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The Wolf Dilemma:

Following the Practices of Several Actors in Swedish Large Carnivore Management

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Master's thesis in Global Environmental History

Abstract

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The wolf is an endangered animal in Sweden and the issue of conserving the species is a polarizing one. Specific attention has been given to this issue in environmental social sciences with studies focusing on the divide between wolf support and opposition. These studies include looking at historical interactions with the wolf, contemporary attitudes about the issue, and the way the law shapes policy. Following this focus on the disputed nature of wolf conservation, this thesis addresses whether polarization over the issue occurs between several stakeholders in large carnivore management in Sweden. Using Actor Network Theory, this thesis examines the similarities and divergences in the stakeholders' conservation practices and maps their interactions with one another. Emphasis is placed on how the European Union's regulations and the Swedish State's policies conflict and/or influence the stakeholders. Overall results show that despite a discourse of polarization surrounding wolf management in Sweden, the actors in this study cannot be easily positioned against each other, and despite some divergences, share many similarities in their large carnivore management practices.

Keywords: Large Carnivore Management, Wolf, Biodiversity, Stakeholders, Global Environmental History

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Morag Ramsey, Uppsala May 25, 2015

Table of Contents

List of Figures

Acronyms

ANT – Actor Network Theory
CAB – County Administration Board
EC – European Commission
EEA – European Economic Area
EU – European Union
FACE – European Federation of Associations for Hunting and Conservation
FCS – Favourable Conservation Status
FRR – Favourable Reference Range
FRP – Favourable Reference Population
FRV – Favourable Reference Values
IUCN – International Union for the Conservation of Nature
MVP – Minimum Viable Population
The Swedish EPA – The Swedish Environmental Protection Agency
SAC – Swedish Association of Carnivores
SAHWM – Swedish Association for Hunting and Wildlife Management
SKANDULV – Research on Wolves in Scandinavia
UN – United Nations
NGO – Non Governmental Organization
WWF – World Wildlife Fund for Nature

List of Illustrations

Chapter 1: Introduction

"There's nothing so tragic as seeing a family pulled apart by something as simple as a pack of wolves." – Jack Handy

This thesis is a product of a two year master program in Global Environmental History; a young academic field still trying to find its footing. While there are various shapes, forms and topics that can be explored in Global Environmental History, the management of the wolf in Sweden touches on many relevant issues in the Environmental Humanities. This study focuses on the conservation of the Swedish wolf and thus falls within larger scholarship concerned with nature conservation, animal extinction, animal and human rights, and impacts of policy on landscapes. The struggles surrounding nature conservation surface on every continent, and while this study is entrenched in the Scandinavia peninsula, it provides a discourse that can be used globally.

In terms of large carnivore management, this thesis is specifically concerned with how licensed hunting is used in Sweden to manage the wolf. If one searches online for 'Swedish Wolf Hunt' the top hits allow a fascinating and clear look into many issues within the field of Environmental History. The most popular links are news outlets from Sweden and Britain: BBC, Radio Sweden, The Guardian, Sweden's The Local, and The Telegraph. While searching in English certainly preselects the possible sources, and usually offers shorter articles about the issue, the conflict between man and nature is still very visible. Most of the articles relay the struggle of Swedish laws versus the European Union's laws, but many of them also touch on conflicts between rural and urban inhabitants, and between the goal of maintaining a traditional lifestyle and the goal of maintaining biodiversity. Some of the sources even bring to light the tension over the scientific evidence used to make decisions over wolf management. These themes and responses are mirrored in the every day conversations about the wolf in Sweden, which I myself experienced when discussing my thesis topic with friends and colleagues. Most people in Sweden have an opinion about the wolf issue and often, as shown in the online searchers, there appears to be a side to take in the issue. These online searchers quickly reveal how controversial the wolf population is in Sweden and how it is generally perceived to be a very polarizing issue.

Sweden is similar to many other countries as it has gradually reduced its overall numbers of large carnivores and the Swedish landscape has changed since the times when it hosted an abundant amount of wild animals. The wolf is now an endangered animal in Sweden and the country has obligations both to its human inhabitants and to maintaining biodiversity in general. The wolf, however, is generally and globally not considered to be a 'neutral' animal in terms of public reception. Unsurprisingly, the wolf experienced a tumultuous existence in Sweden long before it drew near to extinction. Just as in many other areas, Sweden did not see the wolf with much benevolence, and instead the wolf has generally been considered a threat to livestock and personal well-being (Cinque 2011). According to a national census from winter 2013/2014, Sweden has a wolf population of about 370 wolves in which the

density is highest in a few central counties bordering Norway (ArtDatabanken n.d.).[1] The more northern counties are occupied with reindeer herding, and the southern counties have higher sheep husbandry numbers than central Sweden (Jordbruksverket 2014.). In terms of predation on livestock, a simple overview generally suggests the most favourable area to host wolves in Sweden is where they currently reside.

At a glance, the current presence of the wolf in Sweden has caused dilemmas on several fronts: for hunters, environmentalists, Sami, farmers, politicians, and local populations. As discussed above, the dilemma is largely perceived to be one of 'pro wolf' and 'anti wolf' groups coming into conflict. This, of course, is a simplification of the dilemma, and one that does not do much justice to the stakeholders in wolf management. As has been determined by scholars concerned with the Swedish wolf (Heberlein and Ericsson 2008; Cinque 2011) tension over the wolf is usually understood as a dichotomy between polarized camps such as: urban vs. rural, or hunters vs. the general public. As is illustrated by the conflicts' representation in news outlets, the root of the wolf problem in Sweden is still being interpreted in terms of dichotomies: man vs. nature, or science vs. local knowledge among other interpretations. However, as will be elaborated on in the next chapter, it was the issue of science vs. science that initially drew me into this topic. Examining the larger theory behind scientific manipulation ultimately led to the inspiration behind this thesis.

I was drawn into the dilemma by the way science further confounded many issues in wolf management. Despite different stakeholders drawing on similar science to base their management decisions, they still had varying management strategies and target populations. Different stakeholders' recommended population numbers for the wolf in Sweden span from 150 wolves to more than 1000 wolves. While an intriguing place to begin, I wanted to go further than assuming science is fractional and manipulative. My study is not interested in truths about wolf numbers in Sweden, nor about good or bad Minimum Viable Population numbers. Rather what interested me was the relationships between actors and how they draw on science, legislation, and public opinion to make decisions and formulate policy around the wolf. As has been stated above, this issue of the wolf is perceived to be very polarized, with pro and anti wolf positions. However, as I explored the network of relationships around wolf management, stakeholders considered opposed seemed to be mostly at odds over how many wolves Sweden should have, and not over whether Sweden should have wolves at all. I wanted to look at official stakeholders as complicated actors who could have similarities, divergences, and networks between themselves. To do so I had to start the exploration of relationships between actors without making pre-assumptions about stakeholders' positions and motivations regarding the wolf. This begins with exploring the network itself: who makes decisions, how they make them, and whom they interact with. As the historian Libby Robin (2001:25) writes, "responding to crisis depends on the understanding of the underlying problem." The conservation of the wolf can be considered a form of management crisis, and this thesis illustrates the different underlying problems for official stakeholders when it comes to the wolf.

Here, I examine different official stakeholders in large carnivore management in Sweden in an attempt to demystify this discourse of polarization. My research aims developed on several levels. First, I wanted to clearly understand each actor's role, responsibility, and practices in wolf management. A coherent explanation of official stakeholders' positions and networks is necessary to move on to any sensible analysis of the issue. This led to a clear articulation of my research question: how do networks between a select group of actors

[1] The population censuses are taken before the typical reproductive cycle of the wolf, thus the actual number of wolves currently in Sweden is very likely higher than the census report. However, all the actors in wolf management rely on the census population to make decisions about wolf management, as that is preferable to guessing the actual wolf populations (Fredrik Widemo interview 2015-01-28).

in large carnivore management help explain the conflict surrounding the Swedish wolf? From this question I hoped to get insight into how networks reflected the actors' practices and vice versa, and how this in turn illustrated different forms the wolf assumes for the actors. Despite the simplification of the issue into pro and anti wolf groups, I hazarded to guess the reality was much more complicated, and this in turn is explained by the multiple truths the wolf can embody. By examining the actors' practices I hoped to find out how many realities exist for the actors when it comes to the wolf, and from this point to answer the question 'what IS the wolf'? I never expected to find one answer to this question, and as predicted the wolf takes on many different forms for the actors. I ultimately argue that the perceived polarization over the wolf is not a useful way to look at the issue in terms of stakeholders in wolf management in Sweden. Instead, the actors revealed their major differences to be complimented with many similarities in their practices and concerns over the wolf in its multiple forms. The source of the perceived polarization is actually found in a power struggle between two stakeholders: the EU and Sweden.

The wolf issue is highly relevant in the environmental humanities and also provides an avenue of investigation for natural scientists in the form of biology, genetics, and ecology. The dilemma transcends political borders and brings attention to discrepancies between urban and rural. It showcases Swedish law versus European Union law, and can be used as a comparative case study. Furthermore, the dilemma sheds light on psychological responses and attitudes to the animal and illustrates historical perspectives of the wolf. However, while reading about the issue I never came across a study that thoroughly investigated the networks and roles of the main policy influencers in Swedish large carnivore management. Perhaps this is because some of these elements are self-evident to the researchers involved in this field, or perhaps not all the actors I've chosen have been relevant to other academic investigations. Whatever may be the case, I found myself confused about the nature of the dilemma on a policy level, about the different roles of the actors and how they interacted, and about the differences and similarities between them. Untangling the basics seemed a good starting point for exploring further influences on the policy makers, and to illustrate to what extent science, legal frameworks, or other elements such as those of human rights play a part in influencing the actors.

Below follows a brief summary/mapping of the thesis and the different chapters. The mapping is important as it explains the structure of the thesis and how it relates to the individual chapters. There are many chapters in an effort to present a complicated issue as clearly as possible. As this topic has many layers, I wanted each chapter to contain only one main theme and idea to cleanly and sharply present ideas, actors, and issues to the reader. Chapter one to chapter three introduces the methodology, theory, and different actors involved in this study. The second section: chapter four and chapter five provide the reader with background information relevant to decisions taken in the analysis. These first two sections equip the reader with the analytical tools to move on to the third section: chapters six to ten. This final section presents the analysis of the actors' procedures, practices, and concerns related to the management of the wolf.

Chapter II Theory and Methods: This chapter outlines theory and methodology. I explain the way in which I interpreted and used Actor Network Theory and the different theoretical influences on my research. In the coming chapters I explore the network of wolf management through different angles using ANT. I will show how the relationships and networks between the actors change in each chapter.

Chapter III The Actors: This chapter presents the different actors in two major sections, the first which introduces the EU and the Swedish state as both actors in large carnivore management, and as authoritative points of reference for the other actors. The following section introduces the remaining actors who mostly work within Sweden and explores the

network of relations through official reports and interviews. As is shown, while the actors were initially grouped into sections based on international, national, and non-governmental agencies, the categorizations are quite malleable and the actors take on different roles and create different networks amongst themselves, at times blurring the distinctions.

Chapter IV The Wolf as a Villain: The wolf is an animal that usually elicits strong emotional connections from humans, many times provoking fear. This chapter looks at wider research on the wolf in Sweden focusing on the controversy shrouding the animal, particularly in connection with this fear. It serves to establish a wider context for the reader and respond to potential queries into why this thesis' analysis holds relevance. Instead of assuming the root of the conflict lies in the negativity of the animal, I allow the actors to develop their networks based on how they practice wolf management, and in doing so, illustrate another dimension of the Swedish wolf dilemma beyond the animal's controversial image.

Chapter V The Wolf as a Number: Now that the actors and wider research about the wolf have been introduced, the text turns back to the initial point of departure: the conflict and polarization over wolf management. This conflict is usually associated with the differing population recommendations. Using the number of wolves each actor recommends, this chapter presents evidence of the fractional nature of science. It is the departure point for the main analysis, and concretely illustrates the fractionality of science.

Chapter VI Factors Preventing Favourable Conservation Status: This chapter begins to challenge ideas of polarization by examining the concerns the actors share when it comes to maintaining a wolf population. It shows that despite the perceived polarization of the actors, they actually concern themselves with many of the same factors when it comes to wolf management.

Chapter VII The Wolf as Controversy: This chapter expands on the previous chapter's analysis, but focuses on the major divergences between the actors in their approaches to wolf management. It helps to finalize the different networks between the actors and ultimately illustrates their fluidity. These networks and fluidity, once again, help to create a competing narrative against the discourse of polarization.

Chapter VIII The Legal Knot: This chapter investigates the legal avenues available to the actors and how this impacts their practices and networks. It argues that a further examination of legal forces such as the Swedish legal system, and the European Union's Court of Justice is worth pursuing further to help elucidate a source for the discourse of polarization over the wolf.

Chapter IX The Wolf as an Actor: This chapter presents the wolf as an animal with its own agency through a case study. By using a case study of one female wolf that was relocated four times due to her presence in reindeer herding territory, the real impact of interacting with, and trying to manage a wild animal is illustrated.

Chapter X Conclusion. This chapter summarizes the thesis while simultaneously finalizing the analysis and argument that the polarization of the wolf issue is based in a discourse of polarization more so than in the polarization of practices.

Chapter 2: Methodology, Theory and Literature

This component of the thesis does not come naturally to me. Having a background in history, it is only through this master program (and an earlier fleeting entry into linguistics) that I have faced composing a section on theory and methods to accompany my writing. In addition to my inexperience in this regard, I was drawn towards a group of scholars who profess the inexplicable nature of their own methods; mainly scholars who borrow from Actor Network Theory. As many scholars will admit Actor Network Theory is not a theory at all.

Faced with this reality, I found it difficult to begin making sense of all the influences on my research. Encouraged to use Actor Network Theory in my study, I was left with the empty sensation of not actually using a theory. What then, could I put in the 'theory' section of my thesis?

After a few months of struggling with where the theory fit in, what methodology I was actually using, and how I was going to describe its influences, I finally returned to the literature that had initially inspired me. After going back to Steve Hinchliffe's *Geographies of Nature*, Annemarie Mol's *The Body Multiple*, and reminding myself of what John Law and Bruno Latour had to say about Actor Network Theory I felt I could finally attempt to weave together my theory, methods, and literature section.

One of the many things I have learnt from the thesis writing process is that depending on what one intends to look at in their research; a ready-made theory and methodology may not already exist. However, there are usually plenty of experienced and brilliant academics that have dabbled in your interests in someway or another, and being inspired and borrowing from a collection of different theories and methods may hold the answer.

2.1 Methodology

I had initially listed Actor Network Theory (ANT) as a component of my theory, but as John Law (2007:2) wrote, "theories usually try to explain how something happens, but Actor Network Theory is descriptive rather than foundational in explanatory terms, which means it is a disappointment for those seeking strong accounts". This realization, that ANT is a descriptive tool, helped shift my understanding of ANT from theory to method. As a method, ANT helped me place more emphasis on the practices of wolf management, rather than perspectives explaining the practices. Following in the footsteps of Mol's (2002) study of atherosclerosis, I was inspired to apply aspects from the three steps she lists to my own study.

