²⁸⁰ At present, there are 64 species of animal on the list, 26 of which are butterflies and 17 of which are beetles.³²⁸¹ There are also reptiles, amphibians, dragonflies, molluscs and true bugs included on the list.³²⁸² Protected species which are found in the Arctic include the viviparous lizard, moor frog, and butterflies such as the dingy Arctic fritillary and the Arctic woodland ringlet.³²⁸³

The protections under the act can also be extended, by decree, to wild plant species where their continued existence is threatened or where there is some other reason for

³²⁷³ *ibid* 37.

³²⁷⁴ *ibid*; Hunting Act (Metsästyslaki) (615/1993) s 5.

³²⁷⁵ Hunting Act (615/1993) s 5.

³²⁷⁶ Nature Conservation Act (1096/1996) s 37.

³²⁷⁷ *ibid* 38.

³²⁷⁸ *ibid*.

³²⁷⁹ Nature Conservation Decree (160/1997) s 18, Appendix 2(a), (b).

³²⁸⁰ *ibid*, Appendix 2(a), (b).

³²⁸¹ *ibid*, Appendix 2(a), (b).

³²⁸² *ibid*, Appendix 2(a), (b).

³²⁸³ *ibid*, Appendix 2(a); Chester (n 24) 399, 400, 413;; 'Arctic Woodland Ringlet, *Erebia Polaris* - Butterflies - NatureGate' <<http://www.luontoportti.com/suomi/en/perhosenet/arctic-woodland-ringlet>> accessed 26 February 2019.

protection.³²⁸⁴ The protection can either apply to the whole of Finland or only to parts of the country.³²⁸⁵ All of the plants currently protected in this way are listed in the appendices to the Nature Conservation Decree, with the plants protected nationally listed in appendix 3(a) and the plants protected in Lapland and the other northern regions, listed in appendix 3(c).³²⁸⁶ There are 135 species of vascular plant and thirteen species of moss protected throughout Finland, with nine species protected in the south and eight species protected in the north, including in Lapland.³²⁸⁷ Examples of Arctic plants protected are the Lapland rosebay, pygmy-flower rock-jasmine and Lapland buttercup.³²⁸⁸

Section 39 of the Nature Conservation Act 1996 provides a number of prohibitions relating to protected species of animal.³²⁸⁹ The act makes it unlawful to capture or kill a protected animal species deliberately.³²⁹⁰ It also makes it illegal to remove or destroy any eggs or other ‘developmental stages’ of an animal’s life cycle, such as frogspawn and other juvenile stages.³²⁹¹ As well as preventing the destruction of animals, and their young, the act prohibits the disturbance of any protected animals.³²⁹² This protection extends particularly to times when a species is breeding, resting during its migration or when it is located at a site which is significant to its life cycle for any other reason, such as mating or raising young.³²⁹³ Trees in which a bird has nested can also be protected.³²⁹⁴ The protection applies where a protected bird species has nested in a tree and that tree has been marked as such or where a large bird of prey (as defined in the Nature Conservation Decree, with the Arctic large birds of prey being golden eagle, sea eagle and osprey) has nested in the tree, the nest is visible and the bird regularly nests there.³²⁹⁵ This protection for the trees in which nests are found ensures that the nests themselves are properly protected. The final protection found in section 39 applies to the ‘capture of invertebrates’.³²⁹⁶ Although capture is allowed, the methods used must not be harmful to the conservation of the

³²⁸⁴ Nature Conservation Act (1096/1996) s 42.

³²⁸⁵ *ibid.*

³²⁸⁶ Nature Conservation Decree (160/1997) s 20, Appendix 3(a), (c).

³²⁸⁷ *ibid.*, Appendix 3(a), (b), (c).

³²⁸⁸ *ibid.*, Appendix 3(a); Chester (n 24) 476, 478, 456.

³²⁸⁹ Nature Conservation Act (1096/1996) s 39.

³²⁹⁰ *ibid.*

³²⁹¹ *ibid.*

³²⁹² *ibid.*

³²⁹³ *ibid.*

³²⁹⁴ *ibid.*

³²⁹⁵ *ibid.*; Nature Conservation Decree (160/1997) s 19.

³²⁹⁶ Nature Conservation Act (1096/1996) s 39.

environment.³²⁹⁷ There is, however, no habitat protection for species protected by section 39.³²⁹⁸

There are two further protections for protected animals, found in sections 40 and 41 of the act.³²⁹⁹ Protected animals which are found dead should be handed over to the authorities to enable them to ascertain the cause of death.³³⁰⁰ Where the animal has ‘scientific, educational or collection value’ it may then be given to the Finnish Central Museum of Natural History.³³⁰¹ Protected species which are found ‘helpless’, by which is meant that they are sick or injured, should be helped.³³⁰² The act requires the person finding the animal to make ‘every effort...to assist’, including arranging for veterinary care.³³⁰³

Protections for plant species are found listed in section 42 of the Nature Conservation Act 1996.³³⁰⁴ Plant species which are listed as protected in appendices 3(a) - 3(c) of the Nature Conservation Decree, are protected from being picked, collected, cut, uprooted or destroyed. The protection applies to the plants themselves and to their seeds.³³⁰⁵ It is also unlawful to plant or sow non-native plants in the Finnish wilderness where those plants do not have an ‘established range in the Finnish wild’.³³⁰⁶

While the rules set out in sections 39 and 42 appear to be absolute, a general derogation in section 48 allows for the use of land for the purposes of ‘farming, forestry and development’.³³⁰⁷ The section also allows buildings and equipment to be used for their ‘intended purpose’.³³⁰⁸ The general derogation asks that measures be taken to ‘avoid harming or disturbing protected plants and animals’ but only so far as this is possible without incurring ‘substantial additional expense’.³³⁰⁹ It is unusual to have a general

³²⁹⁷ *ibid.*

³²⁹⁸ *ibid*; Pekka Vihervuori, ‘Nature Conservation and Management’, *Encyclopaedia of Environmental Law - Finland* (Wolters Kluwer Law & Business 2013) 261.

³²⁹⁹ Nature Conservation Act (1096/1996) ss 40–41.

³³⁰⁰ *ibid* 40.

³³⁰¹ *ibid.*

³³⁰² Nature Conservation Decree (160/1997) s 41.

³³⁰³ *ibid.*

³³⁰⁴ Nature Conservation Act (1096/1996) s 42.

³³⁰⁵ *ibid.*

³³⁰⁶ *ibid* 43.

³³⁰⁷ *ibid* 39, 42, 48.

³³⁰⁸ *ibid.*

³³⁰⁹ *ibid.*

derogation of this type, particularly given how broad it is and that it covers much more than just agricultural pursuits, because it considerably inhibits the effectiveness of the rules themselves.³³¹⁰ The general derogation places farming, forestry and construction of buildings above species protection, thereby risking making the protection fairly futile.³³¹¹ As well as a general derogation, section 48 allows for the granting of specific derogations, where required, from the protections of sections 39 and 42.³³¹² The derogations may be granted by the Centre for Economic Development, Transport and the Environment unless it is required nationwide in which case it must be authorised by the Ministry of the Environment.³³¹³ A specific derogation may only be granted where it will not cause the conservation status of the relevant species to become unfavourable although, where necessary conditions may be applied to ensure that a derogation does not cause harm to the conservation status of the species.³³¹⁴ The only exception either to the general derogation or to the authority to grant a specific derogation is for those species which are protected under article 1 of the Birds Directive or in Annex IV(a) of the Habitat and Species Directive.³³¹⁵ This is because Finland is obliged to grant absolute protection to these species, without allowing for derogations whereas it is free to grant whatever derogations it likes to species which are only protected in and by Finland.

Alongside the direct protections for mammals, birds, plants and other species to which protection has been extended, the Nature Conservation Act allows for the listing of threatened species.³³¹⁶ A species is considered to be threatened when it occurs naturally in Finland but where its ‘survival in the wild is at risk in Finland’.³³¹⁷ The species themselves are listed in appendix 4 of the Nature Conservation Decree.³³¹⁸ The list is based on the Finnish Red List, currently the 2010 edition, which contains 2,124 threatened species of plant and animal, the vast majority of which are plants (including fungi) and invertebrates.³³¹⁹ There are also five mammals, the Siberian flying squirrel and the Arctic fox being the only protected Arctic mammals, and 55 birds, including Arctic species such

³³¹⁰ Vihervuori (n 3298) 261.

³³¹¹ *ibid.*

³³¹² Nature Conservation Act (1096/1996) ss 39, 42, 48.

³³¹³ *ibid* 48.

³³¹⁴ *ibid.*

³³¹⁵ *ibid* 48, 49; Habitats and Species Directive (92/43/EEC); Birds Directive (2009/147/EC).

³³¹⁶ Nature Conservation Act (1096/1996) s 46.

³³¹⁷ *ibid.*

³³¹⁸ Nature Conservation Decree (160/1997) s 21, Appendix 4.

³³¹⁹ *ibid*, Appendix 4.

as the peregrine falcon, dunlin, snowy owl and grey wagtail.³³²⁰ The list is lengthy because Finland prides itself on the ‘broad scale’ at which it evaluates the threat level to its species.³³²¹ However, inclusion in the list of threatened species brings with it no legal protection.³³²² The only effect of listing a species as a threatened species is to draw it to the attention of the environmental authorities when they are ensuring that the ‘favourable conservation status’ of species is maintained.³³²³ Beyond this, the list within appendix 4 of the Nature Conservation Decree does little to ensure that the species included on it are not put at further harm.