Mol gracefully weaves her case study of hospital Z, with a history and background of the literature, methodology and shifts in paradigms that lead her to her conclusions. Part of her research includes highlighting steps she envisioned in her field, and illustrating how her research falls into the third step; "of foregrounding practicalities, materialises, and events" (Mol 2002: 12). This third step proved the most inspiring to my own work, and while conducting research around the Swedish wolf and not atherosclerosis, I feel the method Mol used to explain her research helped me contextualize my own method.

Concerned with the Swedish wolf, my thesis follows a group of actors who have an impact on official policy regulating wolf management. I followed the actors' decisions and interactions with one another through their press releases, mandates, official legislation, and when available interviews. My method was to examine the actors through their practices, through the events they engaged in, and through their decisions.

2.2 Method in Detail

The confines of a master thesis provided one of the preliminary criteria for establishing the scope of the research. Having a limited amount of space and time to carry out this study, I made a structured case and actor selection with the aim of capturing all aspects of the issue. I focused on one of the most explicit conflicts surrounding wolf management in Sweden: the legal proceedings against Sweden from the European Commission. From there I chose different actors who directly influence large carnivore management in Sweden, specifically selecting actors who swayed matters leading to the legal proceedings. I examined actors that are strongly opinionated in the wolf dilemma (hunters, environmental NGOs, Sami) and from the different actors available chose those who had time to be interviewed.

In this study the actors are sorted into three different factions; international, state level, and non-governmental agencies with a basis in Sweden. The international domain is channelled through the EU as an actor. While the international domain could be extended out further, for example to the United Nations, I have chosen to filter this component through the EU to streamline the study.[2] Instead of analyzing aspects of the UN's nature conservation policies, this thesis is only concerned with whatever the EU choses to incorporate from the UN. All EU member countries, including Sweden, agree to follow the EU's policies and laws. The EU level thus sets up the first framework that European nature conservation must work within. The remaining actors work under legal stipulations from both Sweden and the EU, and depending on their main purpose adhere more closely to one over the other.

The individuals interviewed at the differing institutions do not necessarily always represent the actors, but gave helpful insight into practical aspects of how the institutions function, how networks of knowledge and partnership are developed, and how opinion and policy are formed. I interviewed personal at different institutions who are largely considered wolf experts or are in charge of wolf related matters in the institution. I interviewed Helene Lindahl from the Swedish Environmental Protection Agency, Stefan Mikaelsson from the Sami Parliament, Fredrik Widemo from the Swedish Association of Hunting and Wildlife Management, Lennart Nordvarg from Uppsala County Administration Board, and Ann Dahlerus from the Swedish Carnivore Association. Each interview was designed to span roughly an hour, and took the form of a semi-structured conversation. External circumstances cut the interview with Stefan Mikaelsson to forty minutes and Ann Dahlerus' interview ran for eighty minutes. As I conducted these interviews for qualitative information and better understandings of the organizations in general, they functioned quite well formatted more casually than other interview techniques. That being said, I still attempted to keep the same level of detail in all my interviews by using the same line of inquiry with all the interviewees. The basic elements I looked for included the interviewee's own role in their organization, the role of the organization in wolf management, the organization's

[2] The EU, of course, is not a simple entity and can be approached in many different ways as an actor. While I was mostly preoccupied with the EU's executive body, the European Commission, many of the actors involved in this study referred simply to the 'EU' as an actor unto itself. This being the case, the 'EU' materialized as an actor, despite this perhaps seeming a vague approach to those more involved with political science.

attitudes to nature conservation, the organization's responses to the wolf, and how the organization worked with other stakeholders in large carnivore management. Other smaller questions fell under these lines of inquiry, but I attempted to keep the questions very similar. A draft of the thesis was sent to all the interviewees before the examination deadline so they could make adjustments or give any additional feedback on how their organization was presented in the text.

In terms of documents I used official mandates, policy documents, legislation, management plans, and official web pages as well as secondary sources. I relied mostly on official documents from the various actors. The sources range from the 1970s forward, but most were published in the early 2000s until present. The institutions themselves authored the vast majority of the material rather than individual authors, the exception largely being the secondary documents. Many of the documents rely on pre-existing legislation, or are themselves official legislation. This thesis relied on documents in both English and Swedish, not being fluent in Swedish I relied on my basic skills, translation tools, and the aid of my Swedish-speaking friends and colleagues to assist me when needed.

As for limitations of this study clearly my capacity as a single researcher shaped the scope of my research. I used only a select group of actors in wolf management and this research can of course be expanded in many directions. I also limited my involvement with politics surrounding the wolf to how the selected actors approached these politics. In hindsight, a more thorough investigation of purely political actors who influence wolf management, such as the Swedish Parliament, could heighten such an analysis.

2.3 Analytical Tools

This thesis uses the term 'actor' in reference to the performativity of several organizations in wolf management. 'Actor' is not used to denote a singular human performer, and while individuals from the organizations were interviewed and involved in this study, they should not be confused as the primary 'actors' in this thesis. As explained above, they simply compliment and build on the general understanding of the organizations as actors.

As for 'networks' this term is used to look at connections between the actors, either as official partnerships, treaties, agreements, or shared theoretical concerns. This is perhaps not as adventurous a use of ANT as its' creators hoped for, as many academics have pushed ANT to much less obvious social ties in order to illustrate the infinite nature of the field (Latour 2005; Mol 2002; Whatmore 2002). But just because ANT has been used in more creative ways than mapping the actions of organizations, does not mean it cannot still be successfully used in this manner. What is important to me, is that instead of assuming social factors and forces explain present conditions, as discussed by Bruno Latour in his book *Reassembling the Social: an introduction to Actor-Network Theory*, I use network and actors to avoid using the idea of 'placeholders'. The idea of placeholders removes agency from the organizations and instead assumes these specific organizations just react in such a manner as any organization would in their position. I want to avoid assuming a structural explanation for this conflict, and instead see the actors as shaping the present by relying on and creating unique networks. In the words of Latour "Remember that if an actor makes no difference, it's not an actor" (Latour: 130).

While using components from ANT, this methodology was mostly used to shift emphasis back onto practices and to highlight the agency of the organizations. I did not necessarily treat the actors as if they were all equal in this debate, as it is clear from the legal structures that they are not supposed to be. Some actors have designed laws and guidelines that other actors are supposed to follow. This constructs different forms of power between the actors,

which theoretically runs from the EU down to the local level. I am neither a political scientist, nor a specialist in EU law, but one of the interesting aspects of this dilemma is how power enacted by these actors sometimes contradicts the power hierarchy. I use the conflict over wolf management strategies between the European Union and the Swedish Government as the root of the issue, and from there also treat them as larger frameworks that the other actors work within.

2.4 Theory

My theory and methodology developed simultaneously while I conducted research and investigated the actors. Richard Swedberg (2011) and his chapter "Theorizing in Sociology and Social Science: turning to the context of discovery" partly explains the development of theory for my thesis. As Swedberg (2011) advocates, much of my theory appeared during the writing and research process. Additionally, using a methodology that places emphasis on practices and the development of networks was partly a result of what drew me to the research subject: the fractionality of science. This of course is not to suggest that science does not contribute to knowledge or expand human understandings of the world, it simply draws attention to the multiplicity of the 'truth' even when natural science is involved.

Studying Global Environmental History exposed me to literature that dealt with different interpretations, uses, and manipulations of science (Backsträndˆ 2004; Lynn White Jr 1974; McEvoy 1982; Robin 2011). When it came to the dilemma of how many wolves Sweden should host, I was intrigued by the differences in recommended population numbers offered by different actors. While this discrepancy piqued my interest, it only added to a larger rhetoric existing since Thomas Kuhn's (1962) The Structure of Scientific Revolutions. In disciplines such as sociology and history, science has generally lost both its image of unity, and its ability to determine absolute truths through facts (Mol 2002). My research fits into this theory, and in honouring Mol, my "driving question no longer is 'how to find the truth?' but 'how are objects handled in practice" (Mol 2002:5).

Chapter 3: The Actors

3.1 The European Union and the Swedish State: Actors, Frameworks and Umbrellas

The EU's executive body, the European Commission (EC), has taken grievance with Sweden's wolf conservation policies since 2010 when Sweden began allowing licensed wolf hunts (Darpö: 251). In January 2011, the EC sent a letter of formal notice to Sweden in regards to Sweden ignoring article 12 of the Habitats Directives (EC 2011). A letter of formal notice is the first step in pre-litigation, in which the member state is requested to "submit its observations within a given time limit on an identified problem regarding the application of Community law" (EC 2015a: para. 4). Following this letter, the EC sent a reasoned opinion to Sweden to amend its wolf policy in June of the same year. The EC's second press release stated that if Sweden failed to adjust its policy they may take Sweden to the EU Court of Justice.

Sweden is generally thought of as a poster-child for environmental issues, human rights, and forward thinking in general (Pred 2000:6). For many people, Sweden's conflict with the EU over the wolf may come as a surprise. Why is a country, which is normally thought of as very progressive, fighting the EU over the management of a large carnivore? I do not think there is a simple way to get to the answer, but by tracing the actions, processes, and decisions of some of the actors and stakeholders involved in large carnivore management in Sweden, maybe a small part of the knot can be loosened.

While Sweden is supposed to adhere to the European Union's laws and regulations, the Swedish government itself acts as the primary framework for some of the actors in wolf management. State actors in Sweden such as the Swedish Environmental Protective Agency and the County Administrative Boards receive directives from the state when it comes to creating their policies and management plans. These two actors: the EU and the Swedish state supposedly act as the first two layers which the final actors work under, and yet, if they are conflicted, what does that mean for the other stakeholders.

The EU and the Swedish State are thus supposed to be actors with more decision making power than the others. They simultaneously work as a framework for other actors and as actors themselves. The remainder of this section looks at the interactions and networks between the EU and the Swedish state as actors in large carnivore management. Special attention is given to aspects of the EU's history of environmental protection that led to the Habitats Directive and Natura 2000, and Sweden's Environmental Code, which other stakeholders repeatedly refer to in their own management.

3.2 The European Union

The European Union largely became preoccupied with the environment in the 1990s (EU n.d.a). Other organizations took notice of environmental issues in the 1970s, but the EU was still preoccupied with economic affairs, and in their summaries of EU legislation they problematize this failure to connect to the environment. The EU writes, "the European Union internal market was criticised for putting the economic aspects and trade before

protection of the environment, which was perceived as a potential barrier to trade rather than as an end in itself" (idem). The EU considered their short sighted environmental policy rectified with the Treaty of Amsterdam in 1997, a treaty that incorporated ideas of sustainable development into the Treaty on European Union (Treaty of Amsterdam 1997). Since then, the EU has attempted to incorporate the environment into more policy as can be seen with their focus on environmental integration (EU n.d.a). Under the EC treaty of 1997, "environmental protection requirements must be integrated into the definition and implementation of the Community policies… in particular with a view to promoting sustainable development" (Treaty of Amsterdam 1997: Article 6). From the 1990s onward, the EU made an effort to incorporate environmental protection into its directives.

As it is a vast area to cover, the EU broke environmental protection into several components. From climate change, sustainable development, waste management, air pollution, water management, soil protection and the protection of nature and biodiversity, the EU has a lot to delegate (EU n.d.b). This thesis focuses on the last category, the protection of nature and biodiversity, as its legislation deals with the conservation of the Swedish wolf. The Habitats Directive and subsequently Natura 2000 are generally considered important aspects of the EU's nature conservation policy.

In April 1979, the EU established Directive 79/409/EEC, more commonly referred to as the 'Birds Directive.' More than a decade shy of the 1990s, the Birds Directive was the first EU legislative text concerning nature (EU 2010). It was an attempt to protect bird species in the Union and recognized birds as a "shared heritage of the EU Member States" (EU 2010: para.14). It was not until May 1992 that the EU established the Habitats Directive, a broader directive concerning nature conservation. The Habitats Directive concerns the conservation of habitats and of wild fauna and flora, and considered alongside the Birds Directive gave the grounds for establishing Natura 2000 (EC 2015a). The EU's Natura 2000 is a network of protected nature areas within the EU and fulfills a component on community obligation under the United Nation's 1992 Convention on Biological Diversity (EC 2015b). Based on lists contributed by member states and working with the EU's nine biogeographical regions and areas of 'community importance,' Natura 2000 ensures that sites are established for nature conservation (idem).

The habitats directive and Natura 2000 provide a larger legal framework the EU can work within when it comes to specific animal conservation efforts. Within the EU's LIFE programme, for example, there are components that deal with animal conservation. In the first phase of LIFE, from 1992-1995, protection of habitats and nature received 45 percent of the programme's budget (EC 2015d). The second phase of LIFE saw an increase of this budget by one percent, and was rebranded LIFE-nature. On the European Commission's History of LIFE page, they explain how nature conservation projects that align with the Habitats Directive are eligible for financial support (idem.).

While there are many different avenues for environmental protection, even in the protection of nature and biodiversity alone, the EU has established specific policy and guidelines to do with large carnivores. On their section about Species Protection and Large Carnivores the EU covers population management, stakeholder dialogues, and promotion of best practices. Keeping in mind the tension that arises when re-establishing large carnivores population, the EU developed the platform Coexistence Between People and Large Carnivores in June 2014. (EC 2015c)

The EU relies on contributions from states and NGOs to make decisions regarding its large carnivore guidelines. The world's oldest global environmental organization, the International Union for Conservation of Nature (IUCN) regularly provides the EU with the European Red Lists that the EU used to make assessments on nature conservation (IUCN

2011). The IUCN, particularly their specialist group, the Large Carnivore Initiative, prepares the publications funded by the European Commission such as the *Guidelines for Population Level Management Plans for Large Carnivores*, or the report on *Status, Management and Distribution of Large Carnivores 2012.* These publications, in turn, are compiled by research centres such as the Norwegian Institute for Nature Research (NINA), and Istituto di Ecologia Applicata (IEA). They are also co-authored by researchers from diverse institutions and facilities such as Grimsö Forskningsstation, and the Research Institute of Wildlife Ecology. (Linnell *et al*. 2008)

In addition to researchers facilities, there are many NGOs besides the IUCN that involve themselves in the EUs nature conservation efforts. For example, there are a number of organizations that joined the EU's platform on the Coexistence Between People and Large Carnivores; these include, amongst other organizations: European Farmers and European Agri-cooperative, European Landowner's Organization, Joint representatives of Finnish and Swedish reindeer herders, and The European Federation of Associations for Hunting and Conservation.

The EU is an incredibly complex governing body and there is tremendous fluidity between member states, NGOs, research facilities and decision-making. The Habitats Directive and Natura 2000 remain the most powerful legislation referred to by many actors when they justify their reasoning behind large carnivore management.

3.3 Sweden

Since Sweden hosted the first UN Conference on the Environment in 1972 it has kept a relatively good international image for itself in terms of environmental matters (Lundgren 2011). While Sweden often points to their long history of nature protection stretching back to their early introduction of national parks, according to the historian Lars J. Lundgren, significant advances in Sweden's environmental protection efforts did not really come until the 1960s (Lundgren 2011: 3). While there are several important pieces of legislation and developments in Swedish nature protection such as the Nature Conservation Act of 1964, founding the Swedish Environmental Protection Agency in 1967, and establishing the Ministry of the Environment and Energy in 1987, the Swedish Environmental Code of 1998 is now the backbone of much of their policy (idem). The Code was developed after Sweden's entry into the EU, and combined their own national environmental policies with components from the European Union.

The primary aim of the Swedish Environmental Code is to promote sustainable development, which more often than not is associated with finding 'clean' alternatives to economic expansion and general growth. A quick look in oxford dictionaries defines sustainable development as: "Economic development that is conducted without depletion of natural resources" (Oxford 2015). This of course offers a fairly large margin of activities that can fall under sustainable development. It also leads to inquiries into what exactly constitutes a 'natural resource'.

But precise definitions aside, sustainable development is a broad goal and in an attempt to encompass many aspects, the Swedish Environmental Code contains 500 sections (The Swedish Environmental Code). Part II of the Swedish Environmental Code contains a section on Area and Species Protection in which chapter eight contains relevant guidance for species protection (idem.). As is such, maintaining biodiversity is one of the ways Sweden promotes sustainable development practices. While environmental protection in Sweden has taken one shape or another for more than a century, maintaining biodiversity is one of the more recent concerns, not gaining much traction until the 1990s (Lundgren 2011: 32).

I am aware that this section of the thesis essentially compares two dissimilar entities: a country, and an international governing organization. The EU is not very comparable to a singular country, and both Sweden and the EU's environmental protection policies developed under different circumstances. But Sweden joined the EU in 1995 and according to Lundgren, an exchange occurred. On Sweden's accession to the EU Lundgren comments, "Membership would give Sweden greater opportunities to influence environmental policy throughout Europe, but leave it less space to pursue more ambitious policies of its own. What was better?" (Lundgren 2011: 34) While not the primary focus, this thesis circles around that thought, not necessarily valuing Sweden positively or negatively in relation to the EU, but addressing the practices and developments that were born out of this union.

3.4 Sweden and the Wolf

Before being hunted to extinction in Sweden during the 20th century, the wolf was a native species to the Scandinavian Peninsula (Laikre *et al.* 2012). According to Lönnberg (1934) the Swedish wolf population hit its peak around 1830. Today, while most of the Scandinavian Peninsula offers viable habitat conditions for the wolf, conflicts with humans restrict the population to more southern western parts of Sweden (Liberg *et al*. 2012).

Whether based on monetary incentive, fear, sport, industrialization processes or protection of livestock, the cumulative efforts of the Swedes finally drove the wolf to extinction in the 1960s (ArtDatabanken 2015). Following this, the Swedish government finally listed the wolf as a protected species in 1966 and in the early 1980s a pair of wolves established themselves in Värmland, a western Swedish county bordering Norway (idem). Shortly after, a male wolf joined the pair and these three wolves are the main founders of the current Swedish wolf population (idem). While initially debated, it is now generally agreed that these wolves came from the Finnish/Russian wolf population to the East (Liberg 2002). The Swedish Environmental Protection Agency's most recent survey of 2013/2014 lists roughly 370 wolves in Sweden (SEPA 2014a).

While Sweden authorized a licensed hunt on the wolf in 2010 and 2011, they abstained from one in 2012 (Därpo 2011). Although the European Commission took steps in pre litigation against Sweden in 2011, they did not take the final step of bringing Sweden to the EU Court of Justice. In 2013 Sweden again pursued a wolf hunt, but considered it different from the licensed hunts of 2010 and 2011. Swedish Environmental Protection Agency director Maria Aagren is quoted in a news article saying the 2013 hunt "(was) not a normal licensed hunt" (Phys 2013). The 2013 targeted cull hunt was schedule for the end of January, but the Swedish courts suspended the hunt shortly after it began because of appeals from NGOs (Därpo 2011). Finally in 2014 Sweden successfully administrated a licensed wolf hunt. While still hotly debated, and passing through two levels of Swedish administrative courts, the hunt began in two Swedish counties on January 16th 2015 with a target number of 36 wolves in total (Bergman 2015).

These two largest frames: The EU and the Swedish State are bound together when it comes to environmental policies and practices. These two actors are caught in a partnership, a voluntary union based on treaties, policy and law. Democracy is important to the EU and how it governs, and on entering the EU Sweden made binding agreements, some which stretch to environmental protection. In theory, the EU acts as a larger legal umbrella under which Sweden acts. But the interpretation of directives, agreements, and scientific evidence can vary significantly.

3.5 The Remaining Actors

The remaining actors work under the umbrella of both the European Union and the Swedish State, and depending on their purposes place one umbrella higher than the other. In terms of state actors there is the Swedish Environmental Protection Agency (Natursvårdsverket) and the County Administrative Boards (Länsstyrelse). While one is a state authority and the other a local governing body, both these actors receive directives from the Swedish government. As for non-governmental actors I attempted to achieve a balance by involving organizations perceived as for and against large carnivores, such as the Swedish Carnivore Association (Svenska Rovdjursföreningen) and the Swedish Association for Hunting and Wildlife Management (Svenska Jägareförbundet). The later receives minor directives from the government, but not regarding the Swedish wolf. Occupying its own puzzling category beyond the ones mentioned above is the Sami Parliament (Sametinget). The Sami Parliament does not fit into the state category, and yet, represents the Sami people in a parliament.

For the sake of clarity I have broken the main actors up into these factions, yet it must be indicated that they do not exist separately from each other. While NGOs and states interact with international organizations such as UNESCO and the IUCN, these international institutions in turn depend on membership from NGOs and states. The main reason for breaking up the actors is to follow every day rhetoric about the wolf dilemma. As was hinted at in the introduction, newspapers, such as The Local (2014), the BBC (2011), and Sveriges Radio (2013), pit the Swedish state against NGOs (such as WWF and Rovdjursföreningen), the EU against the Swedish state, and rural populations against the EU. This thesis aims to examine how these actors interact and what influences their decisions and I have sorted them into groups given the current manner they are represented to me. However, this thesis leaves space for these groups to merge, and for the actors to perform their role as they see fit. The rest of this chapter presents the remaining actors through the lens of their large carnivore management, whittling them down to their wolf policies.

3.5.1 The Swedish Environmental Protection Agency

The Swedish Environmental Protection Agency (Natursvårdsverket) is the public agency in Sweden working for the government when it comes to matters dealing with the environment (SEPA 2015a). The Swedish Environmental Protection Agency (The Swedish EPA/SEPA) must adhere to Swedish and European Union law in addition to managing different bilateral and multilateral agreements (idem.). Sweden and the Swedish EPA also work closely with the European Environment Agency (EEA) in creating their environmental policies. Just as the Swedish EPA is an agency for Sweden, the EEA works on behalf of the European Union, and is concerned with educating member states about the state of the environment and coordinating efforts to maintain it (EEA 2014). When it comes to Sweden's own legislation, the Swedish Environmental Code is listed as one of the main influences on the Swedish EPA's policy.

As described in an interview by Helene Lindahl, the Swedish EPA's Wolf Translocation Administrator, in 2009 the Swedish government introduced a new sustainable large carnivore management that aimed to decentralize the management to the county level (interview 2015-01-15). As of 2009, the County Administrative Board (CAB) of each county has been given more responsibility for large carnivore management. And as of spring 2014, all responsibilities for protective hunting of wolves had been delegated to the CABs (idem.). According to Lindahl, the Swedish EPA's role is now mainly to issue guidance in how to interpret Swedish and EU law in these matters and to decide on appealed CAB´s decisions.

3.5.2 County Administrative Boards

While there are many counties to choose from, this thesis mainly uses two counties as examples- Uppsala and Värmland. Uppsala County Administrative Board was accessible for interviewing and discovering the way the County Administrative Boards (länsstyrelse) engage with directives and other stakeholders. Värmland was one of the two counties involved in the 2015 licensed hunt and thus seemed a rich county to explore in terms of wolf management.

There are twenty-one counties in Sweden, each represented by a County Administrative Board (CAB). The County Administrative Board has many different tasks, but its overarching function is to act as a local governing body for each county (Lansstyrelsen n.d.a). The CABs thus adhere to a national standard and govern and make decisions in correlation with the Swedish government. Out of the twenty-one CABs, eight are primarily concerned with managing the wolf population (Lennert Nordvarg, interview 2015-02-05). These counties are in central Sweden and consist of Örebro, Värmland, Dalarna, Uppsala, Stockholm, Västmanland, Götaland and Gävleborg (Länsstyrelsen Uppsala Län 2014: 8). The counties are divided into three administrative sections in terms of predator management (Länsstyrelsen Uppsala Län 2014:8). The central administrative area is where the wolf population is supposed to be contained.

The CAB makes decisions about how many large carnivores should be in their county based on information and directives they receive from the Swedish government or from the Swedish EPA (Lennart Nordvarg interview, 2015-02-05). While Sweden has several large carnivores to manage; lynx, wolverine, bear, golden eagle, and wolf, not all the counties have an equal distribution of these animals. This being the case the management plans for each county are personalized to fit their own unique circumstances, and yet coordinated to maintain the national goal for population numbers.

The current management plans span the period from 2014-2018, so the CAB must take into account future circumstances when creating their goals and strategies. In an interview with Lennart Nordvarg, the director of nature and environment at Uppsala's CAB, he described the process behind creating the CAB management plans. Nordvarg explained that the CABs have to create a management plan that corresponds to the Swedish EPA's national directive and accordingly the CABs must communicate amongst themselves to achieve this. Additionally, Nordvarg said the CABs rely on a Wildlife Management Delegations (Viltförvaltningsdelegationen) to arrive at the optimal numbers for the county. According to Nordvarg, the Wildlife Management Delegation is a varied group of stakeholders in large carnivore management. It consists of NGOs, both for and against high numbers of carnivores, of government-selected politicians, and of CAB representatives. This delegation must work together to arrive at a satisfactory number of carnivores, and each county works with one delegation. The delegation then passes their recommendations by the Swedish EPA who has the final say. (Lennart Nordvarg interview 2015-02-05)

In the spring and autumn of 2014, the Swedish EPA shifted decision making about hunts from themselves to the CABs. In Sweden there are two types of hunts; licensed and protective hunting. Protective hunting licenses are issued to deal with a specific carnivore that repetitively causes damages, while licensed hunts are called in order to mitigate intolerable conflicts between humans and animals (Länsstyrelsen n.d.b). Nordvarg acknowledged that while the EU seems to have zero tolerance for licensed hunts of the Swedish wolf, they allow more room for protective hunting. Nordvarg added that even obtaining a protective hunting license is rare in Sweden, as the CAB must follow EU standards for issuing protective hunting licenses and it is very important to the CAB to follow those criteria. (Interview 2015-02-05)

3.5.3 The Sami Parliament (Sametinget)

The selection of actors is based on their access to the legal system, and their overall influence on decision-making when it comes to wolf hunts in Sweden. As has been explained, the actors tend to fall within three categories: international, state level, and non-governmental agencies with a basis in Sweden. The most obvious outlier is the Sami Parliament. While the Sami Parliament is publically elected, it also functions as a Swedish state authority under the jurisdiction of the Swedish Ministry of Rural Affairs (Samtinget 2014a). In this manner, the Sami parliament describes how it straddles several categories while still striving for more autonomy from the state (idem.). Currently, the Sami Parliament does not receive government directives as other authorities do, and instead relies on the ordinances from the Sami Parliament Act of 1992 (idem.). Sweden does not register ethnicity, but the Sami Parliament estimates there are between 20 000 and 35 000 Sami in Sweden, of which 8000 are registered in the Sami Parliament electoral register (Sametinget 2014b).

As the Sami are indigenous people of the Scandinavian peninsula the Sami Parliament holds a distinct position beyond a government agency or a represented minority. The Sami parliament places great emphasis on self-determination as an indigenous people and on their collective rights (Sametinget 2009). They focus on promoting and protecting the Sami culture and representing Sami interests, including: culture, education, language and reindeer herding (Sametinget 2014a).

The Sami Parliament take an all encompassing view on the environment and as such the environment is an important part of their policy making. In 2009, the Sami Parliament introduced a new program: the Sami Environmental Program. They describe this program as promoting a sustainable Sami culture and life, and closely connect the developments of their culture with the Sami peoples' close relationship with nature (Sametinget 2014c). One of the components the Sami parliament is interested in protecting and promoting is reindeer herding and culture. Part of the Sami Parliament Act dictates that the Sami Parliament will act as a central administrative agency for reindeer herding (Sametinget, 2014a). They describe reindeer herding as a practice rooted in ancient Sami traditions, and the Sami are the only people who have access to the reindeer herding profession (Sametinget 2015a). Their website lists roughly 5000 reindeer herders in Sweden with 2500 people relying on reindeer herding as their primary income (idem.). As of 2015, the Sami Parliament lists between 225 000 and 280 000 reindeer in the winter count (idem).

One of the main concerns of the Sami Parliament when it comes to reindeer herding is climate change. It negatively impacts the grazing areas, and challenges the current methods of reindeer husbandry. In an interview with Stefan Mikaelsson, the chairman of the Sami Parliament Assembly, he listed climate change, industrialization of the forest, and an increasing large predator population as the main factors which threaten the current reindeer husbandry methods (interview 2015-01-22).

The Sami Parliament works under stipulations from the Swedish predator policy, and hence hosts a number of large carnivores in reindeer herding territory. The reindeer herders are offered a separate compensation scheme for their losses to large carnivores from other farmers, forest and land owners, which is administrated through the Sami Parliament with funding from the Swedish government (Sametinget 2015b). In terms of compensation, the wolf is valued more than other large carnivores. If there is a reproducing wolf in a Sami village grazing area the herders are compensated with 500 000 sek. The regular price for a wolf in these areas is 80 000 sek, and if there is an occasional wolf presence it is 35 000 sek (Sametinget 2015b). On their website, the Sami Parliament reference the decision of the

Swedish government that indicates that annually no more than ten percent of the reindeer should become ‘carnivore food’ as important policy (idem).

Currently the nature of reindeer herding involves open spaces and large scale herding. When discussing reindeer herding with Stefan Mikaelsson he described how introducing more carnivores, such as the wolf, into reindeer herding territory would change the nature of reindeer husbandry (interview 2015-01-22). Mikaelsson commented that more wolves would add to many other factors that are changing reindeer herding, and that it would most likely force herders to use corrals (interview 2015-01-22). While the Sami Parliament feel strongly about maintaining the environment and sustainable Sami lifestyle, they are also concerned with protecting the interests and culture of the Sami people, which includes reindeer herding. In this case, the damages inflicted on reindeer herding outweigh the benefits of creating a larger wolf territory in Sweden.

3.5.4 The Swedish Association for Hunting and Wildlife Management

The Swedish Association for Hunting and Wildlife Management (Svenska Jägareförbundet) was founded in 1830, primarily as a way of monitoring and conserving the numbers of disappearing game, such as roe deer and moose (Fredrik Widemo Interview 2015-01-28). Nowadays the organization’s primary goal is listed as “to maintain and develop the hunter’s opportunities for good hunting” (Jägareförbundet 2013). Conserving nature is among one of the organization’s ways to achieve this goal, although the organization is usually primarily associated with the practice of hunting. However, the Swedish Association for Hunting and Wildlife Management (SAHWM) makes an effort to explain to outsiders that their organization is environmentally conscious (idem.).