There are some species which are afforded additional legal protection. Where a species is at ‘imminent risk of extinction’, it can be ‘placed under a strict protection order’.³³²⁴ This is done by decree and the species which are protected in this way are marked with an asterisk in appendix 4 of the Nature Conservation Decree.³³²⁵ There are 680 species which are strictly protected, including Arctic species such as the arctic fox, golden eagle, common murre and black tailed godwit.³³²⁶ There are two effects of placing a species under a strict protection order. The first is that it gives the Ministry of the Environment the opportunity to prepare a plan for ‘reviving the population’ of the species.³³²⁷ This is not a requirement and the Ministry of the Environment only needs to prepare such a plan if it believes that it is necessary to do so.³³²⁸ The plan, where one is completed, will cover aspects such as the current distribution and population of the species, any expected future trends and recommendations for conserving the species or for promoting its recovery.³³²⁹ The second effect of a species being placed under a strict protection order is that the species’ habitat becomes protected.³³³⁰ The Nature Conservation Act states that ‘deterioration and destruction of a habitat important for the survival of a species under strict protection is prohibited’.³³³¹ The protected habitat may be on public or private land but does not become

³³²⁰ *ibid*, Appendix 4.

³³²¹ ‘Protection of Species’ (*Ministry of the Environment*) <http://www.ym.fi/en-US/Nature/Biodiversity/Protection_of_species> accessed 28 February 2019.

³³²² Vihervuori (n 3298) 261.

³³²³ *ibid*.

³³²⁴ Nature Conservation Act (1096/1996) s 47.

³³²⁵ *ibid*; Nature Conservation Decree (160/1997) s 22, Appendix 4.

³³²⁶ Nature Conservation Decree (160/1997) s 22, Appendix 4; ‘Threatened Species’ (n 443).

³³²⁷ Nature Conservation Act (1096/1996) s 47.

³³²⁸ *ibid*.

³³²⁹ ‘Threatened Species’ (n 443).

³³³⁰ *ibid*.

³³³¹ Nature Conservation Act (1096/1996) s 47.

protected until the boundaries of the habitat are decided by the Centre for Economic Development, Transport and the Environment and the decision has been notified to the landowner.³³³²

Breaches of the Nature Conservation Act are punished under Chapter 48 of the Criminal Code.³³³³ Nature Conservation offences are committed by those who ‘intentionally or through gross negligence’ damage or destroy a protected animal, plant or area of land.³³³⁴ The punishment for committing such an offence is a fine in accordance with the offender’s income or a term of imprisonment of no more than two years.³³³⁵ Fines in Finland are calculated by the court setting a certain number of days for which the fine is payable and the offender paying a proportion of their daily income for each of those days.³³³⁶ This ensures that fines impose a similar punishment on all offenders regardless of their earnings.³³³⁷ Where, however, the action has caused only minor harm to the environment then it will be deemed that no offence was committed.³³³⁸ Where the act committed was particularly serious, due to the damage caused or threatened to the species or area, the vulnerability of the species, as a result of long term damage caused, where an economic benefit accrued to the offender or where the offence was ‘particularly planned’, the offender may be found guilty of an aggravated nature conservation offence.³³³⁹ Aggravated nature conservation offences are punished by a prison sentence of between four months and four years.³³⁴⁰ For behaviour which breaches the Nature Conservation Act 1996 but falls short of being a nature conservation offence, punishment in the form of a fine and forfeiture of any items collected illegally or of their value, is available.³³⁴¹ Such behaviour, which includes wilfully or through gross negligence breaching a provision of the Nature Conservation Act 1996 or the Nature Conservation Decree 1997, possessing a plant or animal species unlawfully or destroying or damaging a site used by a species protected under Annex IV(a) of the Habitats and Species Directive, is known as a nature conservation

³³³² *ibid.*

³³³³ *ibid* 58; Criminal Code of Finland (Rikoslaki) (39/1889) ch 48.

³³³⁴ Criminal Code of Finland (39/1889), ch 48, s 5(1)(1).

³³³⁵ *ibid*, ch 48, s 5(1).

³³³⁶ Kantorowicz-Reznichenko (n 3065) 6–9.

³³³⁷ *ibid.*

³³³⁸ Criminal Code of Finland (39/1889), ch 5, s 48(4).

³³³⁹ *ibid*, ch 48, s 5a.

³³⁴⁰ *ibid*, ch 48, s 5a.

³³⁴¹ Nature Conservation Act (1096/1996) ss 58–59.

violation.³³⁴² In addition to the various punishments for nature conservation offences or violations, the Centre for Economic Development, Transport and the Environment is authorised to issue injunctions prohibiting the commission of an offence or can require that the damage caused by a breach of the Nature Conservation Act 1996 is ameliorated at the offender's expense.³³⁴³

F.4.4. Hunting Act and Hunting Decree

The Nature Conservation Act protects wild animals and plants within Finland but specifically excludes from its protection any animals which are listed in section 5 of the Hunting Act 1993 (Metsästyslaki 615/1993).³³⁴⁴ This means that the species listed by name in the Hunting Act 1993 are not granted the protection against killing, capture and disturbance that species protected by the Nature Conservation Act are.³³⁴⁵ Instead, their protection comes from the rules on hunting and game management found in the Hunting Act 1993, albeit that the level of protection is usually much lower than for other species, particularly other mammals.³³⁴⁶ The act also applies, where relevant, to the capturing and killing of the species protected under the Nature Conservation Act 1996.³³⁴⁷ The act would be relevant, for example, where a derogation under the Nature Conservation Act has allowed the killing or capture of an otherwise protected species; the restrictions of the Hunting Act 1993 regarding methods of killing or capture would apply just as they would for species covered directly by the act.³³⁴⁸

The Hunting Act 1993 covers two types of species, both listed in section 5 of the act.³³⁴⁹ The first are game animals, 34 mammals and 26 birds, which include Arctic species such as the mountain hare, European beaver, wolverine, lynx, bear and forest reindeer.³³⁵⁰ The Arctic birds include the greylag goose, bean goose, teal, tufted duck, ptarmigan and capercaillie.³³⁵¹ The second category of species is the unprotected animals which includes species such as voles, mice, rats, gulls, the magpie and, in the reindeer husbandry area in

³³⁴² *ibid* 58.

³³⁴³ *ibid* 55–57.

³³⁴⁴ *ibid* 37; Hunting Act (615/1993) s 5.

³³⁴⁵ Nature Conservation Act (1096/1996) ss 37, 39; Hunting Act (615/1993) s 5.

³³⁴⁶ Hunting Act (615/1993).

³³⁴⁷ *ibid* 1; Nature Conservation Act (1096/1996).

³³⁴⁸ Hunting Act (615/1993) s 1; Nature Conservation Act (1096/1996).

³³⁴⁹ Hunting Act (615/1993) s 5.

³³⁵⁰ *ibid* 5(1).

³³⁵¹ *ibid* 5(1)(2).

Lapland, the raven.³³⁵² These are mostly species considered to be pests, that are not protected by the Hunting Act 1993 or by the Nature Conservation Act 1996 and may therefore be killed, captured or disturbed for any reason by the owner or holder of the land on which the species is found.³³⁵³

Game species listed in section 5 can be hunted in Finland as long as the person hunting has the right to hunt and holds a hunting permit.³³⁵⁴ Without these, it is unlawful to disturb a game species.³³⁵⁵ Hunting is defined as the ‘capturing or killing of wild game animals’ and also includes the hunter taking possession of the animal as well as behaviour which is linked to hunting such as ‘luring, searching for, circling, stalking, chasing or tracking’ a game animal, using a dog for the purpose of hunting or carrying the equipment required for hunting in a hunting area.³³⁵⁶ The act therefore regulates all activity associated with the hunting of game species and protects species from being subject to these activities or from being disturbed in other ways without a hunting permit and the right to conduct a hunt on the land in question.³³⁵⁷ The Hunting Act sets out a number of general requirements regarding the way in which hunting should be carried out within Finland.³³⁵⁸ These principles require that hunting be sustainable, that it does not endanger the population of any particular species and that it does not risk harming other people or their property.³³⁵⁹ They also require that no unnecessary damage is caused to the environment during hunting activities and that no unnecessary suffering is caused to the game animals.³³⁶⁰ As part of ensuring that hunting is conducted sustainably, hunters and others carry out game management techniques to secure the long term future of game populations.³³⁶¹ Hunters in Finland are known to impose self-regulation to ensure that hunting remains sustainable, with individuals and hunting associations choosing not to hunt when doing so would be unsustainable. The act also limits the methods by which hunting can be conducted,

³³⁵² *ibid* 5(2).

³³⁵³ *ibid* 48; Nature Conservation Act (1096/1996).

³³⁵⁴ Hunting Act (615/1993) ss 5, 37.

³³⁵⁵ *ibid*.

³³⁵⁶ *ibid* 2.

³³⁵⁷ *ibid* 5, 37.

³³⁵⁸ *ibid* 20.

³³⁵⁹ *ibid* 20(1), (3).

³³⁶⁰ *ibid* 20(1).

³³⁶¹ *ibid* 20(2).

prohibiting, for example, the use of explosives, poison, artificial lights, live decoys, gas and bird nets.³³⁶²

In order to be able to hunt in Finland, a person must have access to land on which that person has the right to hunt.³³⁶³ Hunting rights are generally linked to land ownership but landowners can lease out their right to hunt to other people.³³⁶⁴ Many local hunting associations rent hunting rights in order to provide a sufficiently large hunting area for their members.³³⁶⁵ Landowners may also issue hunting permits where they intend to grant a right to hunt on their land for a shorter period of time.³³⁶⁶ For publicly owned land, a number of different arrangements apply. In Lapland, residents of the region are granted the right to hunt on state owned land within their own municipality.³³⁶⁷ This provision extends to certain types of nature reserves in Lapland where hunting is allowed as long as it would not be contrary to the purposes for which the nature reserve was created and it would not 'inconvenience' other users of the reserve.³³⁶⁸ For non-residents of a municipality located within Lapland, Metsähallitus, the National Parks authority, issue permits for hunting on state owned land, taking into account the number of residents who exercise their hunting right.³³⁶⁹

As well as having the right to hunt, anyone wishing to hunt must be in possession of a hunting card.³³⁷⁰ Hunting cards are issued as a receipt for the payment of the game management fee paid annually to the state.³³⁷¹ They act as proof that the hunter in possession of the card is entitled to hunt in Finland.³³⁷² In order to be eligible to pay the game management fee, a hunter must have passed the hunting exam set by one of the game management associations.³³⁷³ Hunters are required to carry their hunting cards when they

³³⁶² *ibid* 33.

³³⁶³ *ibid* 6.

³³⁶⁴ *ibid*.

³³⁶⁵ *Hunting in Finland* (European Federation for Hunting and Conservation 2008).

³³⁶⁶ Hunting Act (615/1993) s 17.

³³⁶⁷ *ibid* 8.

³³⁶⁸ *ibid* 8, 9; Nature Conservation Act (1096/1996) s 17a.

³³⁶⁹ Hunting Act (615/1993) s 46; 'Metsästys Pohjois-Suomessa (Hunting in Northern Finland)'

<<https://www.eraluvat.fi/metsastys/hyva-tietaa/metsastys-pohjois-suomessa.html>> accessed 13 March 2019.

³³⁷⁰ Hunting Act (615/1993) s 22.

³³⁷¹ *ibid*; Game Management Fee and Hunting Licence Fee Act (616/1993) s 2.

³³⁷² Hunting Act (615/1993) s 22; Game Management Fee and Hunting Licence Fee Act (616/1993) s 2.

³³⁷³ Wildlife and Game Administration Act (158/2011) ch 2; Game Management Fee and Hunting Licence Fee Act (616/1993) s 2; *Hunting in Finland* (n 3245) 2.

are participating in hunting activities.³³⁷⁴ For the hunting of some species, an additional shooting test must also be passed and the certificate carried alongside the hunting card.³³⁷⁵ A shooting test is necessary where a hunter intends to use a rifled firearm to hunt moose, deer, bear or wild boar.³³⁷⁶ A shooting test is also necessary where a hunter wishes to hunt for white-tailed deer, roe deer or wild boar with a hunting bow.³³⁷⁷

For a small number of species, a hunting card must be supplemented with a hunting licence.³³⁷⁸ Hunting licences are required for the hunting of deer and moose, as well as for hunting European beaver, partridge (in certain parts of the country) and Baltic ringed seal.³³⁷⁹ The Finnish Wildlife Agency issues licences to hunt deer and moose and may establish a quota by limiting the number of licences issued in any year.³³⁸⁰ The aim of the hunting quota is to ensure that there is a balance struck between ensuring the survival of a healthy population of each species of deer and moose and the need to control those populations in order to limit the damage wreaked by such animals on farming and forests and to reduce the threat caused to road vehicles.³³⁸¹ Each licence permits the holder to hunt one adult deer or moose or two calves although further limitations may be placed on the licence by the Finnish Wildlife Agency.³³⁸² In Lapland, the allocation of licences where demand exceeds supply must be done in a way which gives ‘equitable distribution of hunting opportunities’.³³⁸³ For other species, while licences are issued by the Finnish Wildlife Agency, the decision on quotas is made Ministry of Agriculture and Forestry and is based on annual population statistics produced by the National Resources Institute.³³⁸⁴ In a similar way to the quota for deer and moose, the total number of licences which will be issued each year will reflect a balance between species protection and population management to reduce the damage caused by a species to a ‘reasonable level’.³³⁸⁵

³³⁷⁴ Hunting Act (615/1993) s 22.

³³⁷⁵ *ibid* 21, 22.

³³⁷⁶ *ibid* 21.

³³⁷⁷ Hunting Decree (Metsästysasetus) (666/1993) s 20; *Hunting in Finland* (n 3245) 2.

³³⁷⁸ Hunting Act (615/1993) s 10.

³³⁷⁹ *ibid* 10, 26; Hunting Decree (666/1993) s 1.

³³⁸⁰ Hunting Act (615/1993) s 26; Hunting Decree (666/1993) ss 6–8; *Hunting in Finland* (n 3245) 7–8.

³³⁸¹ Hunting Act (615/1993) s 26(2).

³³⁸² Hunting Decree (666/1993) s 7.

³³⁸³ Hunting Act (615/1993) s 26(2).

³³⁸⁴ *Hunting in Finland* (n 3245); ‘Hunting’ (*Luonnonvarakeskus*) <<https://www.luke.fi/en/natural-resources/game-and-hunting/hunting/>> accessed 13 March 2019.

³³⁸⁵ Hunting Decree (666/1993) s 2.

As long as a hunter has a hunting right, hunting card and, where necessary, a hunting licence, then the hunting of the game animals is permitted. However, hunting can be, and is, restricted for particular species for a number of different reasons.³³⁸⁶ Certain species, namely, bear, otter, wolverine, lynx and, outside the Arctic, harbour seal and wolf, are protected at all times.³³⁸⁷ For other species hunting can be restricted at certain times of year for the purposes of preserving the population of the species and in order to prevent hunting during breeding or other key times in a species' life cycle.³³⁸⁸ Closed seasons, when hunting is prohibited, are listed in the Hunting Decree and differ for different species.³³⁸⁹ Examples of closed seasons for Arctic species include the closed season for capercaillie which runs from 1 November to 9 September and for beaver which is in place from 1 May to 19 August.³³⁹⁰ Ptarmigan has a closed season of 1 April to 9 September in the municipalities of Enontekiö, Inari and Utsjoki located in the far north of Lapland but the closed season for the rest of the country persists for the entire year.³³⁹¹ Similarly, no hunting of species of wild boar, deer, moose or mouflon is allowed when the target is a female accompanied by young of up to a year old.³³⁹² As well as closed seasons, where the population of a species is reduced either nationwide or within a particular region then hunting may be restricted to allow the recovery of the species.³³⁹³ The restriction is imposed by the Ministry of Agriculture and Forestry, in discussion with the local game management association of the areas affected, and may either be a complete ban or one which limits hunting geographically, at certain times, for one particular sex or using certain hunting methods.³³⁹⁴ Alternatively, the restriction could provide for a quota for that species.³³⁹⁵ Finally, for the purposes of public safety or the spread of animal diseases, the Regional State Administration Agency may restrict or prohibit hunting for a defined period of time.³³⁹⁶

³³⁸⁶ Hunting Act (615/1993) ss 23, 27, 38.

³³⁸⁷ *ibid* 37.

³³⁸⁸ *ibid*.

³³⁸⁹ Hunting Decree (666/1993) ss 24–26.

³³⁹⁰ *ibid* 24(1)(3), (18).

³³⁹¹ *ibid* 24(1)(16).

³³⁹² *ibid* 25(2).

³³⁹³ Hunting Act (615/1993) s 38.

³³⁹⁴ *ibid*.

³³⁹⁵ *ibid*.

³³⁹⁶ *ibid* 23.

Where there are no provisions in place to allow a hunting licence to be issued and the rules prohibit or restrict the hunting of a species, it is possible to apply for a derogation from that prohibition.³³⁹⁷ This occurs, in particular, with the large carnivores, such as bear and lynx, which are protected at all times but may also occur when a person has need to hunt a species during a closed season or when hunting has otherwise been restricted.³³⁹⁸ Derogations are decided by the Finnish Wildlife Agency following receipt of an application by the hunter.³³⁹⁹ The rules on derogations cover three different classes of animals, namely certain game mammals, bird species and other game mammals.³⁴⁰⁰ The highest level of protection is for the species of game mammal listed in section 41a, the Arctic species of which are the wolverine, bear, otter, lynx, European beaver and mountain hare.³⁴⁰¹ Derogations are allowed from hunting prohibitions for these species where ‘there is no other satisfactory solution’ and the derogation would not cause a risk to the maintaining the species at a ‘favourable conservation status in its natural range’.³⁴⁰² The reason for the derogation request must be either that the species is threatening other wild flora or fauna, that the species is threatening to cause ‘particularly significant damage’ to crops, farmland, forests or similar, that hunting the species would be in the interests of public health, public safety or other overriding interest such as a social, economic or positive environmental reason, or that it is necessary for ‘research and education’, repopulation of the species or the prevention of disease.³⁴⁰³ The protections are similar for all game birds and unprotected birds listed in section 5 of the Hunting Act, with the requirement that there be ‘no other satisfactory solution’ and that the decision would not be ‘detrimental to the maintenance of the species at a favourable conservation status’.³⁴⁰⁴ The reasons for granting a derogation are generally similar except that derogations are not permitted for social, economic or positive environmental reasons and the threat to crops, farming, forestry and similar should be ‘serious’ rather than ‘particularly significant’.³⁴⁰⁵ There is also an additional purpose allowed, that the derogation would be ‘in the interest of air safety’.³⁴⁰⁶ For all other game

³³⁹⁷ *ibid* 37, 41–41e.

³³⁹⁸ *ibid* 37, 38, 41–41e, 50(2); Hunting Decree (666/1993) ss 24–25a.

³³⁹⁹ ‘Poikkeuslupalomakkeet (Exemption Forms)’ (*Suomen riistakeskus*, 6 March 2013) <<https://riista.fi/metsastys/lomakkeet/poikkeuslupalomakkeet/>> accessed 13 March 2019.

³⁴⁰⁰ Hunting Act (615/1993) ss 41a–41c.