According to the Swedish Association for Hunting and Wildlife Management’s website, there are around 300, 000 hunters in Sweden, of which nearly 150, 000 are members of their organization (Jägareförbundet 2014a). This makes the Swedish Association for Hunting and Wildlife Management an important and significant stakeholder in large carnivore management in Sweden. What usually puts the Swedish Association for Hunting and Wildlife Management at odds with other nature conservation NGOs is how their approach to maintaining a wolf population includes licensed hunts. While the Swedish Association for Hunting and Wildlife Management believe that large carnivores, including the wolf, are a part of Swedish landscape and natural fauna and should remain as such, they see hunting as a way to manage the population (Jägareförbundet 2014b). This may alienate the organization from other nature conservation NGOs, but it does more or less align them with other groups such as the Federation of Swedish Farmers, the Sami, and forestry owners (Fredrik Widemo Interview 2015-01-28).

In an interview with Fredrik Widemo, Director of Science at the Swedish Association for Hunting and Wildlife Management, he explained how his organization engages with other stakeholders, beginning with the government. While the Swedish Association for Hunting and Wildlife Management is an NGO, they do receive commissions from the government and in this fashion act as an authority might when it comes to their commissioned task. Widemo explained that the organization is often tasked with monitoring game numbers and reporting such findings to the government. This commission makes roughly 25% of the organizations funding. The only time the Swedish Association for Hunting and Wildlife Management has refused a commission since they began this arrangement with the government in 1938 was in 2011, when the first licensed wolf hunt was stopped. The organization thought it best to remain removed from this situation considering the controversy surrounding the animal. (Fredrik Widemo interview 2015-01-28)

When asked how the Swedish Association for Hunting and Wildlife Management engaged with other groups in Sweden who feel the protected status of the wolf is problematic, Widemo suggested that there is a loose collaboration between different stakeholders, but that taking a clear stance on the various effects of the wolf in the past had negatively shifted responsibility and blame to the Swedish Association for Hunting and Wildlife Management. Widemo described how hunters have been perceived as the 'bad guy' when it comes to wolf management and the organization felt it was taking the heat for other groups who were dissatisfied with the situation as well. So today the Swedish Association for Hunting and Wildlife Management is mostly preoccupied with their own organizations' interests, but do communicate and somewhat collaborate with other groups such as Svenska Kennel Klubben and Lantbrukarnas Riksförbund. (Fredrik Widemo interview 2015-01-28)

3.5.5 The Swedish Carnivore Association

The Swedish Carnivore Association (Rovdjursföreningen) is a non for profit organization that works on behalf of predators in the wild (Rovdjur n.d.a). They are one of the pro-wolf NGOs that contributed to formal complaints to the European Commission about Sweden's wolf management, leading to the EC taking steps of pre-litigation against Sweden. While the Swedish Carnivore Association (SCA) headquarters are located in Stockholm, they have regional representatives in many of the counties. The organization gives their views on carnivore managment to many of the previously mentioned actors: the government, the Swedish EPA, and the CABs (Rovdjur n.d.a). SCA share a representative with Naturskyddsföreningen and Sveriges Ornitologiska Förening in each of the Wildlife Management Delegations orchestrated in each county, and they have a representative in the Swedish EPA's 'Carnivore Council' (idem). The organization has roughly 4000 members and sometimes collaborates on certain carnivore issues with other NGOs (such as WWF Sweden and Naturskyddsföreningen) and then preferably on issues of particular overriding importance and interest. (Ann Dahlerus interview 2015-05-03).

SCA promotes the peaceful coexistence of humans and carnivores, and acts as a watchdog when it comes to wildlife management in Sweden. They engage with policy-makers through meetings, hearing, letters, public debates, and also appeal certain hunting decisions (idem.) Maintaining ecological balance is one of the main explanations for why the role of predators is important to the organization, and why Sweden needs to uphold the predators' numbers (Rovdjur n.d.b). SCA is concerned with the consequences on the environment with all the diminishing predator numbers (Rovdjur, n.d.a). Beyond wolves, the organization concerns itself with bears, lynx, and wolverines.

The factors SCA lists as threatening the wolf are; poaching, negative attitudes, inbreeding effects, and extensive legal hunting (Rovdjur n.d.c). While the organization states it is always difficult to tell how many wolves Sweden needs as it depends on many factors, they list 1000+ wolves as a possible number for securing the species long term survival in Sweden (idem). While SCA acknowledges the wolf is not globally endangered, they stress that it is endangered locally and they encourage acting now to preserve the species and not waiting until there is a similar international situation as that surrounding tigers (idem).

3.6 Summarizing the Network

An understanding of decision-making processes regarding the wolf demands a good understanding of the connections and networks between the actors. Here I have explored the organization's role in wolf management, which is also summarized in figure 1. This

information is needed to sufficiently understand the analysis of what the actors' decisions are based on, where they place emphasis, and why.

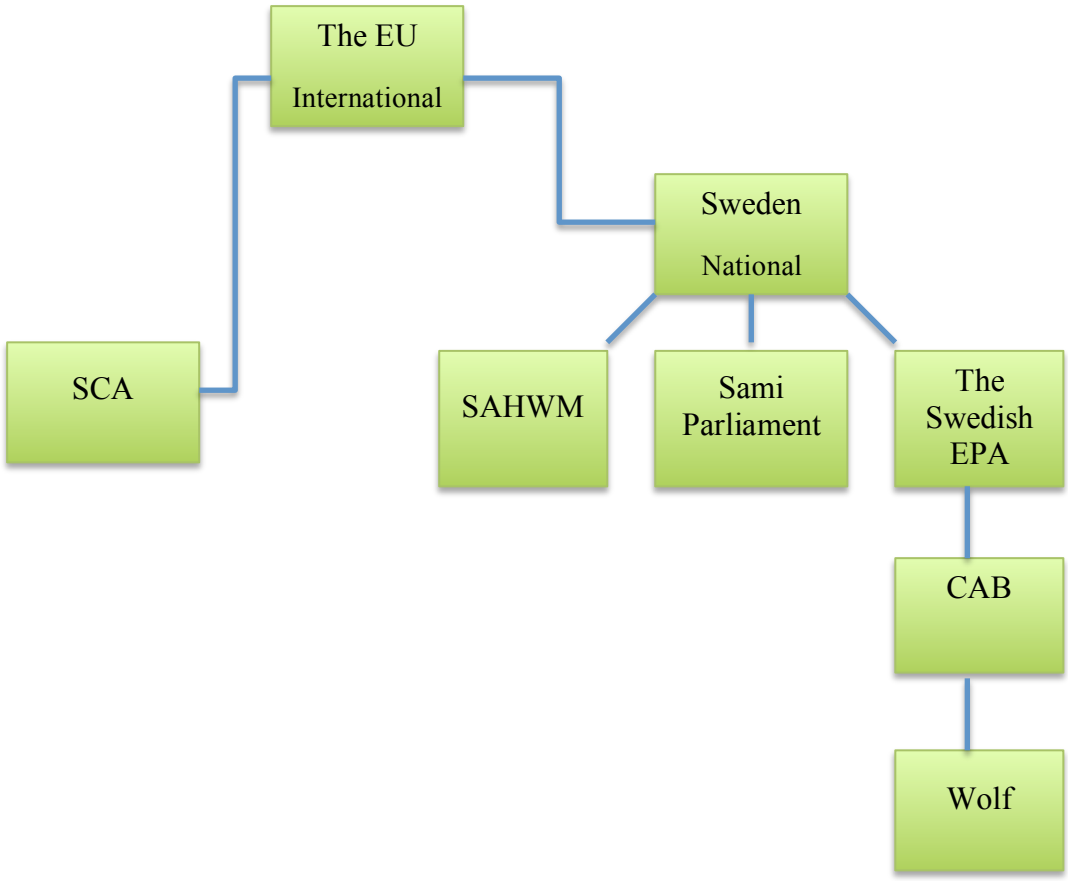

Figure 1: Something Like a Traditional Image

The account of the actors and their relationships presented so far seems to correspond to a hierarchy that is generally expected from a EU framework. The EU impacts Sweden, who in turn directly influences those actors who take official directives from the Swedish government. The Swedish Association for Carnivores, however, does not act as an official authority for the government, and instead is connected directly to the EU. The actor who makes initial decisions about wolf management through the use of hunting is the County Administration Board. As can be seen, the CAB is actually the actor most closely connected to the wolf as they now have the power to make decisions about licenced and protective hunting. While the actors were initially grouped into sections based on international, national, and non-governmental agencies, the categorizations are quite malleable and the actors take on different roles and create different networks amongst themselves, at times blurring the distinctions.

Chapter 4: The Wolf as a Villain

Before turning to specific aspects of the actors' wolf management approaches, it is important to address one of the easiest answers to give in response to the question: "why is the management of the wolf so conflicted?" It is not uncommon for people to make assumptions about why the wolf is difficult to manage based on the idea that the wolf is just a controversial animal, going back to folklore and mythology. While the wolf is a controversial animal compared to many, it is still important to critically assess and contextualize its impact on local populations beyond dismissing the animal as simply frightening. This has led to significant research delving into the historical impact of the wolf in Sweden, and different perceptions and attitudes to the animal. While there are patterns and behaviours that confirm stereotypical responses to the wolf, there has also been research that complicates the previously held views. The perceived polarization of the wolf occurs on levels beyond that of official stakeholders as it is also intimately connected to local populations. Indeed, the most common understanding of the polarization over the wolf is between rural and urban populations. This begs the question: Is the answer to why the wolf is so difficult to manage simply found in its controversial status as an animal?

Of course, much of the controversy surrounding the wolf seems to stem from fear. Studies interested in the root of wolf fear, such as the study by Anna Dahlström and Örjan Kardell (2013) show that agriculturally based societies generally develop a more hateful relationship towards the wolf than hunter-gatherers. As in other cultures where the wolf came to represent darkness and evil, one of the names for the wolf in Sweden was Hålehund, dog of the devil (Kardell 2008). Scholars interested in whether contemporary Swedish feelings of the wolf root themselves in earlier events have managed to find ways of interpreting the little existing data.

With help from parish records, bounty registers, and local archives the damage done by wolves to livestock and humans has been unearthed to some extent, allowing historians to investigate the basis for the fear of wolves. The historian Pousette (2000) has intensively studied wolf attacks in Sweden during the years 1820-1821. Pousette's research shows that wolf attacks did occur before they were driven to extinction, with children and women most often being targeted (Pousette 2000). However, as researchers at Norsk Institutt for Natursforskning (NINA) state, the status of the wolf makes looking into the history of wolf attacks difficult, as human error and exaggeration often times disrupt data (Linnel *et al.* 2002).

While difficult to assess, it has been proven that historically attacks by non-rabid wolves have been very rare (idem). Studies have been gradually moving away from the carnivore versus livestock conflict and instead focus on the dimension of human fear when it comes to wolves (Linnel *et al.* 2002; Linnell *et al.* 2003). With this sudden preoccupation with the psychological dimension of the wolf conflict, studies examining precisely who felt fear and for what reasons, arose.

While there are certain general understandings of the divide between the public when it comes to wolves, studies such as the one by Göran Ericsson and Thomas A. Heberlain (2003) reject these stereotypes. By thoroughly reviewing literature and results from attitude surveys about hunting, they found the assumption that hunters felt negatively towards

wolves was often challenged, and that there was inconclusive evidence that more knowledge of the animal corresponded with a positive outlook. In fact, after conducting a mail survey, Heberlain and Ericsson (2003) discovered that the majority of Swedes felt neutral to the wolf's status in 2000-2001. Instead, two small groups representing the extremes energize the polarization of the wolf issue (Eriksson 2013). This is not to suggest that the fear of wolves, or concerns over their impact on personal economies and pastimes do not warrant investigation of their own. I agree with the conclusion from NINA's report (Linnel *et al.* 2003: 31) that "perhaps most importantly, this review of historical events has indicated that it is vital to take the beliefs and fears of people seriously when developing conservation information strategies." This thesis, however, can only treat individual beliefs' and fears as far as the actors do. As this research rests on an institutional level, for this thesis I am only concerned with the individual if the actors consider the individual's wants, needs, and fears while managing the animal.

I simply wish to outline that while the wolf has indeed been historically considered a controversial animal, associated with villains and evil, it is possible the modern day controversy surrounding the animal does not necessarily find its root in local hatred. It would be easy to see the conflict between the EU and the Swedish state as a conflict caused by the nature of democracies. The Swedish state does not want to alienate its electorate base, and thus must pander to those individuals or organizations that do not tolerate the wolf. Well, perhaps. But if these studies examining attitudes to wolves show anything, it is that an investigation beyond this theory merits a look.

Knowing there are parallel investigations looking into many other dimensions of the wolf dilemma in Sweden, my study moves forward making no assumptions about the individual's reaction and response to the wolf. Instead of assuming the root of the conflict lies in the controversial image of the animal, I will allow the actors to develop their networks based on how they practice wolf management, and in doing so, illustrate another dimension of the Swedish wolf dilemma beyond the animal's controversial image. The following chapters examine the most common factors and issues the actors engage with in wolf management.

Chapter 5: The Wolf as a Number

Now that the actors and wider research about the wolf has been introduced it is time to revisit the initial point of departure: the conflict and polarization over wolf management. The knot this thesis revolves around is the legal juncture between the EU and the Swedish state over Sweden's decision to have licensed hunts. This legal knot between them can be tied back to what initially caught my interest with this topic; the differing recommended population numbers. Examining the concrete differences between the actors' recommended population numbers will lead us to the next step in the analysis.[3] This chapter illustrates the numerical dilemma revolving around how many wolves Sweden *should* host.

None of the actors involved in this study suggest Sweden should eliminate the wolf. Instead, what usually divides them is the matter of the actual number of wolves, and/or where in Sweden this wolf population should reside. Polarization of wolf management suggests two extreme ends, but instead this chapter illustrates the beginnings of a gradient in management. This chapter starts with looking at the recommended population levels for the various actors and extends the differing recommended populations into the fractionality of science.

The EU	See Habitats Directive article 1 in following paragraph.
The Swedish EPA	270 (SEPA 2013a)
Värmland CAB	10% of national population (Länsstyrelsen Värmland Län 2014: 9)
Sami Parliament	Uninterested in having wolves in reindeer herding territory (Mikaelsson interview 2015-01-20)
Swedish Association for Hunting and Wildlife Management	150 (Jägareförbundet 2014b)
Swedish Carnivore Association	1000+ wolves (rovdjur n.d.c: para 17)

Table 1: Recommended Population Levels for Wolves in Sweden

When it comes to managing biodiversity in the EU it is generally assumed authorities are interested in securing Favourable Conservation Status for as many species as possible. Favourable Conservation Status (FCS), Favourable Reference Values (FRV) and Minimum Viable Population (MVP) are all closely intertwined. All these terms can be found in different articles of the EU's Habitats Directive, and thus influence Swedish carnivore management as a portion of a legally binding treaty. The Habitats Directive considers Favourable Conservation Status to indicate that the species in question is:

[3] The recommended populations are based on management decisions made in winter 2013/2014, as data for the most recent winter population is not yet available.

> "maintaining itself on a long term basis as a viable component of its natural habitat, and the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and there is, and will probably continue to be, a sufficiently large habitat to maintain its population on a long-term basis" (HD article 1).

In accordance with this definition, FCS is thought to be the ideal status for animals within the EU. To reach FCS it is important to obtain good Favourable Reference Values. Favourable Reference Values concern a specific species and examining its Favourable Reference Range (FRR) and Favourable Reference Population (FRP). Both these reference points must be at values equal to or higher than when the directive first came into force. Finally, the Minimum Viable Population is the number at which a species can exist without going extinct, but it is primarily supposed to be used as a tool to investigate extinction probabilities, and not as a goal population level. MVP is calculated using Population Viability Analysis, which does not adhere to a set list of variables (LCIE 2008). Nor does MVP take into account unpredictable changes such as climate change or disease, and as such the EU prefers that the FRP be higher than the MVP to ensure the populations long-term chances of survival (EC 2015a). This partly explains how MVP can defer from actor to actor.

The different actors do not all use the same terms when discussing their target population wishes, but considering the tensions surrounding the animal, they all believe themselves to be suggesting the most rational population number. The EU, the Swedish EPA and CABs all use MVP to discuss their recommended population, although they generally use MVP to recommend a population higher than the MVP in order to ensure a margin for error. Despite sometimes not referring specifically to the same terminology, all the actors rely on similar scientific conclusions and reports to make management decisions. Still, that the recommended population numbers differ between actors does not come as too much of a surprise. Most of the actors readily point to the indecisiveness of the scientific community when it comes to establishing target numbers. Indeed, the EU's *Guideline for Population Level Management Plans for Large Carnivores* spends two pages just establishing their definition for the term 'population' as the term lacks a universal definition. As for how the term is usually established they write, "In the absence of any generally accepted definitions, researchers and managers have usually defined their own ad hoc borders to suit their particular situation" (Linnel *et al.* 2008:7). As finding a universally understood definition for population is an issue, the fact that scientists are not agreed on which models, time frames, or variables to use when finding a target population should follow in the same logic.

Within a short amount of time it becomes very clear that different priorities for the actors shape how they interpret the scientific research behind recommended population sizes. The Swedish Carnivore Association states decisions made about wolf population size should be based on results from careful scientific calculations which place emphasis on findings from population geneticist as SCA are concerned about the Swedish wolf's fragile genetic history (Ann Dahlerus interview 15-03-05). The Swedish Association of Hunting and Wildlife Management points to similar biological evidence, including population geneticists, as legitimization of their decisions about population size being much smaller than other actors' recommended population (Fredrik Widemo interview 15-01-28). The Sami Parliament examines the issue of wolf numbers in Sami territory more holistically, placing emphasis on different existing levels of ecological damage to the terrain (Stefan Mikaelsson interview 15-01-22). Helene Lindahl, from the Swedish EPA, and Lennart Nordvarg from Uppsala CAB, both spoke more broadly of 'science' when it comes to wolf research and of the findings from different groups of scientists (Lindahl interview 2015-01-15; Nordvarg

interview 2015-02-05). The amount of wolves and which evidence to look at varies depending on what the actors are primarily interested in sustaining. The Swedish Carnivore Association is primarily concerned about the wolf's long-term survival, while the Swedish Association for Hunting and Wildlife Management main aim is to "maintain and develop the hunter's opportunities for good hunting" (Jägareförbundet 2013). The Sami Parliament is primarily concerned with sustaining Sami culture, which includes reindeer herding, and the Swedish EPA and CABs must prioritize behaving in accordance with larger national biodiversity goals. While many of the actors rely on the same scientific reports and findings, their recommended population numbers for wolves varies significantly.

As has been stated earlier, this thesis is not aiming to show the fractionality of science, or how it is used or disregarded when it comes to deciding population numbers for large carnivore management. Instead, this thesis works within the idea of the fractionality of science, which has already been established by many academics, outside of and within natural science (Mol 2002; Jasanoff 2007). Knowing science is fractional; my next step is to investigate what influences the actions, decisions, and practices of the actors. While differing in scientific justification for their management recommendations, all the actors I've chosen accept to differing degrees that Sweden should have a wolf population. Now the task remains to investigate whether the issue is about, in the words of Fredrik Widemo, "quantitate and not qualitative differences" (interview 15-01-28).

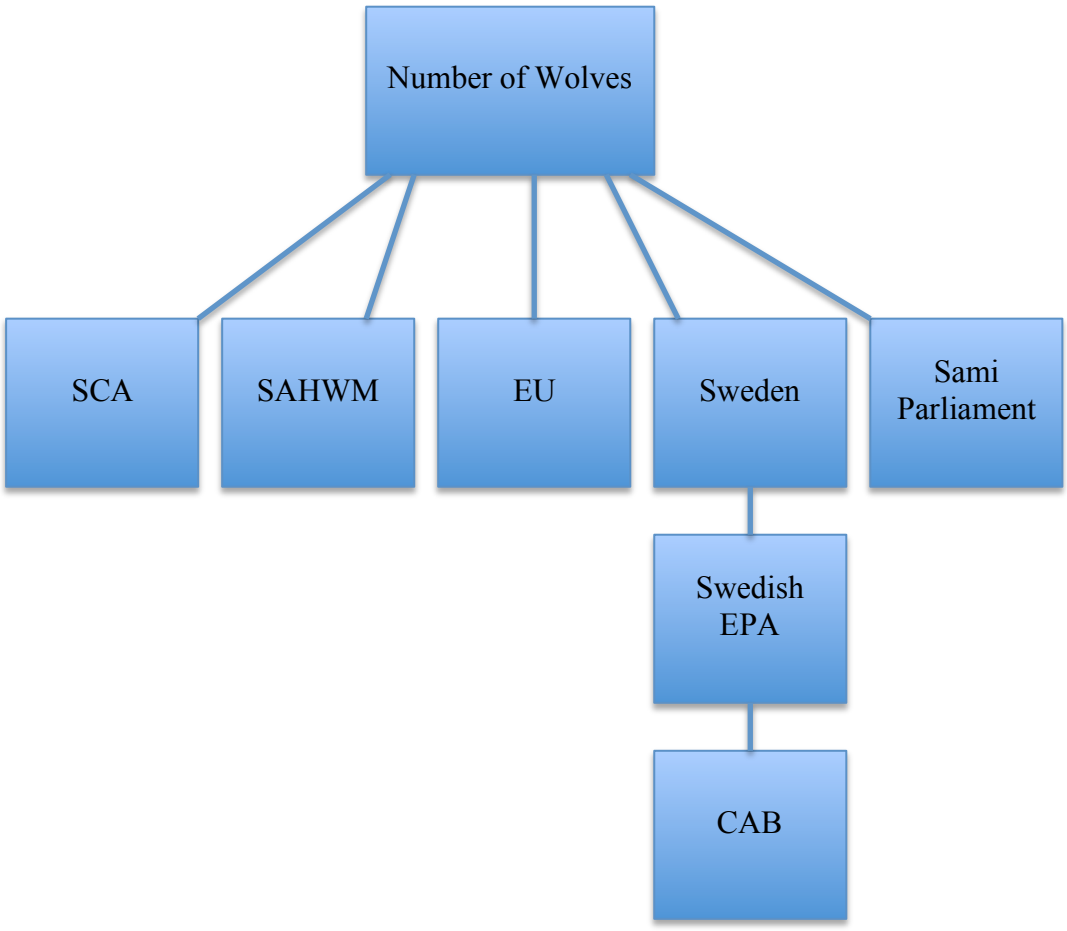

Figure 2: Actors' Connection to the Amount of Wolves in Sweden

Before moving on to the next chapter there is once again a diagram illustrating connections and networks between actors. This is in an attempt to illustrate the fluidity of both the actors and networks. Figure 2 shows how the actors and their potential networks have shifted from

the earlier flowchart. At this point, actors who have roles both as NGOs and government authorities have their own connection to the amount of wolves in Sweden. They no longer necessarily have to channel their own population recommendations through the state sanctioned number. The Swedish Carnivore Association, the Swedish Association for Hunting and Wildlife Management, and the Sami Parliament are just as concerned with a specific recommended population number as Sweden and the EU. The Swedish EPA and the CABs are the only actors who still need to fit their management plans together with Sweden's recommended population.

Chapter 6: Factors Preventing Favourable Conservation Status

While the differing recommended population numbers and the science they are based on helped illustrate the fractionality of science, it also aided us in beginning the transition of seeing these actors on a management spectrum rather than as simply divided. To extend this image we turn to the major factors the actors see as preventing Favourable Conservation Status. As opposed to purely seeing one organization or the other as obstructing the wolf's chances at viability, the actors more often than not reflect on many variables. The physical dimension of the peninsula, the wolf population density, the national borders, genetic instability, and most importantly the political nature of the wolf issue came up again and again. The wolf in this sense begins to take on many dimensions, and the following section will outline the connections between the actors in terms of perceived management obstacles. While perhaps these factors can be considered simply as problems for management, I hope they also illustrate the different manifestations of the wolf.

While the wolf can be thought of as an animal, it can more specifically be considered a carnivore, or a large carnivore at that. It can also be measured as a biological entity, in which inbreeding, disease, and physical deformations take place. It can be thought of as a threat to livelihood and culture, or a tool from which to establish international relations. It can also be used as a means for education, or as political leverage come election. The different ways in which the wolf manifests itself to the actors can help explain the conflict in which they are all entangled. This chapter and the following one, which examines major divergences, help us to more thoroughly examine the question: What *is* the wolf?

6.1 Genetic Instability

One of the issues that resurfaced for all of the actors when explaining wolf population management is the wolf's genetic instability. The actors were either worried about the impact of poor genetics on the current wolf population, or concerned about how they were expected to accommodate this perceived fragility of the wolves.

For the Swedish Carnivore Association there are no perquisites for licensed hunts of wolves as long as the genetic situation of the wolf population remains unsolved. (Ann Dahlerus Interview 2015-03-05). The Swedish Association for Hunting and Wildlife Management base their recommended wolf population on a report from a 2002 scientific summit that included geneticists and subsequent reports from scientific committees and SKANDULV, so as not to ignore the importance of the wolves' genetic vulnerabilities (Fredrik Widemo Correspondence 2015-05-19). In general, the hunting organization considers the inbreeding history of the Swedish wolf as a negative consequence of having such an isolated population (idem). The Swedish EPA also places weight on how the genetic state of the wolf population impacts management strategies. Helene Lindahl commented on the relation between wolf numbers and genetics, stating the more poorly the wolf's genetic state; the larger the population needs to be (Lindahl interview 2015-01-15). Värmlands CAB management plan takes the issue back to the first founding wolves, and stresses the need for new genes either from migration or other means (Länsstyrelsen Värmland Län 2014a). The

publication funded by the European Commission concerning viable populations, points to the uncertainty when it comes to genetic viability and demographic viability (Linnel *et al.* 2008). And finally, the Sami Parliament comment on the tension between bolstering genetics of the wolf population at the expense of the Sami's livelihood and culture (Sametinget 2012). In one way or another the genetics of the Swedish wolf comes up in terms of influences and strategies for current management. Generally, all the actors consider the overall genetic state of the wolf an important factor to consider when establishing a viable population and remark on the need for migration.

Of course, the fact that the actors all theoretically understand the consequences of poor genetics on a population does not always translate to the same series of actions. It has been argued by Guillaume Chapron, an associate professor at the Swedish University of Agricultural Sciences, that his scientific findings were actually manipulated by the Swedish state to justify their actions and wolf hunts (Chapron 2014). Sometimes science reveals multiple truths and sometimes scientific findings can be outright manipulated. But understanding science's multiple lenses still does not shed much light on is why there is a conflict between these actors, especially as the conflict pivots around the EU and the Swedish State, two actors who have constructed images of themselves as caring for the environment, and more specifically, biodiversity.

6.2 Physical Confinement of the Peninsula

In connection with concerns surrounding the genetic viability of the wolves, many of the actors also comment on the complications of hosting a healthy wolf population on the peninsula, considering it is divided between Norway and Sweden. This is a reality that many stakeholders and scientists have been straightforward about since early investigations into a Scandinavian wolf revival began in the late 1990s. A report funded by the Swedish EPA in 2002, "Genetic Aspects of Viability in Small Wolf Populations" highlighted that the most pressing issue for the species future was their genetic state, but also concluded that the Scandinavian peninsula is too small to host a long term viable wolf population of its own (Liberg 2002). A later study on wolf conservation and genetics by the Swedish University of Agricultural Sciences from 2011 also noted a main priority to secure the wolf's future viability should be transnational collaboration between Sweden, Norway, Finland and Russia (Hansen *et al.* 2011). As a final example, a 2012 study by the department of zoology at Stockholm University states that to reach Favourable Conservation Status there would have to be a well connected, large wolf population over Scandinavia (Laikre *et al.* 2012). These reports did not agree on effective population sizes (Ne) but in the very least all considered fluidity between different nation states as important in creating viable wolf populations.

Similarly to these scientific investigations, many of the actors are also aware of the limitations created by national borders and separate national nature conservation policies and laws. While Sweden is supposed to work under the umbrella of EU nature conservation policies and laws, Norway, on the other hand, is not a member of the EU. As an organization the Swedish EPA has both multilateral and bilateral agreements and in terms of the Swedish EPA's bilateral agreements when it comes to the Swedish wolf, Norway, Finland, and Russia are considered to be vitally important to sustaining a wolf population in the Scandinavian peninsula (Helene Lindahl interview 2015-01-15). The Swedish EPA have a good relationship with Norway when it comes to the wolf population, and in 2015 they are hoping to focus more on establishing a relationship with Russia to aid the movement of Russian wolves westward (idem.). The Swedish Association for Hunting and Wildlife Management envision the wolf population as a Scandinavian population more than a

Swedish one. However, they do not have influence over how wolves are handled in Norway. The SCA thinks migration from Finland and Russia is crucial for improving the genetic viability of the current population, but see this migration facing obstacles, from outside and within Sweden. The CABs try and cooperate with Norway in terms of wolf management, and use the same methods for tracking carnivores as their western neighbours (Nordvarg interview 2015-02-05). For many of the actors an important factor in establishing a healthy wolf population in Sweden is the building and maintenance of good relations and similar goals with the surrounding nation states.

6.3 Issue of Wolf Density

While international cooperation is an important factor in wolf management, so is having a cohesive national Swedish goal. One of the more dominant concerns for many of the actors is the physical dimension of Sweden and spacing. The CABs, the Swedish Carnivore Association, the Swedish Association for Hunting and Wildlife Management, and the Swedish EPA all see the sheer density of the current wolf population as a large obstacle in properly managing them. As of now, most of the wolf population is located in western central Sweden, and this causes issues for the inhabitants of the area.

Lennart Nordvarg from Uppsala CAB described how one of the most difficult aspects of managing the wolf population is handling the current population density (interview 15-02-05). The CAB must adhere to national expectations for the number of wolves Sweden should maintain. The separate CABs coordinate their management plans to meet this national level and simultaneously attempt to satisfy a number of different stakeholders by engaging actors in the WLD meetings. In the Autumn of 2013, the population decided upon by the Swedish Parliament and the Swedish EPA was roughly 270 wolves (SEPA 2013a). The eight counties most preoccupied with wolf management created their long-term management plans, in which counties such as Uppsala, which currently does not have a resident wolf population, was willing to accommodate up to two reproducing packs of wolves in the coming years. However, that also meant that counties that have a wolf population, such as Värmland, could reduce their current populations, as Uppsala would accommodate the loss nationally. This form of management plan, which attempts to decrease the overall density of the population while maintaining its numbers, is not approved by the Swedish EPA.