³⁴⁰¹ *ibid* 41a; Chester (n 24) 39, 56, 71, 85, 87, 91.

³⁴⁰² Hunting Act (615/1993) s 41a.

³⁴⁰³ *ibid*.

³⁴⁰⁴ *ibid* 5, 41b.

³⁴⁰⁵ *ibid* 41b.

³⁴⁰⁶ *ibid*.

mammals, the protection is weaker.³⁴⁰⁷ A derogation may be granted wherever there is ‘no other satisfactory solution’ but there is no requirement that the derogation not affect the conservation status of the species.³⁴⁰⁸ Despite this, the reasons for granting a derogation are similar to the ones under section 41a, except that the threat to crops, farming, forestry and the like only needs to be a threat of ‘significant damage’, not ‘particularly significant damage’.³⁴⁰⁹ In addition to the derogations allowing the capture or killing of a species, derogations may be granted allowing the destruction of a nest or lair of a game species or an unprotected bird, or of the eggs of bird on the same terms as the derogation for the species themselves.³⁴¹⁰

Breaches of the Hunting Act 1993 are punished by way of the Finnish Criminal Code 1889 and the Hunting Act itself.³⁴¹¹ The offences are found in section 48(a) of the Code and in sections 72 to 82 of the Hunting Act.³⁴¹² There are three levels of offence, with the lowest being a hunting violation, then a hunting offence and finally, the most serious being an aggravated hunting offence.³⁴¹³ It is also possible to be convicted of unauthorised hunting and concealing an illegally taken animal.³⁴¹⁴ A person can be found guilty of a hunting violation for deliberately or negligently committing a breach of a number of the provisions of the Hunting Act such as hunting during the closed season for a species, hunting without a hunting licence or permit or disturbing the mating of a species during the closed season.³⁴¹⁵ A hunting violation is punished with a fine linked to the offender’s income (expressed in number of days’ salary), unless the offence is sufficiently serious that it will be punished under the Criminal Code as a hunting offence.³⁴¹⁶ A hunting offence is committed where a person, *inter alia*, uses a prohibited method of trapping, breaches provision of the Hunting Act aimed at protecting game including a hunting prohibition or restriction, a species quota or a licence requirement or where the hunting has ‘endangered or harmed’ another person or their property.³⁴¹⁷ A hunting offence is punished with a fine

³⁴⁰⁷ *ibid* 41c.

³⁴⁰⁸ *ibid*.

³⁴⁰⁹ *ibid*.

³⁴¹⁰ *ibid* 41d.

³⁴¹¹ *ibid* 72–82; Criminal Code of Finland (39/1889) ch 48(a).

³⁴¹² Hunting Act (615/1993) ss 72–82; Criminal Code of Finland (39/1889) ch 48(a).

³⁴¹³ Hunting Act (615/1993) ss 72–82; Criminal Code of Finland (39/1889) ch 48(a).

³⁴¹⁴ Hunting Act (615/1993) s 76; Criminal Code of Finland (39/1889) ch 28, s 10, ch 48(a) s 4, 4a.

³⁴¹⁵ Hunting Act (615/1993) ss 74, 75.

³⁴¹⁶ *ibid*.

³⁴¹⁷ Criminal Code of Finland (39/1889) ch 48(a), s 1.

or a term of imprisonment of up to two years.³⁴¹⁸ The most serious crimes against game animals can result in a conviction for an aggravated hunting offence.³⁴¹⁹ A hunting offence will be considered to be aggravated when it is committed in a ‘particularly brutal or cruel manner’, where the scale of the offence, either in terms of the number of animals or the economic benefit derived from the behaviour or where the offence is premeditated.³⁴²⁰ The killing or injuring of a wolverine, lynx, bear, deer, otter or wolf will elevate a hunting offence to an aggravated one.³⁴²¹ Aggravated hunting offences are punished with a term of imprisonment of between four months and four years.³⁴²²

F.4.5. Act on the Protection of Whales and Arctic Seals 1982

Finland has no Arctic coastline but this does not prevent it from having rules on the treatment of Arctic marine species such as whales and seals. The Act on the Protection of Whales and Arctic Seals 1982 prohibits any Finnish vessel being used for whaling for any type in any part of the world.³⁴²³ Within Finnish territorial waters and the exclusive economic zone whales are protected and injured whales should be assisted.³⁴²⁴ However, as all of Finland’s waters are located south of the Arctic circle, these requirements do not apply within Arctic waters. For seals, while there are no prohibitions on sealing by Finnish ships, the importation of the hides of Greenland seals is specifically banned.³⁴²⁵ The act also prohibits the importation of whale meat and almost all other products produced from whales.³⁴²⁶ The punishment for offences under the act is the same as for other nature conservation offences, namely a fine (expressed in number of days’ salary) or a term of imprisonment of up to two years.³⁴²⁷

³⁴¹⁸ *ibid* ch 48(a), s 1.

³⁴¹⁹ *ibid* ch 48(a), 1(a).

³⁴²⁰ *ibid* ch 48(a), 1(a).

³⁴²¹ *ibid* ch 48(a), 1(a).

³⁴²² *ibid* ch 48(a), 1(a).

³⁴²³ Act on the Protection of Whales and Arctic Seals (Laki Valaiden ja Arktisten Hylkeiden Suojelusta) (1112/1982) s 1.

³⁴²⁴ *ibid* 3.

³⁴²⁵ *ibid* 2a.

³⁴²⁶ *ibid* 2.

³⁴²⁷ Criminal Code of Finland (39/1889), ch 48, s 5(2).

F.5. Habitat Protection

F.5.1. Nature Conservation Act

As well as making provision for the protection of species within Finland, the Nature Conservation Act 1996 provides for the protection of habitats which will enable species to survive within their natural range.³⁴²⁸ There are three main types of habitat protection in Finland, nature reserves, protected habitat types and conserved landscapes.³⁴²⁹ Each of these types of protection has their own rules which protect the land for particular purposes.³⁴³⁰ Together the nature conservation programmes seek to protect the diverse of nature within Finland and to provide habitats for a diverse range of species, including endangered species. In total, around 10% of Finland's surface area is protected, with the majority of the protected land being located in the north of Finland.³⁴³¹

F.5.1.1. Nature Reserves

Nature reserves are designated in order to protect the range of biodiversity of both species and ecosystems and to ensure that representatives of the most important types of nature found in Finland are protected for future generations.³⁴³² There are three types of nature reserve which can be established, national parks, strict nature reserves and other nature reserves.³⁴³³ All three types of nature reserves can only be established for one of the purposes listed in section 10 of the Nature Conservation Act.³⁴³⁴ These purposes are, for example, that the site is home to one or more endangered species or ecosystems, that species protected under the Habitats and Species Directive use the site for breeding or resting, that protection is necessary to ensure that a favourable conservation status is reached or that the site is representative of a particular types of nature.³⁴³⁵ Most state owned protected areas are managed by Metsähallitus, the Finnish Forest Park Service.³⁴³⁶

³⁴²⁸ Nature Conservation Act (1096/1996) ch 3.

³⁴²⁹ *ibid.*

³⁴³⁰ *ibid.*

³⁴³¹ 'Protected Areas Managed by Metsähallitus' (*Metsa.fi*)

<<http://www.metsa.fi/web/en/numberandsizeofprotectedareas>> accessed 15 March 2019.

³⁴³² Nature Conservation Act (1096/1996) ch 3.

³⁴³³ *ibid.* 10.

³⁴³⁴ *ibid.*

³⁴³⁵ *ibid.*

³⁴³⁶ Nature Conservation Decree (160/1997) s 7; 'Protected Areas Managed by Metsähallitus' (n 3431); Borgström and Koivurova (n 267) 85.

F.5.1.1.1. National Parks

National Parks must be at least 1,000 hectares large and may only be established on state owned land.³⁴³⁷ They are created by law and are protected as examples of ‘natural attraction’ for the public or which, as a result of their creation, can lead to an increase in public interest in nature.³⁴³⁸ There are a total of 40 National Parks in Finland, of which seven are located in Lapland.³⁴³⁹ There are strict protection in place for National Parks, including a prohibition on capturing, killing or disturbing ‘wild vertebrates’ without a derogation, but unlike with strict nature reserves, National Parks are open to the public.³⁴⁴⁰

F.5.1.1.2. Strict Nature Reserves

Strict Nature Reserves are areas which require protecting in order to allow for ‘undisturbed natural development’, for scientific purposes or for education.³⁴⁴¹ Strict nature reserves are established by law if they have an area of at least 1,000 hectares, or by decree for smaller strict nature reserves.³⁴⁴² All strict nature reserves are created on state owned land.³⁴⁴³ There are 19 strict nature reserves in Finland with five of those reserves located north of the Arctic Circle.³⁴⁴⁴ Strict nature reserves are usually completely closed to the public with no access allowed without a permit although the public is allowed to hike on marked trails in the two most northerly strict nature reserves, Kevo and Malla.³⁴⁴⁵

F.5.1.1.3. Other Nature Reserves

Other types of nature reserve may be established on either state owned or private land for the purposes set out in section 10 of the Nature Conservation Act.³⁴⁴⁶ On state owned land, these nature reserves are created by decree; the decree will also set out the objectives of the creation of the reserve.³⁴⁴⁷ The protections of other nature reserves on state owned land are similar as those provided for National Parks and strict nature reserves but hunting may be

³⁴³⁷ Nature Conservation Act (1096/1996) s 11.

³⁴³⁸ *ibid.*

³⁴³⁹ ‘Protected Areas Managed by Metsähallitus’ (n 3431).

³⁴⁴⁰ Nature Conservation Act (1096/1996) s 13(5); Vihervuori (n 3298) 241.