As for the Swedish Association for Hunting and Wildlife Management, Fredrik Widemo also described the difficulties the population density of the wolves in Sweden presents. The population that the Swedish Association for Hunting and Wildlife Management subscribe to is having 150 wolves in Sweden (Jägareförbundet 2014b). However, Widemo added that the organization thinks there should be 200 wolves in total in the Scandinavian peninsula (interview 2015-01-28). This translates to 150 wolves in Sweden and 50 in Norway. The organization does not have any say as to how Norway should manage their wolf population, but feel 50 wolves in Norway would mean Norway takes responsibility for their territory (Widemo interview 2015-01-28). As for how the wolves should be distributed in Sweden, Widemo indicated that his organization actually has a fairly progressive suggestion, as they want all counties to take responsibility for a maximum of one or two reproducing packs, although in total the number should not exceed 150 (interview 2015-01-28). Thus some counties might be without wolves but no counties are automatically exempt apart from Gotland (idem). This would lower the density of the wolves considerably, but it would also mean pushing the population into reindeer herding areas and to southern Sweden where sheep herding is an important industry (idem).Widemo described how from his

organization's perspective, the wolf is purposefully contained in a few counties now, and that official actions and policy do not coincide. Widemo (interview 2015-01-28) explained:

> "as soon as they move outside the area where they move out now, you get permission to shoot them. Even though politically it is claimed that they want them to spread. But as soon as they do spread they create problems, and they are shot. So effectively you will only have this strip where the wolf density is increasing. And of course the people there are extremely upset that they have to carry the burden."

Widemo went on to add that while the Swedish Association for Hunting and Wildlife Management suggests Sweden spreads out the wolf population among the counties, they have at times become internally unpopular in the wolf-free counties for stating so (interview 2015-01-28). Despite this, there is a consensus that all counties need to take their responsibility and share the burden (idem). The central idea that the wolf is a native species that should exist in Sweden motivates the organization despite this stance sometimes being perceived as unpopular by some of their members.

The Swedish Carnivore Association is also unsatisfied with the present day wolf distribution. They consider the current distribution to be an unnatural manipulation of the species, and damaging to the long-term viability of the wolf. When asked about the density of the population, SCA's secretary general Ann Dahlerus (Dahlerus written correspondence 15-05-18) said:

> "Animals should choose where to establish their own territories. However, and this is important, we do recognize that they can be managed differently in different parts of the country depending on the density and risk for livestock. For instance we do not object to protective hunting when the situation calls for it in cases of livestock depredation."

Similarly to the Swedish Association for Hunting and Wildlife Management, SCA thinks the current territory for the wolf population has been decided by the Swedish state, and has little to do with how the wolf would distribute itself naturally (Dahlerus interview 15-03-05). For the SCA, restricting the behaviour of the wolf is unacceptable as it goes against the animals' natural behaviour when it comes to spreading and establishing themselves. Considering the other actors perception of how the wolf is managed by the state, interestingly the Swedish EPA also thinks the wolf should be treated as a wild animal and be free to roam where it wants. In an interview with Helene Lindahl from the Swedish EPA, she reacted negatively to the idea of collaring the wolf population with GPS locators. When asked if it would make it easier to manage if the whereabouts of the wolves where known she responded (interview 2015-01-15):

> "No, and we don't want to know. Because then they are not wild animals… Obviously wolves that we've decided we are going to translocate, we have to have GPS in order to follow up and see what happens after, but then we take them off, you can do that with distance, get them to fall off".

She continued to say that while there are certain circumstances where it is necessary to collar the animals, such as research done by SKANDULV, they minimize the amount of animals collared. Lindahl stated that it is usually only a handful, around five or six animals and that the Swedish EPA thinks there should continue to be a limited amount of wolves collared. (interview 2015-01-15)

The reasoning behind the actors concerns differs. For the CAB and the Swedish Association for Hunting and Wildlife Management it is primarily about decreasing the burden on local communities. For the Swedish EPA and the Swedish Carnivore Association their concerns about density are also linked to their concerns about altering the natural behaviour of the animal by restricting its natural movements. However, the issue of population density remains at the forefront of all these actors concerns. The Sami Parliament is an anomaly from the other actors in this instance. They do not engage as much with where the current wolf population is thought to be densest, instead they are mostly preoccupied with navigating potential encroachments into reindeer herding territory.

6.4 The Politicized Wolf

In addition to their poor genetics, lack of migration, and increasing population density, many of the actors agree that much of the conflict surrounding wolf management is a result of how highly politicized the issue is. The wolf is usually treated differently than other carnivores by the actors, which some find to be part of the larger difficulty of managing the animal as it contributes to its political nature. Uppsala's CAB, the Swedish EPA, the Swedish Carnivore Association, the Sametinget and the Swedish Association for Hunting and Wildlife Management all mentioned in some way the special status the wolf is given in their organizations. Helene Lindahl from the Swedish EPA explained that she responds to three higher ups: the head of the section, the head of the department, and then the director general. For other carnivores surrounded with less controversy decisions could be made at Lindahl's level, but because of the political electricity of the wolf issue she described how the decision usually goes straight to the director general (Helene Lindahl interview 2015-01-15). Lennart Nordvarg from Uppsala CAB echoed Swedish EPA representative Helene Lindahl, when he commented about the disproportionate amount of resources that go into tracking wolves over other carnivores, illustrating once again the special status of the wolf (interview 2015-02-05). The Swedish Association for Hunting and Wildlife Management struggles with the controversy the wolf generates in terms of maintaining members (Widemo interview 2015-01-25). The wolf policy must be acceptable to the members, while at the same time ensuring acceptance from society to hunters and hunting in general (idem). As mentioned earlier, the organization's conviction that Sweden should host a wolf population can alienate the Swedish Association for Hunting and Wildlife Management from members who feel otherwise, at times losing their members to more radical hunting organizations (idem). Ann Dahlerus, the secretary general of SCA, spends a disproportionate amount of time dealing with the Swedish wolf over all the other carnivores her organization is invested in (Dahlerus 2015-03-05). The Sami Parliament feel their freedoms and heritage are juxtaposed against creating a viable wolf population by many other actors (Sametinget 2012). The highly politicized status of the wolf usually gives it a special position among the actors' large carnivore management plans and strategies. Most of the actors admit that managing the wolf would be much easier if they could only treat the animal as they did other carnivores.

But where does this politicized nature of the wolf come from? So far all that has been illustrated is the similarities many of the actors share when they consider the properties of wolf management. The next chapter explores the most obvious divergences between them, which will hopefully give more dimension to the animal in its multiplicity of truths.

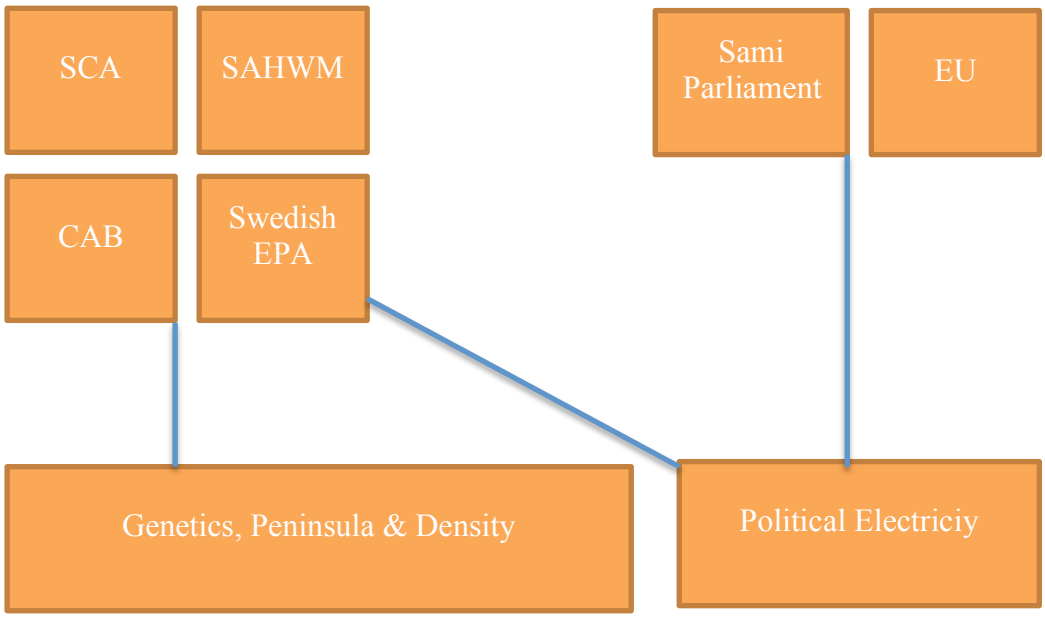

Figure 3: The actors and different interest.

To once again illustrate the possibility for concrete connections and visible networks I turn to figure 3. Figure 3 shows how actors have associated to each other through similar concerns over wolf management. While all the actors are concerned about the political nature of the wolf, the Swedish Carnivore Association, the Swedish Association for Hunting and Wildlife Management, the CAB and the Swedish EPA, were more concerned with other specific obstacles in wolf management. Most importantly the different manner actors can build networks between themselves, which can continue to vary from issue to issue, help us take another step back from simply seeing this issue as being polarized between 'hunting organizations and environmental NGOs'.

Chapter 7: The Wolf as Controversy

This thesis circles around many themes, including the extreme controversy surrounding the wolf. So far we have seen that these actors are caught in a quarrel over how many wolves Sweden should host, that they sometimes depend on different scientific evidence, and that there are a handful of factors most of the actors take into consideration when it comes to the wolf population's viability. The actors agree and disagree with different stakeholders to different degrees dependent on the issue and this chapter explores the major divergences between many of the actors when it comes to the wolf dilemma. While divergences can perhaps most easily be seen as points where polarization may occur, divergences also offer opportunities to build networks.

7.1 The Sami

One of the tensest issues in establishing a wolf population in Sweden revolves around reindeer herding and the Sami people. It was commented from my colleagues that perhaps this section would be more aptly named "indigenous rights, or reindeer herding" as that would be closer to the actual complication the actors' face in wolf management. That may be the case, but the manner in which these complications were referred to by the different actors was more often than not summed up as complications with 'the Sami. The Sami are intimately linked to reindeer herding in Sweden, but I am not trying to suggest that to be Sami is to be a reindeer herder, instead I am outlining the issue as it has been represented to me by the different actors .The Sami Parliament is one of the actors in this study as they act as an authority and government. In some media representation of the wolf debate 'The Sami' not specifically the Sami Parliament is referred to simply as an obstacle in establishing a healthy wolf population. But as I will show here, this is a simplified version of a very complex situation. To this extent the Sami and the Sami Parliament are not interchangeable entities in this chapter as one is an actor in this study and the other a vague term other actors rely on. As I will show, the manner the Sami are often referred to by actors occupies two positions in this debate: as an obstacle, and/or as a potential partner in wolf management.

The Swedish EPA refers to the Sami as a potential partner in establishing a healthy wolf population as opposed to just another factor to contend with. When asked about the Sami's role in wolf management Helene Lindahl commented (interview 2015-01-15):

> "they are very important, but up to now, they've said no wolves, there cannot be any wolves, and you have to respect that, but we think there is room for discussion, we think we have reasons to believe we have common goals and there are possibilities. We think it is very important not to decide what to do, but want to come to them with open hands, and try and find a way together, how can we go about, what can we do? Can we try somewhere? Try and see what can be done?"

Lindahl added specifically that it was becoming a priority in 2015 to open up more avenues of discussion with the Sami in terms of potential wolf management strategies. Those actors that referred to the Sami more or less as another component to consider when creating wolf

management strategies and less as a potential actor to engage with seemed to do so more out of respect for their territorial claims and heritage than anything else. In a discussion with Lennart Nordvarg from Uppsala CAB he said (interview 2015-02-05):

> "we also understand we have obligations for the Sami people, but this is not really our concern, it is the government who made the decision. We have to follow their instructions. And in the south it is, it is not that restricted I think there. It might be possible to have wolves in the south, there are not Sami people there with that culture, but instead you have in theory a lot of problems with wolves hunting sheep."

In their role as a county level governing body, the CABs keep in line with the larger national picture, which includes obligations to the Sami people. The Swedish Association for Hunting and Wildlife Management, on the other hand, are not as confined by government initiatives in the same sense. They sympathize with the Sami's dilemma over wolves in reindeer herding territory, and loosely collaborate with the Sami on some issues (Fredrik Widemo interview 2015-01-20). The Swedish Carnivore Association also acknowledges the rights of the Sami people. However, the SCA believes that more could be done on behalf of both reindeer herders and authorities in order to provide tools for some sort of coexistence between reindeer herding and wolves. For the SCA one of the main issues is as the situation is today the Sami reindeer herding territory prevents the free movement of wolves from eastern populations (Ann Dahlerus interview 2015-03-05).

The Sami Parliament has clear motivations for minimizing the predators in Sami territory. The EU, however, has concerned itself both with maintaining continental levels of biodiversity and of ensuring the self-determination of indigenous people. Under the EU's policy on indigenous peoples, they write that they base their support for indigenous rights on the UN Declaration of the Rights of Indigenous Peoples (EEAS 2014). More specifically the EU (idem) states:

> "The EU supports indigenous peoples' rights to, inter alia, culture, identity, language, employment, lands and territories, health, education as well as their rights to maintain and strengthen their own institutions, cultures and traditions, and to pursue their development in keeping with their own needs and aspirations."

While perhaps an obvious dilemma to outline, the EU has obligations both to biodiversity and to indigenous peoples. This leads to the issue of identity that surfaces in regards to the Sami and their wishes to minimize damages to reindeer herding. While the Sami have been officially treated as an indigenous people since 1977, rhetoric surrounding their rights does not always reflect this.

In an interview with an interested party in wolf management, the Sami were more often than not referred to simply as an 'ethnic minority'. This confusion over the Sami as not specifically indigenous can possibly be traced to before 1977, as before then the Sami were simply considered a minority group (Queen's University n.d). Researchers such as Rebecca Lawrence at Stockholm's University go much deeper into this issue of Sami identity, especially connected to resource management. In one of her articles on internal colonization and resource use, Lawrence writes (2014:1039) " the Nordic states may be regarded (and regard themselves) as leaders in international human rights, yet the issue of Sami rights remains fundamentally unresolved in Scandinavia." Sweden may have recently changed its perspective on the Sami and their status, but the overall acceptance of the Sami as an indigenous people is not always entirely clear. Despite this, some of the actors such as: the

Swedish EPA and the CABs, either clearly state, or show strong signs of accepting the Sami as indigenous. As was illustrated earlier, most of the actors agree migration from other wolf populations would improve the current Swedish wolf population's long term viability, thus the Sami reindeer herding territory and its protected status come up often.

7.2 Human/Wolf Conflict and Local Acceptance

At this point the issue of the individual's reaction to the wolf and the individual's impact abstractly arises. Most of the actors agree that local acceptance is important in terms of facilitating a successful management of the wolf. Acceptance is associated with minimizing conflicts between humans and wolves, and knowledge is often considered to be a tool in gaining acceptance. As remarked on earlier in the thesis (chapter three) the EU concerns itself with garnering acceptance of the wolf through platforms such as the Coexistence Between People and Large Carnivores. Their joint mission states that they intend (EC 2015):

> "To promote ways and means to minimize, and wherever possible find solutions to, conflicts between human interests and the presence of large carnivore species, by exchanging knowledge and by working together in an open-ended, constructive and mutually respectful way."

While the platform is concerned about human interests, exchange of knowledge, and collaboration, the signatories of the platform are large organizations such as: WWF European Policy Office, EUROPARC Federation, and the European Landowner's Organization. The stakeholders in this instance are still largely international organizations, which hopefully in turn facilitate a dialogue with local people in their area. But beyond large visionary collaborative platforms to minimize conflict between human interests and carnivores, some of the other actors interact and are concerned not only with organizations, but also directly with local populations.

Both the Swedish EPA and the Swedish Association for Hunting and Wildlife Management are invested in local acceptance of the wolf. However, the point of contention between them is over which method promotes local acceptance. The Swedish EPA and the Swedish Association for Hunting and Wildlife Management do not see eye to eye on this issue. They are torn over the idea that education is a successful way to secure local acceptance. In terms of educating the public, The Swedish EPA funds institutions such as Viltskadecenter in an attempt to educate more people about the wolf. Helene Lindahl commented that (interview 2015-01-15):

> "information is very important. The discussion of the wolf is lacking of the facts, obviously we follow a lot of what the press has written on the wolf, and most of it is a lot of misunderstandings."

In particular, Lindahl notes that educating children is considered an important step to facilitating acceptance of the wolf. The Swedish Association for Hunting and Wildlife Management on the other hand, feel education is not the answer to gaining acceptance. In an interview with Fredrik Widemo he responded that (interview 2015-01-25):

> "There is no evidence in Sweden, or as far as I know elsewhere, on being able to educate people to accept wolves."

Widemo elaborated that in the past the only way to facilitate acceptance of large carnivores, such as the brown bear, was to allow people to actively participate in the management of the

population through hunting. He concluded that while this usually helps the overall case for the animal, there will always be those who hate wolves. (Widemo interview 2015-01-20) Education stands as the clearest alternative to hunting as a method to promote local acceptance; so, initially it may come as a surprise that education is not a primary concern for the Swedish Carnivore Association. Their primary role and concern is to influence other official stakeholders and government bodies, and they do not inform about the wolf as much as express their own views. This is mostly due to the limitations of their size as an organization, however, and instead they work practically in communities with fencing groups who help livestock owners to reinforce their carnivore proof fences (Dahlerus interview 2015-03-05). In this manner, the Swedish Carnivore Association and the Swedish Association for Hunting and Wildlife Management share a similar preventative method in terms of gaining acceptance. This is, however, mostly due to their limitations as organizations more than from a shared philosophy.

Of course, most of the actors admit that having local acceptance facilitates an easier management of the wolf. As stated in a report by a wolf committee which Uppsala CAB was involved with (SOU 2013:60):

> "In order for the management to be able to continuously change and still be perceived as clear and long-term, it needs to be directed toward goals that are understood and accepted by the people affected."

While the actors do not all agree on the best way to enable local acceptance of the wolf, the idea that acceptance reduces one dimension of the conflict is shared among them.

7.3 Decentralization

The last major divergence I will mention is the manner in which Sweden has gradually been decentralizing large carnivore management. Moving towards more local management is in fact usually considered a good step by many academics that deal with nature conservation. Berkes (2003:628) points out that "conservation is often regarded as a concern of elites who are insensitive to rural people and their livelihood needs." Decentralizing management is usually connected to efforts to rectify this failure that Berkes described. Interestingly, not all the actors feel Sweden's decentralization efforts are indeed aimed at giving local people influence over their landscapes, and more as a loophole to true access to justice. As will be elaborated on in chapter eight, decentralization of wolf management impacts which legal body different stakeholders can turn to if they want to dispute decisions.

On this point, the Swedish EPA and the Swedish Association for Hunting and Wildlife Management seem to agree: decentralization is a good step. They also associate Sweden's decentralization with larger international trends in nature conservation. As has been reiterated throughout the thesis, in 2009 the Swedish government introduced a new sustainable large carnivore management that aimed to decentralize the management to the county level (Lindahl interview 2015-01-15). According to Helene Lindahl, this tied back to the UN's Convention on Biological Diversity and the effort to have decision making moved closer to the populations most impacted by these decisions. The Swedish Association for Hunting and Wildlife Management agree with this decentralization process, and had been pushing for a more decentralized wildlife management for some time (Widemo interview 2015-01-22). In fact, Fredrik Widemo directly connected decentralization to expediting acceptance of the wolf. Widemo explained (interview 2015-01-22):

> "We are really driving the local and regional aspect hard, saying that attitudes towards wild boar for instance and other controversial game, you have, even amongst hunters, wildly different attitudes within a county, because some have them, and some don't. Those that don't have them want them, and those that have an established population think there are too many. So, already within municipalities and so on, you have, for one stakeholder, hunters only, you have very many different attitudes. So you really need to build the management on local and regional differences."

The Swedish Association for Hunting and Wildlife Management ties decentralization of management not only to gaining local acceptance, but also to larger goals of the IUCN (Widemo interview 2015-01-22). They also stress the need for communication between regions to make the most effective use of decentralized management and point to the Swedish EPA as good tool to facilitate this (Widemo interview 2015-01-22).

The Sami Parliament have a complicated reaction to the idea of decentralizing large carnivore management. In the interview with Stefan Mikaelsson he commented that anything impacting the decision making process for the Sami and their culture should be left with the Sami Parliament. Mikaelsson said (interview 2015-01-20):

> "So it is not acceptable that the regional government, Länsstrylesen (CAB), and Natursvårdsverket (the Swedish EPA), or the Swedish government takes these decisions about us. We are capable now to take decisions when it comes to supervising, monitoring and giving decisions about the hunting of predators. I am quite sure that it does not mean the termination of all predators."

This, of course, is not in agreement with the way Sweden has decentralized management as they have decentralized to the CABs (länstrylesen) level. But Mikaelsson feels that to decentralize further than the Sami Parliament, for example down to the Sami Village, would be problematic. He pointed to the origin of the Sami Villages, the Reindeer Husbandry Act of 1971, as being problematic in that it did not set up an ideal foundation for the villages today and thus they fail to function in an ideal and gender friendly manner. The Swedish Carnivore Association is also not in favour of decentralized management, particularly not for the wolf as it is such a controversial animal. In such a case were the animal is highly politicized, SCA feels it is irresponsible to give decision making power to local populations since this allows for influence by aggressive local lobby groups with unfavourable attitudes towards wolves. Ann Dahlerus reflected that (interview 2015-03-05):

> "there was this regionalization, decentralize the decisions, also a demand being made by the other side, because in our opinion when you have a very controversial issue it is not good to decentralize it to the CAB because they are much more apt to listen to angry local voices from influential people in the county. So therefore we think it is dangerous to decentralize wolf management, as it is so controversial. Therefore we need to keep it, it is so small and vulnerable and controversial, it should be handled by a national authority."

Contrary to other actors, the Swedish Carnivore Association does not view the decentralization as a positive move for long-term wolf viability. However, they still believe communities can and should be involved in conservation in some parts of the management

such as providing good knowledge of the local wolf situation and being engaged in a dialogue with managers. Nevertheless, the Swedish Carnivore Association believes having a small wolf population, such as the case with Sweden, restricts management to the national level. Not only do they consider it unwise to give decision-making power to local governing bodies such as the CABs, but also they see it as a step backwards in terms of NGOs access to justice (Dahlerus interview 2015-03-05). As will be explored in the following chapter, the decentralization of wolf management also limits some stakeholders' abilities to appeal to the Swedish administrative courts.

Finally, the CABs themselves seem to accept decisions made about decentralizing management and have attempted to move forward accordingly. On the matter of decentralization of decision making to the CAB, Lennart Nordvarg from Uppsala CAB commented that following EU law is still very important to the CABs and that they rely on the Swedish EPA for guidance (interview 2015-02-05). That being said, Nordvarg also revealed a nuanced understanding of how the situation may be misunderstood at the EU level. Nordvarg said in relation to wolf numbers (interview 2015-02-05):

> "[The EU] think(s) we should have more. But then the EU doesn't really understand the problem with the Sami people and the reindeer, because they think we can have wolves in northern Sweden. That's one of the main problems with the EU. That they don't see the complications as we do."

This dimension between the EU and the local level is an interesting element to navigate. Clearly the CABs want to stay in both Sweden and the EU's legal boundaries when it comes to wolf management plans, but they are also more aware of the complexities on a local level.

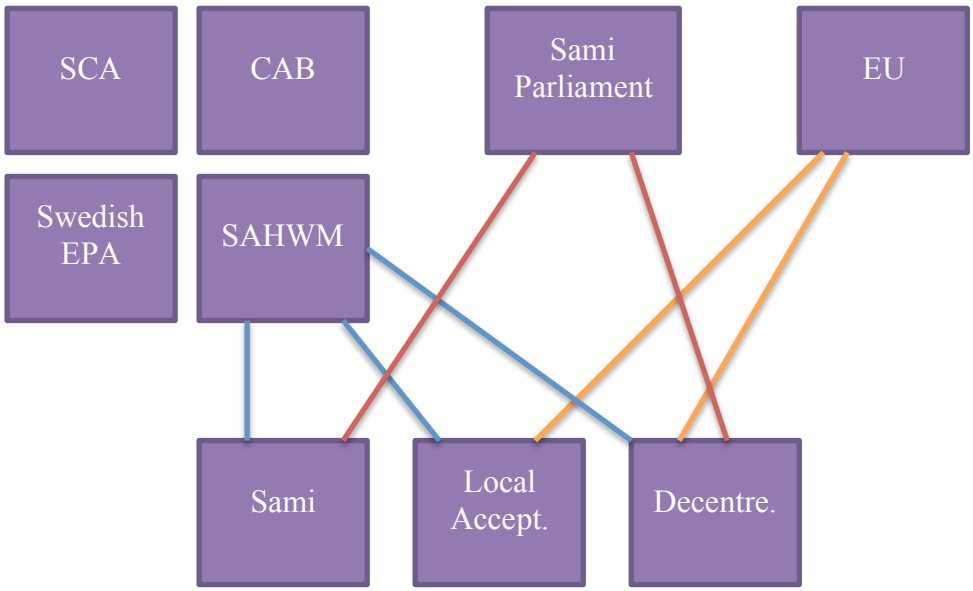

Figure 4: Factors to Consider for Wolf Management

While this chapter has gone into detail over the actors' diverging stances on wolf management, figure 4 simply illustrates whether the actors take into consideration similar factors without divulging their particular stance on each factor. What is illustrated clearly, however, is that all the actors take the Sami seriously as a factor to consider besides the EU.

The main points of divergences between the actors can still be seen on a gradient, or as networks between some, and not others. These main issues; Sami territorial rights, local

acceptance, and decentralization still helpfully illustrate ways in which these actors clash and illustrate parts of the management conflict itself. But as is the case with many other animals, different stakeholders have different ideas about what should be done and why. What is unique to the Swedish wolf is the intensity involved over these differences. The next chapter will expand on nature conservation issues concerning access of justice, and introduce the idea that part of the politicized nature, and thus conflict, comes from unequal access to legal avenues in response to decision making.

Chapter 8: The Legal Knot

The past few chapters have illustrated the connections, divergences, and ultimately networks between the actors. We have seen that actors otherwise considered anti or pro wolf actually can be woven into webs with other actors, regardless of their primary viewpoints and functions. The emphasis placed on practices, rather than perspectives, allows these actors to build their own wolf management realities outside of stereotypical assumptions of how the actors should act in regards to managing biodiversity. While so far the thesis has illustrated how the actors are connected in various ways, and agree and disagree to different extents, it still remains to expand on possible explanations for the crux of this thesis: the EU's legal proceedings against Sweden.

Various diagrams throughout this thesis have illustrated the fluid nature of networks and how emphasis shifts in terms of wolf management. Depending on what specific management issue is focused on the actors respond and connect to each other in different ways with different actors. What this chapter will outline is how and why the legal system influences these decisions to formulate networks.

This thesis is not rooted in a legal background and environmental lawyers have extensively investigated this legal dilemma between the EU and Sweden. I want to incorporate this legal discussion into my larger analysis as it adds depth to the legal dimension that the actors often circled back to. By relying on the work done by academics such as Jan Darpö and Yaffa Epstein I outline developments and changes in environmental legal proceedings in Sweden. As was seen in chapter seven, one of the elements all the actors agree play a role in their abilities to manage the wolf population is the politicized nature of the issue. While difficult to pin point an exact reason for this politicized nature, illustrating the actors' different access to legal systems concerning management decisions clarifies some points of tension between them.

To begin with it is pertinent to loosely outline the Swedish legal system. Sweden, among many other European countries, practices civil law (Oxford LibGuides 2015) in which there are three different kinds of court systems: the general courts, the general administrative courts, and the special courts (Sveriges Domstolar 2014). Despite the special courts containing five land and environment district courts which handle cases dealing with the Swedish Environmental Code (Ministry of Justice Sweden 2012: 17) the general administrative courts are responsible for making decisions regarding hunting appeals (Darpö 2013: 255). The general administrative courts consist of three tiers: administrative courts, administrative courts of appeal, and the Supreme Administrative Court (Sveriges Domstolar 2014).

One explanation as to why Sweden has found itself in a legal dispute with the EU can be rather simply outlined. Instead of dealing with disagreements over wolf hunts internally, NGOs such as WWF, the Swedish Carnivore Association, and the Swedish Society for Nature Conservation (Naturskyddsföreningen) did not have access to the Swedish court systems. These stakeholders were not permitted to appeal to the general administrative courts, as they were not personally invested in the matter. In reference to the decision to have hunts, Jan Darpö and Yaffa Epstein state (2013: 251):

> "Although this policy is argued to violate Sweden's international obligation to protect the species, no one has been able to challenge those decisions before a court of law, until recently. The reason for this is that standing to challenge administrative decisions in Sweden is generally limited to parties with an interest in the case, those whom the administrative decision concerns and adversely affects."

As NGOs were not themselves directly impacted by the decisions, only hunters and wolves were directly affected, they could not access the Swedish courts to voice their disagreement with the decision (Darpö 2013). Instead, extremely concerned with the decisions to have wolf hunts, these NGOs saw no other recourse but to turn to the larger legal body of the EU. The EU would rather countries have the means to deal with legal disputes themselves, instead of relying on the European Union's Court of Justice as the effectiveness of the EU as a legal body relies on national legal systems successfully interpreting and implementing EU law on their own (Darpö 2013: 254). However, in situations such as in the Swedish wolf hunts, stakeholders in large carnivore management could at least turn to the European Commission in a final attempt to have influence in a legal arena. In this case, the European Commission refers to the Habitat's Directive to evaluate the grounds for legal action. This explains to some extent how the EU became directly involved in Sweden's wolf hunt. And as was illustrated in chapter three, the European Commissions' involvement with Sweden's wolf hunts did put pressure on Sweden, resulting in Sweden abstaining from a hunt in 2012. However, Sweden has since reinstated hunts.