³⁴⁴¹ Nature Conservation Act (1096/1996) s 12.

³⁴⁴² *ibid.*

³⁴⁴³ *ibid.*

³⁴⁴⁴ ‘Strict Nature Reserves’ (*Metsä.fi*) <<http://www.metsa.fi/web/en/strict-nature-reserves>> accessed 15 March 2019.

³⁴⁴⁵ Nature Conservation Act (1096/1996) s 18; ‘Strict Nature Reserves’ (n 3444).

³⁴⁴⁶ Nature Conservation Act (1096/1996) ss 10, 17, 24.

³⁴⁴⁷ *ibid* 17.

permitted for nature reserves located in Lapland.³⁴⁴⁸ On private land, nature reserves are designated by the Centre for Economic Development, Transport and the Environment, usually at the request, or with the consent of the landowner.³⁴⁴⁹ The decision which designates the nature reserve will also create the necessary rules for the protection of the reserve.³⁴⁵⁰ There are approximately 253 state owned nature reserves and 183 privately owned nature reserves in Finland.³⁴⁵¹

F.5.1.2. Protected Habitat Types

Under section 29, the Nature Conservation Act 1996 specifies nine types of habitats which can be protected in Finland.³⁴⁵² These habitat types range from sand dunes to juniper meadows and provide examples of the ecological diversity found within Finland; their protection is important because of the species which rely on the habitats in order to thrive.³⁴⁵³ While any instances of the habitat types can be protected, the protection does not become enforceable until the Centre for Economic Development, Transport and the Environment has established the boundaries of the habitat to be enforceable and informed the land owner of the intended protection.³⁴⁵⁴ Once protected, it become unlawful to alter the habitat in any way which could ‘jeopardise the preservation of the characteristic features’ of the habitat.³⁴⁵⁵

F.5.1.3. Landscape Conservation

Landscape conservation areas can be established for the purposes of protecting, preserving or managing a landscape, either natural or cultural, which is considered to be of ‘outstanding beauty, historical interest or other special value’.³⁴⁵⁶ Landscape conservation areas are designated on a national level by the Ministry of the Environment, or on a local level by a Centre for Economic Development, Transport and the Environment.³⁴⁵⁷

³⁴⁴⁸ *ibid* 17a.

³⁴⁴⁹ *ibid* 24.

³⁴⁵⁰ *ibid*.

³⁴⁵¹ ‘Protected Areas Managed by Metsähallitus’ (n 3431).

³⁴⁵² Nature Conservation Act (1096/1996) s 29.

³⁴⁵³ *ibid*; Nature Conservation Decree (160/1997) s 10; ‘Protection of Natural Habitats’ (*The Ministry of the Environment*, 2013) <http://www.ym.fi/en-US/Nature/Biodiversity/Protection_of_habitats> accessed 15 March 2019.

³⁴⁵⁴ Nature Conservation Act (1096/1996) s 30.

³⁴⁵⁵ *ibid* 29.

³⁴⁵⁶ *ibid* 32.

³⁴⁵⁷ *ibid* 33.

F.5.1.4. Wilderness Areas

Finland's twelve wilderness areas were established in 1991 under the Wilderness Act (62/1991).³⁴⁵⁸ All twelve areas are located in the Sámi reindeer herding area in the far north of Lapland and cover an area of around 15,000km².³⁴⁵⁹ The wilderness areas were created to protect the 'rugged wild nature' found in the remote parts of Arctic Finland and also to protect Sámi culture and Sámi livelihoods.³⁴⁶⁰ The act generally prohibits the building of roads or mining activities in the wilderness areas but Sámi people are allowed to carry out their traditional activities such as herding reindeer, hunting (with a permit), berry picking and collecting wood.³⁴⁶¹ The Wilderness Act also encourages the sustainable use of natural resources within the wilderness areas.³⁴⁶²

F.6. Case Studies

F.6.1. *Bear Hunting Offence*

Case No 14/139922

Rovaniemi Court of Appeal

The case centred around the death of a bear in Lapland.³⁴⁶³ Two hunters, A & B, had used carrion to attract a bear in order to make it easier to hunt it and the District Court ruled that they were both responsible for the offence.³⁴⁶⁴ The District Court also felt that the offence was sufficiently serious to be classed as an aggravated hunting offence because of the use of attractive food, that the subject of the hunt was a bear and the superiority of modern video technology used by the hunters in the commission of the offence.³⁴⁶⁵ Both hunters were sentenced to six months conditional imprisonment (suspended sentence) and a hunting ban was imposed.³⁴⁶⁶ The first hunter was also ordered to forfeit his camera and

³⁴⁵⁸ Wilderness Act (Erämaalaki) (63/1991).

³⁴⁵⁹ *ibid*; 'Wilderness Areas in Northern Finland' (*Metsä.fi*, 2018)

<<http://www.metsa.fi/web/en/wilderness-areas>> accessed 28 July 2019.

³⁴⁶⁰ Wilderness Act (Erämaalaki) (63/1991) s 1; 'Wilderness Areas in Northern Finland' (n 3459).

³⁴⁶¹ Wilderness Act (Erämaalaki) (63/1991) ss 1, 5, 6; 'Wilderness Areas in Northern Finland' (n 3459).

³⁴⁶² Wilderness Act (Erämaalaki) (63/1991) s 1; 'Wilderness Areas in Northern Finland' (n 3459).

³⁴⁶³ *Bear Hunting Offence* (n 248) 1.

³⁴⁶⁴ *ibid*.

³⁴⁶⁵ *ibid*.

³⁴⁶⁶ *ibid*.

battery, rifle, binoculars and muffler, and the bear skin and bottled blood.³⁴⁶⁷ He was also fined EUR 1,000 for the economic benefit he had gained.³⁴⁶⁸

Both A and B appealed the decision, arguing that they should only be guilty of a hunting violation or, in the alternative, that if they were guilty, they should only be guilty of a hunting offence rather than an aggravated hunting offence and the sentences should be relaxed.³⁴⁶⁹ The prosecutor responded that the District Court had reached the correct conclusion and had imposed appropriate sentences as a result.³⁴⁷⁰

The Court of Appeal held that there was a sufficient causal link between the carrion left for the bear and the hunting of the bear itself as while the bear was not killed while eating the bait, it was lured to the spot and then hunted nearby.³⁴⁷¹ The use of the food had made the bear easier to catch.³⁴⁷² The question for the court was whether this behaviour constituted a hunting violation under section 74(2) of the Hunting Act, a hunting offence under chapter 48(a), section 1 of the Finnish Criminal Code or an aggravated hunting offence under chapter 48(a), section 1a.³⁴⁷³

The court held that in order to be guilty of a hunting offence under the Criminal Code, the defendant must have, inter alia, hunted using a method prohibited by section 33 of the Hunting Act.³⁴⁷⁴ This section does not prohibit the use of food for baiting bears and therefore A and B could not be found guilty of a hunting offence.³⁴⁷⁵ However, under section 74(2) of the Hunting Act, a person who deliberately or negligently hunts in a manner which is prohibited by a decree issued under section 34 of the act will be guilty of a hunting violation.³⁴⁷⁶ The use of food to bait a bear is banned by section 13 of the Hunting Decree which was issued under the authority of section 34 of the Hunting Act.³⁴⁷⁷ The two hunters were therefore cleared of an aggravated hunting offence but were found guilty of a

³⁴⁶⁷ *ibid.*

³⁴⁶⁸ *ibid.*

³⁴⁶⁹ *ibid* 1–2.

³⁴⁷⁰ *ibid* 2.

³⁴⁷¹ *ibid.*

³⁴⁷² *ibid.*

³⁴⁷³ Hunting Act (615/1993) s 74(2); Criminal Code of Finland (39/1889) ch 48(a), ss 1, 1a.

³⁴⁷⁴ *Bear Hunting Offence* (n 248) 2–3.

³⁴⁷⁵ *ibid.*

³⁴⁷⁶ *ibid* 3; Hunting Act (615/1993) ss 34, 74(2).

³⁴⁷⁷ *Bear Hunting Offence* (n 248) 3; Hunting Decree (666/1993) s 13.

hunting violation.³⁴⁷⁸ Their sentences were reduced to a fine and the hunting ban was lifted but the forfeitures of equipment, the bear itself and the fine for financial gain were all left in place.³⁴⁷⁹

F.6.2. *Appeal Against Derogations on the Hunting Provisions Relating to Wolves*
Case No 287/4/2012, Case No 2014/1723
Board of Appeals for Rural Industries;
Supreme Administrative Court of Finland

There are about 200 wolves found in Finland, of which about one third live in the reindeer herding area much of which lies north of the Arctic Circle.³⁴⁸⁰ Wolves are protected species within Finland under section 37(3) of the Hunting Act 1993.³⁴⁸¹ The protection can be controversial, however, because wolves are known to kill livestock and so many people in Finland want the number of wolves to be managed. In 2012, the Ministry of Agriculture and Forestry issued a derogation to the rule protecting rules, allowing for the taking of up to 15 wolves in that year.³⁴⁸²

An application was made to the Finnish Game Centre for permission to kill one wolf in or around Kolari, in the reindeer herding area of Finnish Lapland.³⁴⁸³ The wolf had killed three reindeer in the space of 12 days in late 2012 and was expected that the wolf would continue to kill reindeer as wolves tend to kill repeatedly once they begin, with the intensity increasing during the winter.³⁴⁸⁴ It was argued that killing the wolf was the only satisfactory solution because once wolves have learned to kill, they will either return to the location even if removed, or will kill reindeer found in the place to which they are moved.³⁴⁸⁵ The Finnish Game Centre granted permission on the basis that the wolf was causing significant damage to the reindeer herd, there were no other satisfactory solutions,

³⁴⁷⁸ *Bear Hunting Offence* (n 248) 3.

³⁴⁷⁹ *ibid.*

³⁴⁸⁰ *Appeal Against Derogations on the Hunting Provisions Relating to Wolves* (n 342) 2.

³⁴⁸¹ *ibid* 3; Hunting Act (615/1993) s 37(3).

³⁴⁸² *Appeal Against Derogations on the Hunting Provisions Relating to Wolves* (n 342) 1.

³⁴⁸³ *ibid* 1–2.

³⁴⁸⁴ *ibid* 2.

³⁴⁸⁵ *ibid.*

the taking of the wolf would be limited to a restricted area and the action would not ‘interfere with the maintenance of a favourable conservation level’ of the wolf.³⁴⁸⁶

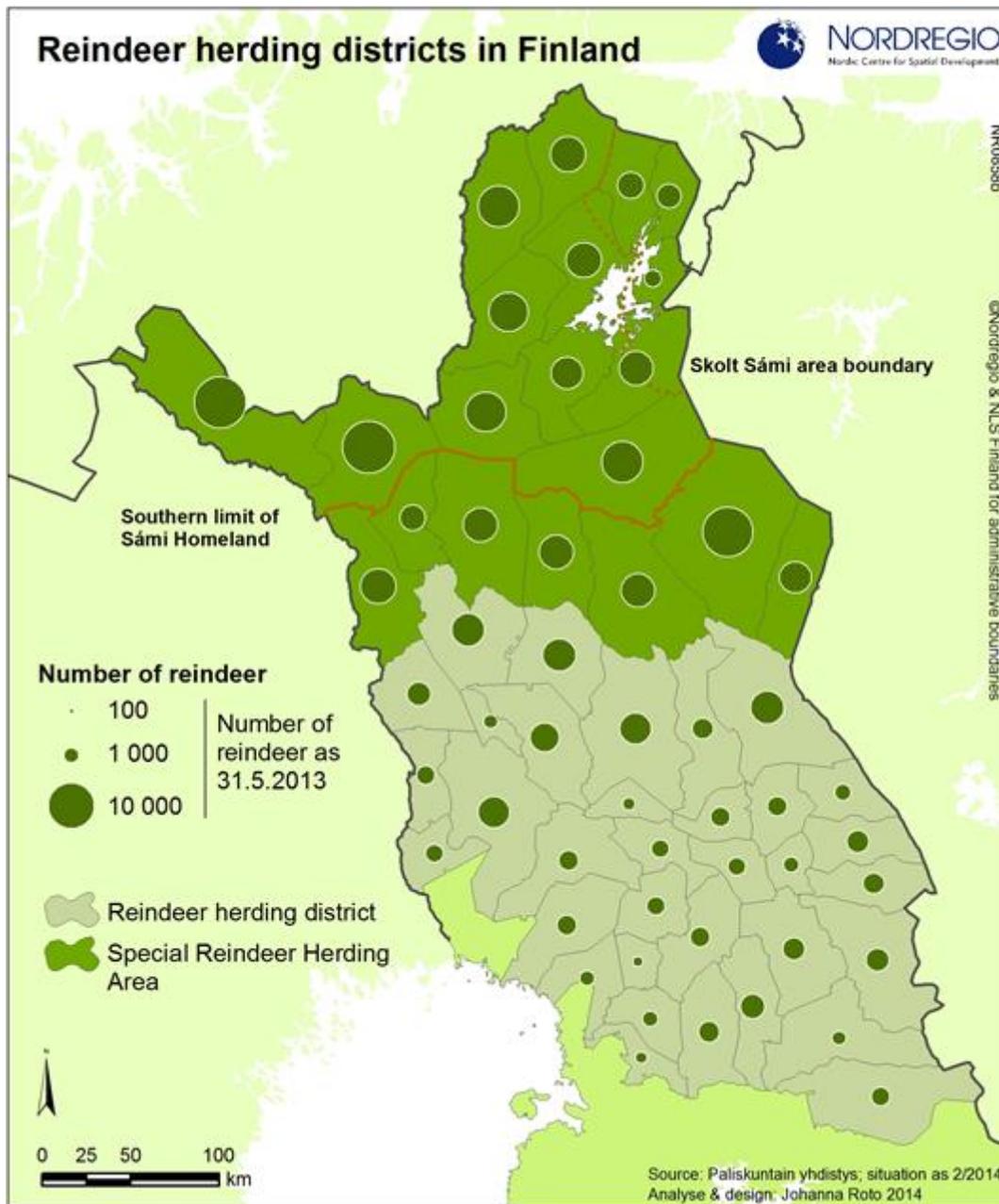


Figure 7: Map Showing the Reindeer Herding Districts in Finland
Source: Nordregio and Paliskuntain Yhdistys

The Finnish Association for Nature Conservation (Lapland District) objected to the decision of the Finnish Game Centre and appealed the decision to the Board of Appeals for Rural Industries, the relevant appeal body.³⁴⁸⁷ The association argued that the decision of

³⁴⁸⁶ *ibid* 3.

³⁴⁸⁷ *ibid*.

the Finnish Game Centre was contrary to section 20 of the Hunting Act and to the provisions of the Habitats and Species Directive.³⁴⁸⁸ They also argued that there were other satisfactory solutions to deal with the problem wolf, that the damage caused by the wolf was not sufficiently serious to warrant a decision to kill it and that the action would be detrimental to the maintenance of a favourable conservation status.³⁴⁸⁹ Finally, the association contended that, as the wolf is a species listed in annex II to the Habitats and Species Directive, section 65(1) of the Nature Conservation Act required an impact assessment to consider the impact on a potential Natura 2000 area and that this assessment had not taken place.³⁴⁹⁰

The Board of Appeals for Rural Industries considered each of the arguments in turn. In relation to the argument that the decision had breached the Hunting Act, the Board found that section 20 of the Hunting Act 1993 requires that hunting take place without endangering populations and without causing unnecessary environmental harm and that section 37(3) of the act specifically protects wolves. Despite this, the Finnish Game Centre may grant derogations from the protections for certain purposes, under section 41(1), as long as there are no other satisfactory solutions and that the decision would ‘not adversely affect the maintenance of a favourable conservation status of the species’ within its natural range.³⁴⁹¹ The derogation was allowed on the basis that the wolf posed a threat to reindeer husbandry which is a permitted reason for approving a derogation and, although the association had argued that there were other satisfactory options, they had not explained what these might be.³⁴⁹² In dealing with the argument about the Habitats and Species Directive, the court pointed out that while the wolf is usually a species listed under Annex IV requiring strict protection, the wolf in the Finnish reindeer herding area (the relevant area in this case) is listed separately under Annex V(a), which allows derogations to be made from protection measures.³⁴⁹³ This same point was made in relation to the argument that a Natura 2000 assessment should have been undertaken.³⁴⁹⁴ This would be true if the wolf was to be listed under Annex II but an exception is provided for the Finnish wolf and

³⁴⁸⁸ *ibid* 4–5.

³⁴⁸⁹ *ibid* 5.

³⁴⁹⁰ *ibid*.

³⁴⁹¹ *ibid* 3.

³⁴⁹² *ibid* 5.

³⁴⁹³ *ibid* 4–5.

³⁴⁹⁴ *ibid* 5.

so no Natura 2000 assessment is required.³⁴⁹⁵ The Board of Appeals rejected the arguments of the appellants and upheld the decision of the Finnish Game Centre.³⁴⁹⁶

The case was appealed to the Supreme Administrative Court of Finland by the Finnish Association for Nature Conservation (Lapland District).³⁴⁹⁷ The appellants requested that a reference be made to the European Court of Justice for a preliminary ruling but the Supreme Administrative Court found that there was no obligation to make such a reference if the court was clear about how European Union law should be applied.³⁴⁹⁸ The court saw no reason to make a reference for a preliminary ruling and refused the request.³⁴⁹⁹ On the substantive matters, the Supreme Administrative Court reached the same conclusions as the Board of Appeals for Rural Industries.³⁵⁰⁰ The court found that while the wolf was a species listed in Annex IV(a) to the Habitats and Species Directive and therefore entitled to strict protection, the wolf population in the reindeer herding districts of Finland is not included in this list but instead is listed under Annex V(a).³⁵⁰¹ This means that although the wolf must be protected, derogations are allowed, including a licencing or quota system, where they would not harm the conservation status of the species.³⁵⁰² Having monitored the recovery of the wolf population which was slower than would be expected, a decision was made to grant full protection to the wolf under section 37 of the Hunting Act in 2011.³⁵⁰³ This decision meant that hunting of wolves would no longer be allowed in Finland unless a specific derogation was issued.³⁵⁰⁴ The court was clear, however, that the preliminary works on the amendment to the Hunting Act were not designed to change the management of wolves in the reindeer herding area.³⁵⁰⁵ Evidence showed that there were about 180-200 wolves in Finland, of which about 20-40 were located in the reindeer herding area.³⁵⁰⁶ The damage done by this small number of wolves, estimated to be valued at €1.4

³⁴⁹⁵ *ibid.*

³⁴⁹⁶ *ibid.*

³⁴⁹⁷ *ibid.*

³⁴⁹⁸ *ibid* 9.

³⁴⁹⁹ *ibid.*

³⁵⁰⁰ *ibid* 13–14.

³⁵⁰¹ *ibid* 13.

³⁵⁰² *ibid.*

³⁵⁰³ Hunting Act (615/1993) s 37; *Appeal Against Derogations on the Hunting Provisions Relating to Wolves* (n 342) 13.

³⁵⁰⁴ *Appeal Against Derogations on the Hunting Provisions Relating to Wolves* (n 342) 13.

³⁵⁰⁵ *ibid.*

³⁵⁰⁶ *ibid.*

million in 2012, far outweighed the damage done by the other wolves in the country.³⁵⁰⁷ Since the application had first been made, three more reindeer (in addition to the original three) had been killed by the wolf in question.³⁵⁰⁸ Referring to the European Court of Justice's decision in *Commission v Finland*, the court noted that the taking of a single wolf can affect the maintenance of a favourable conservation status³⁵⁰⁹ However, in this case, the wolf was causing or at risk of causing significant harm and its killing it would not affect the population status of Finnish wolves as a whole.³⁵¹⁰ The court also found that there were no satisfactory alternatives to killing the wolf.³⁵¹¹ The reindeer were freely grazing and herding them had not prevented them being killed.³⁵¹² The granting of a derogation to allow the wolf to be taken in order to prevent serious harm to the reindeer herds was therefore lawful.³⁵¹³

In relation to the other arguments put to the court, it found that the lawfulness of the management plan for wolves was not at issue in the case and was therefore not subject to appeal. The court also found that there was no need for an assessment to be made under section 65 of the Nature Conservation Act because the wolf is not included in the list of species to which that section applies.³⁵¹⁴ Finally, the court held that the Board of Appeals for Rural Industries was an independent appellate authority with jurisdiction to hear the first round of the appeal in this case.³⁵¹⁵

The Supreme Administrative Court therefore found that there was no reason to overturn the judgment of the Board of Appeals for Rural Industries and the decision of the Finnish Game Centre to allow the wolf to be killed was upheld.³⁵¹⁶

³⁵⁰⁷ *ibid.*

³⁵⁰⁸ *ibid.*

³⁵⁰⁹ *Case C-342/05 Commission v Finland* (n 343); *Appeal Against Derogations on the Hunting Provisions Relating to Wolves* (n 342) 14.

³⁵¹⁰ *Appeal Against Derogations on the Hunting Provisions Relating to Wolves* (n 342) 14.

³⁵¹¹ *ibid.*

³⁵¹² *ibid.*

³⁵¹³ *ibid.*

³⁵¹⁴ Habitats and Species Directive (92/43/EEC), Annex II(a); Nature Conservation Act (1096/1996) s 65; *Appeal Against Derogations on the Hunting Provisions Relating to Wolves* (n 342) 14.

³⁵¹⁵ *Appeal Against Derogations on the Hunting Provisions Relating to Wolves* (n 342) 14.

³⁵¹⁶ *ibid.*

G. International Legal Regimes in the Arctic

As was explained at 1.6 above this thesis has been primarily concerned with domestic legal systems within the Arctic but international law also plays a role in the protection of species and habitats. The key international treaties, agreements, laws and institutions which govern or influence species protection in the Arctic are briefly discussed below.

G.1. United Nations Convention on the Law of the Sea

The United National Convention on the Law of the Sea (UNCLOS) is a binding treaty which delineates sovereignty and control over the world's oceans and governs the high seas over which no sovereign nation has control.³⁵¹⁷ The USA is the only Arctic country not to have ratified the treaty but the provisions of the treaty are so broadly accepted that it is often considered to be customary law.³⁵¹⁸ States can claim sovereignty over the first twelve nautical miles off their shoreline as territorial waters, a further twelve nautical miles as the contiguous zone where their control is more limited and a two hundred mile exclusive economic zone.³⁵¹⁹ Beyond this the ocean is considered to be 'high seas' which are 'reserved for peaceful purposes'.³⁵²⁰

G.2. United Nations Convention on Biological Diversity

The United Nations Convention on Biological Diversity (the Biodiversity Convention, part of the Rio Convention) is a legally binding international treaty aimed at sustainable use of natural biodiversity resources to ensure conservation of ecosystems and species.³⁵²¹ It was first signed at the Earth Summit in Rio de Janeiro in 1992 and came into force on 29 December 1993.³⁵²² The convention obliges those countries which have ratified the treaty to develop various policies, systems and measures to protect ecosystems, habitats and species, to rehabilitate those which have been damaged and prevent any further

³⁵¹⁷ United Nations Convention on the Law of the Sea 1982.

³⁵¹⁸ Harry N Scheiber, 'Perspectives on the History of US Non-Ratification of the UN Convention' (2009) 1(1) Publicist 1.

³⁵¹⁹ United Nations Convention on the Law of the Sea 1982.

³⁵²⁰ *ibid*, art 88.

³⁵²¹ Convention on Biological Diversity 1992.

³⁵²² *ibid*.

extinctions.³⁵²³ The United States is the only Arctic country not to have ratified the treaty, although it has signed it.³⁵²⁴

G.3. Arctic Council

The Arctic Council is an intergovernmental forum aimed at promoting cooperation between Arctic states. It was set up in 1996 when the Declaration on the Establishment of the Arctic Council was signed in Ottawa, Canada on 19 September 1996.³⁵²⁵ The eight Arctic states are permanent members along with six groups which represent the various indigenous people groups and who act as permanent participants.³⁵²⁶ The Council has no law making powers and exists as a ‘high level forum...for promoting cooperation, coordination and interaction among Arctic States’.³⁵²⁷ Environmental protection is an important aspect of the Arctic Council’s work. The Council’s predecessor was the Arctic Environmental Protection Strategy and the Council adopted the mandate of that body to deal with environmental protection.³⁵²⁸ The Ottawa Declaration also included a commitment to sustainable development alongside the commitment to environmental protection.³⁵²⁹

G.3.1. Conservation of Arctic Flora and Fauna, CAFF

The Arctic Council working group with responsibility for biodiversity and endangered species protection is the Conservation of Arctic Flora and Fauna, known as CAFF.³⁵³⁰ The membership of the working group mirrors that of the Arctic Council and includes representatives from all eight Arctic nations, indigenous groups which are Permanent Participants of the Arctic Council and nations and organisations with observer status.³⁵³¹ CAFF conducts monitoring and assessment of biodiversity within the Arctic (such as population sizes and trends, ecosystem health and habitat status) and delivers this data to the Arctic Council and to those who live and work in the Arctic in order to allow for informed decision making.³⁵³² The working group also provides a forum through which

³⁵²³ *ibid.*

³⁵²⁴ *ibid.*

³⁵²⁵ Declaration on the Establishment of the Arctic Council (Ottawa Declaration) 1996.

³⁵²⁶ The Arctic Council, ‘The Arctic Council: A Backgrounder’ (28 September 2015).

³⁵²⁷ Ottawa Declaration 1996, Article 1.

³⁵²⁸ Young, ‘The Arctic Council at Twenty’ (n 9) 109.

³⁵²⁹ *ibid.*; Ottawa Declaration 1996, Article 1(a).

³⁵³⁰ ‘About CAFF’ (*Conservation of Arctic Flora and Fauna (CAFF)*) <<https://www.caff.is/about-caff>> accessed 23 January 2020.

³⁵³¹ *ibid.*

³⁵³² *ibid.*

the members are able to cooperate on species and habitat protection, to share knowledge and expertise and to ‘develop common response[s]’ to shared problems and threats to Arctic biodiversity.³⁵³³

G.4. Convention on the Conservation of European Wildlife and Natural Habitats
The Convention on the Conservation of European Wildlife and Natural Habitats, known as the Bern Convention, is a legally binding treaty between member states of the Council of Europe and some other states from Eastern Europe and North Africa.³⁵³⁴ The Convention aims to conserve wild flora and fauna, in particular endangered species.³⁵³⁵ Of the Arctic nations included in this study, Denmark, Finland, Norway and Sweden are parties to the Convention.³⁵³⁶

G.5. Agreement on the Conservation of Polar Bears
In 1973, the nations in which polar bears can primarily be found, the United States of America, Canada, Denmark (for Greenland), Norway (for Svalbard) and the Soviet Union, entered into a treaty to coordinate the conservation and protection of polar bears.³⁵³⁷ Such an agreement was necessary because over harvesting in the previous two decades had caused the population of polar bears to drop substantially.³⁵³⁸ The parties agreed to limit the hunting of polar bears to indigenous people (although they may sell their allotted quota to sport hunters), for scientific purposes and for conservation reasons.³⁵³⁹ They also agreed to prohibit hunting from aircraft and ships such as icebreakers, thereby making it more difficult to hunt polar bears.³⁵⁴⁰ The parties committed to make efforts to conserve the habitats of polar bears, particularly those areas used for denning, feeding or migration.³⁵⁴¹

³⁵³³ *ibid.*

³⁵³⁴ Convention on the Conservation of European Wildlife and Natural Habitats (adopted at Bern 19 September 1979, entered into force 1 June 1982) (Bern Convention).

³⁵³⁵ *ibid.*

³⁵³⁶ *ibid.*

³⁵³⁷ Agreement on the Conservation of Polar Bears (signed at Oslo 15 November 1973, entered into force 26 May 1976).

³⁵³⁸ *ibid.*; ‘The 1973 Agreement on the Conservation of Polar Bears’ (*Polar Bear Agreement*)

<<https://polarbearagreement.org/about-us/1973-agreement>> accessed 2 August 2019.

³⁵³⁹ Agreement on the Conservation of Polar Bears 1973, articles I, III.

³⁵⁴⁰ *ibid.*, article IV.

³⁵⁴¹ *ibid.*, article II.

G.6. Convention on the International Trade in Endangered Species

The Convention on the International Trade in Endangered Species of Wild Fauna and Flora (CITES) plays an important role in the protection of endangered species at an international level because it requires the parties to prohibit the import and export of endangered species between countries, thereby dramatically reducing the market for endangered species.³⁵⁴² This, in turn, discourages poachers from taking species which are endangered as they have nowhere to sell them.³⁵⁴³ Some species can be transported as long as the correct paperwork is in place. Many Arctic species are protected by the provisions of CITES, including narwhal, bowhead whale and polar bear.³⁵⁴⁴ All of the Arctic nations are parties to CITES.³⁵⁴⁵

G.7. International Convention for the Regulation of Whaling

The International Convention for the Regulation of Whaling is an international treaty which was concluded in 1946 aimed at regulating the whaling industry through limiting whaling to sustainable levels.³⁵⁴⁶ The International Whaling Commission, established under the convention, has responsibility for managing whaling, including setting catch limits, conducting scientific research and taking conservation measures with regards to whales.³⁵⁴⁷ In 1985, the Commission imposed a moratorium on commercial whaling and this moratorium has remained in place ever since.³⁵⁴⁸ Aboriginal subsistence whaling is permitted, with catch limits established, and, small numbers of whales may be taken for the purposes of scientific research.³⁵⁴⁹ All of the Arctic nations are signatories to the convention, except for Canada which withdrew from membership in 1982.³⁵⁵⁰ Norway is a member state but has registered an objection to the commercial whaling moratorium and does not adhere to the ban.³⁵⁵¹

³⁵⁴² Convention on the International Trade in Endangered Species of Wild Fauna and Flora (adopted at Washington DC on 3 March 1973, entered into force 1 July 1975) (CITES).

³⁵⁴³ *ibid.*

³⁵⁴⁴ *ibid.*

³⁵⁴⁵ *ibid.*

³⁵⁴⁶ International Convention for the Regulation of Whaling 1946.

³⁵⁴⁷ 'International Whaling Commission' <<https://iwc.int/home>> accessed 2 August 2019.

³⁵⁴⁸ International Convention for the Regulation of Whaling 1946, Schedule, s 10(e).

³⁵⁴⁹ *ibid.*; 'International Whaling Commission' (n 3547).

³⁵⁵⁰ International Convention for the Regulation of Whaling 1946, Schedule, s 10(e).

³⁵⁵¹ *ibid.*, Schedule, s 10(e).

G.8. Convention on the Conservation of Migratory Species of Wild Animals

The Convention on the Conservation of Migratory Species of Wild Animals, known as the Convention on Migratory Species or the Bonn Convention, is an international treaty aimed at conserving species which migrate across national borders.³⁵⁵² In appendix I, species which are threatened with extinction are listed and the parties to the convention are required to grant strict protection to these species.³⁵⁵³ Appendix II lists species where agreements between parties or groups of parties would benefit the conservation of that species.³⁵⁵⁴ The convention provides a framework in which binding agreements or non-binding memoranda of understanding can be concluded in relation to appendix II species.³⁵⁵⁵ Of the Arctic nations include in this study, only Norway, Sweden and Finland are signatories to the convention.³⁵⁵⁶

G.9. Ramsar Convention on Wetlands of International Importance

Known as the Ramsar Convention, the Convention on Wetlands of International Importance Especially as Waterfowl Habitat, is an international treaty which aims to conserve and protect wetlands, particularly those which are used as the habitat of waterfowl.³⁵⁵⁷ The convention obliges parties to protect their wetlands, which it defines as including lakes, rivers, marshes, deltas and many other bodies of water, by using wetlands ‘wise[ly]’ on a domestic level, by identifying and listing internationally important wetlands (known as Ramsar sites) and taking steps to conserve such sites, by creating nature reserves on wetlands and by international cooperation over transboundary wetlands and species which cross national boundaries.³⁵⁵⁸ All of the Arctic nations included in this study are parties to the Ramsar Convention and all but the United States have listed wetlands located in the Arctic as Ramsar Sites.³⁵⁵⁹

³⁵⁵² Convention on the Conservation of Migratory Species of Wild Animal (adopted at Bonn on 23 June 1979, entered into force 1 November 1983).

³⁵⁵³ *ibid.*

³⁵⁵⁴ *ibid.*

³⁵⁵⁵ *ibid.*

³⁵⁵⁶ *ibid.*

³⁵⁵⁷ Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat (adopted at Ramsar, Iran on 2 February 1971, entered into force 21 December 1975).

³⁵⁵⁸ *ibid.*

³⁵⁵⁹ *ibid.*; ‘Country Profiles’ (*Ramsar*) <<https://www.ramsar.org/country-profiles>> accessed 2 August 2019.

H. Recommendations

For ease of reference the recommendations found in Parts I, II and III of the analysis of this thesis are listed together here

Part I

1. The USA should implement restrictions on seeking out polar bears in order to prevent polar bear safaris from taking place, given the risk that these activities can disturb polar bears.
2. Svalbard and Greenland should introduce a consultation requirement similar to that found in the USA, whereby government departments making decisions which could affect an endangered or threatened species must consult with the US Fish and Wildlife Service to consider the implications of the project on the species and to find ways to limit the impact. This would ensure that species protection is given priority in governmental decisions.
3. Canada should find a way to increase the threat status of the polar bear to higher than a being a Species of Special Concern. This could be done either through the Species at Risk Act 2002 or the Marine Mammal Regulations 1993. Additional action to protect the polar bear would also be needed from the territories.
4. If the impact of listing Arctic species as threatened on indigenous people is preventing the Canadian government from listing such species, the Species at Risk Act 2002 should be amended to allow the federal government to grant exceptions to for subsistence hunting for indigenous people.
5. The Canadian system of species protection is currently ineffective because of the split in responsibility between federal and territorial authority. Action is needed to enhance the protection of species listed at a federal level, either by the territories committing to consider a species for listing within one year (or other suitable time period) of a species being listed as a species at risk. Alternatively, the federal government should use its

power to extend the protections on federal land to territorial land under section 35 of the Species at Risk Act 2002.

6. Sport hunting of Arctic species is unnecessary and should be ended. Canada, and the territories which currently allow it, should end sport hunting of polar bears and allow only indigenous subsistence hunting. Those countries which allow sport hunting of other species, such as the USA and Greenland in relation to Arctic fox should take measures to end the practice. Hunting in the Arctic should be limited to locals engaging in subsistence or cultural practices, scientific research and the protection of people and property.
7. Those countries (USA, Canada and Greenland) which have not yet created protections for the Arctic fox should consider listing it as threatened, or taking other action to ensure that the Arctic fox (and other similar species) is protected, on the basis that climate change is likely to pose a severe threat to the survival of Arctic adapted species. Designating a critical habitat and including the Arctic fox and other similar species in wildlife management plans should also be considered.
8. Having effectively drafted regulations for the protection of all mammal species on the island, Greenland should consider expanding its protection to other species of plants and animals.
9. Norway should consider whether there are other Arctic species which would benefit from being listed as priority species and take action to list them.
10. Regional action should be taken to protect Arctic species which are vulnerable in one part of the Arctic, even if they are common in other parts of the Arctic. This could involve the Arctic nations entering into treaties to protect Arctic species in line with the Agreement on the Conservation of Polar Bears or the nations agreeing to offer baseline protections to species which have been listed in other Arctic countries, even if they are not willing to list the species as protected in their own country. The Arctic Council could be an appropriate forum for negotiating a treaty to this effect.

Part II

11. All jurisdictions should consider adopting a model for the recommendation of new species to be protected, which balances independent scientific information and political oversight. The recommended model is one which has an independent scientific body which is tasked with reaching decisions on the threat status of any species. This body should be made up of biologists, ecologists, other academics with relevant expertise and representatives of those with traditional ecological knowledge about the species under consideration. This body should not have political or governmental representatives on it. The scientific body should make recommendations to the government who will make the final decision on the listing of a species, providing political oversight for what is a political decision, but doing so with high quality, independent scientific data.

12. For jurisdictions with a listing structure, the necessary amendments should be made to enable the list of protected species to be easily updated and regular reviews of the threat status of Arctic species should be introduced. This should include amendments to the lists of protected species in countries which rely on the Habitats and Species Directive and the Birds Directive, even if the lists in those Directives are not amended.

Part III

13. Arctic species should be proactively listed as threatened species on the basis of climate change predictions in all Arctic jurisdictions rather than waiting for populations to be harmed before taking action. In jurisdictions which have provisions for higher levels of protection, key Arctic species should be included on these lists given the serious threat which is posed by climate change in the Arctic.

14. Jurisdictions should consider adopting, in whole or in part, a specific structure of endangered species protection to allow for individualised plans to be made for protecting Arctic species from future threats.

15. Provisions should be adopted to combat the general threats facing Arctic species such as climate change, plastic in the Arctic Ocean, chemical pollution and the threat caused by increased access to the Arctic by humans. These provisions could be general for all species, for Arctic species alone or made part of specific regulations protecting

individual species depending on the structure of the jurisdiction. It is really beyond the scope of this thesis to find solutions to environmental problems not directly relating to endangered species protection law but some suggested provisions include:

- 15.1. a prohibition on the use of plastics in shipping, fishing and other marine industries in the Arctic Ocean or a deposit scheme requiring industrial ships to return to port with the same weight of plastic with which they left. The forfeited deposits could be used to pay for rewards for plastic collection from Arctic beaches.
- 15.2. a prohibition on gas flaring except in emergency situations.
- 15.3. installing renewable technology in Arctic communities.
- 15.4. reducing the dependence of Arctic communities on carbon emitting fuels such as diesel for four-wheelers and open fires in homes.
- 15.5. identifying sources of plastic and chemical pollution which are emitted directly into the Arctic Ocean and taking steps to eliminate them such as providing for more effective waste disposal in coastal Arctic communities and prohibiting discharge of chemicals into rivers which flow into the Arctic Ocean.
- 15.6. developing codes of practice for cruises and shipping in the Arctic which require ships to limit their environmental impact.

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