Access to Swedish courts over the wolf hunts has changed over the years. By 2013, the Swedish courts became more accessible to NGOs in regards to appealing the wolf hunts (Darpö 2013). The courts began to acknowledge the stipulations in the Aarhus Convention of 2001, of which Sweden is a signatory (idem.). The Aarhus Convention establishes the right of the public to obtain environmentally relevant information held by public authorities, and the right to participate in decision-making regarding the environment (EC 2015e). With the 2013 shift in the Swedish courts, the Swedish Society for Nature Conservation (Naturskyddsföreningen) was finally granted access to Stockholm's Administrative Court of Appeal in 2013 (Darpö 2013).

As has been noted earlier, Sweden abstained from a licensed hunt in 2012, but has since resumed licensed hunts. Why Sweden has shifted back and forth from having a licensed hunt to abstaining, to reassuming the hunt demands an investigation of its own. What has been drawn out through this thesis is that the CABs make decisions about licensed hunts when it can coincide with a larger national agenda. The larger political context was outside the scope of my research, but is clearly worth pursuing in its own right. But what can be briefly elaborated on is the justification from the Swedish Parliament for permitting hunting conditions. Interestingly, the justification for permitting licensed hunts has shifted since Sweden began hunts in 2010. Before 2012, the state explained the hunts as helping facilitate local acceptance of the animal through hunting, but after 2012 they rationalized licensed hunts as a way to increase genetic viability of the species. (Darpö 2013: 256)

In the case of the 2013 hunt, the NGOs finally had access to the administrative courts and appealed the decision internally. In the instances where NGOs were permitted access to Sweden's administrative courts they were contending with hunting decisions made by the Swedish EPA. As has been laid out in earlier chapters, the decisions regarding hunting have been decentralized from the Swedish EPA to the county administrative board level. As of today, the CABs decide upon licensed hunts, and now appeals on these hunting decisions are made to the Swedish EPA, not the administrative courts. For example, Dalarna's County

Administration Board decided on a licensed hunt in December 2014. This decision was appealed to the Swedish EPA, who found the CAB did not fulfill all the criteria for a licensed hunt and repealed the hunt (SEPA 2015).

It is once again difficult for outside parties to access the official legal decision making avenues, i.e. Swedish courts. What motivates these changes within Sweden when it comes to which bodies make official decisions and which bodies decide on them is unclear. What is evident is the different actors reactions' to the process.

Now that the Swedish EPA no longer makes the decision to have licensed hunts, they see themselves in the role of giving guidance and help with interpreting larger EU laws as well as making decisions on appeals. (Lindahl interview 2015-01-15). Lindahl commented that in her opinion, the lack of clarity over what and what is not allowed and by which governing organization contributes to the politicized nature of the wolf in Sweden (interview 2015-01-15). Lindahl hopes the Swedish EPA can issue guidance on how to interpret the legal requirements regarding licensed hunting soon. If the Swedish courts ask the European Union's Court of Justice then the interpretation would be approved (idem.).

The Swedish Association for Hunting and Wildlife Management does not have much direct contact with the EU, but work through the European Federation of Associations for Hunting and Conservation (FACE) (Widemo interview 2015-01-28). The Swedish wolf management is of considerable interest as an active case for testing the EU legislation, meaning that there is significant contact between the Swedish Association for Hunting and Wildlife Management and FACE on wolf management. When asked about the EU's involvement with their policy, Fredrik Widemo explained how the organization feels the EU's Habitats and Birds' Directives are too inflexible for the current biodiversity situation in Europe. Having hunting decisions go through the administrative courts and having the decisions be influenced by the EU's larger legal framework is not a particularly good outcome for the Swedish Association of Hunting and Wildlife Management. As was explained in the previous chapter, the Swedish Association for Hunting and Wildlife Management had been driving towards a more decentralized management plan, and feel the CAB taking charge of hunting decisions is a step in the right direction. Lennart Nordvarg from Uppsala CAB commented on the tedious nature of wolf appeals for administrative courts. Nordvarg said the CABs do their jobs regardless of imminent appeals, but was thankful that once a court makes a decision they can move forward with management in some way (interview 2015-02-05).

The Swedish Association for Carnivores is the most displeased out of all the actors in terms of how appeals and decisions are now conducted. Ann Dahlerus reflected on the perceived advances environmental NGOs such as the Swedish Carnivore Association, WWF, and the Swedish Society for Nature Conservation saw in 2013 when they were finally able to access the Swedish administrative courts in regards to wolf hunts. Now, with the decentralization of management to the county level the Swedish Carnivore Association can appeal to the the Swedish EPA, but once the Swedish EPA makes a decision the Swedish Carnivore Association cannot take the appeal to the Swedish courts (interview 2015-03-05).

While decentralization is often understood to be taking conservation management in a positive direction, the Swedish case complicates this idea. Theoretically decentralization allows more control of wildlife and local landscapes to the communities most affected, but in this case it also contradicts transparency and access to justice for other stakeholders in large carnivore management. Instead of simplifying management, decentralization has resulted in additional complications in the wolf management negotiations in Sweden.

Chapter 9: The Wolf as An Actor

So far this thesis has discussed the ways different actors practice management and build networks beyond the assumed polarized position they may be assumed to occupy. What has been left unexplored, however, is the way the wolf itself is also an actor. While the wolf does not occupy a position as an 'official stakeholder' in wolf management, it is difficult to argue that the wolf does not influence the actors in its own way as it plays a central part in the dilemma.

In 2011 Sweden was introduced to a female wolf who would come to be referred to as the Junsele Wolf, or by some of her supporters, as Susi (RCI 2013 para:1). Without declaring a particular position for or against this wolf, but merely to simplify the narrative, I will refer to her from this point forth as Susi. Susi was considered a genetically valuable specimen as she came from Finnish/Russian stock (idem) and had migrated from Finland to northern Sweden (Radio Sweden 2013). Unfortunately for many of our other actors, Susi seemed to find northern Sweden a perfectly acceptable place to end the migration process.

Susi's presence in northern Sweden created problems for local inhabitants, particularly those involved with reindeer herding. Susi became both a burden and an investment for those concerned with wolf management because of her genetic value (SEPA 2013b). As stated in chapter three, Swedish policy states that all year reindeer territory should remain wolf free. The Swedish EPA therefore decided to move Susi south in order to reduce attacks on reindeer. This, however, did not bode well with Susi's own notions of where she should settle down and soon after she was resettled, Susi once again moved north.

As a few of the actors have stated at one point or another, the wolf is in fact a wild animal with somewhat unpredictable behaviour. Before moving on to discuss the networks that Susi created through her movements, it is perhaps of interest to note a few of the territorial characteristics of the wolf. While globally there are various types of wolves, Sweden plays host to the *Canis lupus*, commonly referred to as the grey wolf. The wolf is a social animal, and dependent on circumstances it generally lives in a pack with its own home territory (Paquet 2003). This home territory is thought to be contingent on food availability; which for the Swedish wolf generally includes moose, reindeer, roe deer, and at times beavers and other smaller mammals (Knappwost 2006). The home territory is more dependent on food sources than it is on particular habitats, as the grey wolf is known to be a habitat generalist; living in forests, deserts, tundra and grasslands (Paquet 2003).

Susi behaved precisely in the somewhat unpredictable way that many of the actors have commented on, and despite the Swedish EPA's best intention of both sustaining biodiversity and Sami interests, Susi kept migrating north. The Swedish EPA would in fact try and relocate Susi four times. With each relocation, however, Susi determinedly worked her way back up north.

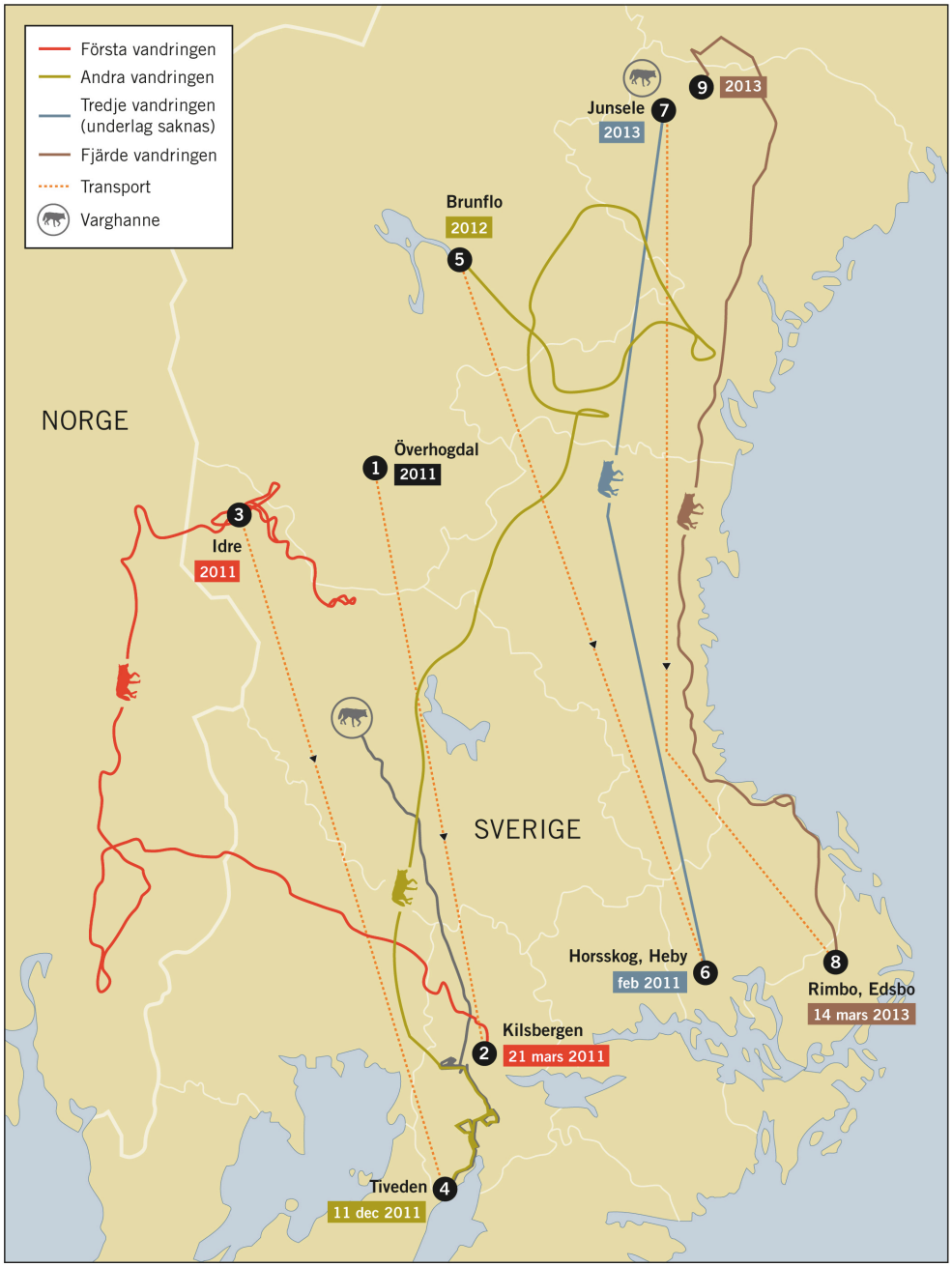

Figure 5: Swedish Environmental Protection Agency's Map of Susi's movements (SEPA 2013b)

As illustrated in figure 5, Susi was first relocated from Överhogdal to Kilsbergen in early 2011. She then worked her way up to Idre, where she was once again anaesthetized and flown south, this time to Tiveden. At this point, Susi made contact with a male wolf and the two of them briefly continue north together until separating northwest of Kilsbergen. Susi continued north, this time until she reached Brunflo, at which point it is early 2012. She is taken south once again by the Swedish EPA to Horsskog. But now Susi is without a radio collar due to medical reasons (Hedenljung 2013). Again Susi marched north, finding herself in the region she would soon become associated with: Junsele. Here Susi established herself for the summer, and when the reindeer are moved back to Junsele in the autumn, she caused damages to the reindeer stock (idem). The Swedish EPA, however, felt it was not healthy to continuously drug and relocate Susi, and thus considered their third relocation their last. The Västernorrland County Administrative Board applied to the Swedish EPA for protective

hunting license so as to protect the reindeer herds (idem). While initially permitted, the decision was appealed to the administrative courts of appeal by several environmental NGOs, and the protective hunting permission was repealed on the grounds that the Swedish EPA had not exhausted all other possible solutions to solve the matter with Susi (idem). Thus the Swedish EPA once again took up the task of relocating Susi, and released her in Rimbo, at which point Susi immediately began the long walk back up towards Junsele. She covered 500 km in 15 days, and once reestablished in the area Susi began to once again cause issues with local populations until she could no longer be accounted for (idem.). Susi's fate, as it seems, is not entirely clear. Authorities could not find any trace of Susi when they searched for her in March 2014, and despite the Swedish Carnivore Association's reward of 100 000 kronor for information of the wolf's whereabouts, no explanation has surfaced (Rovdjur n.d.d).

This individual female wolf, Susi, caused many of the actors to attempt different management strategies and adapt them based on her activity. The Swedish EPA is a central actor in this interaction as they are held responsible for Susi's well-being and her actions by many of the other actors. According to Helene Lindahl the Swedish EPA had two government assignments related to Susi: to translocate wolves who wandered into the reindeer herding area (2011-2014), *and* to reach an economical agreement with the affected Sami villages in order to keep the wolf alive (Winter 2012/13) (Lindahl correspondence 2015-05-19). The Sami Parliament finds Susi's presence to be counter productive to sustaining their livelihood connected to reindeer husbandry. Anders Kråik, the Sami Parliament Deputy Chairman, commented that the decision to protect genetically valuable wolves in reindeer herding areas is at the expense of the Sami's reindeer husbandry (Sametinget 2012). The Swedish EPA, however, have obligations to try and enhance the genetic viability of the Swedish wolf population (SEPA 2014). This means allowing protective hunts for genetically important wolves is not an easy task to bring to completion. In Susi's case the appeal of the Västernorrland County Administrative Board for protective hunt was first approved and later revoked through the involvement of environmental NGOs. The environmental NGOs, including the Swedish Carnivore Associations, involve themselves through legal avenues in attempts to have their perspectives on maintaining biodiversity heard. In this case the SCA's secretary general appealed the decision to have a wolf hunt in regards to Susi to the Swedish administrative courts, a legal process which would carry on for two years (Ann Dahlerus Correspondence 2015-05-19). Meanwhile, as I discussed here, the role and responsibility of the CABs is to facilitate a fair exchange between the local populations desires, and larger national carnivore management strategies. All of these reactions and networks are established because of the singular movements of a female wolf through middle and northern Sweden.

The Susi case shows the complexity of responsibilities and networks between actors. Had Susi indeed decided to stay in the territory to where she was relocated the conflict would have been somewhat resolved. However, in this case Susi was apparently attached to more northern territories, which confounded the matter. The example of Susi stresses some of the problems related to management plans and discussions on for instance density of populations as discussed in chapter 6. As is also concretely illustrated by Susi, the wolf doesn't recognize county or national borders and the movement of the wolf can only be controlled to a small extent without exhausting resources. There are also expectations attached to specific wolves dependent on their genetic value, which can influence and motivate management decisions. The animal, in short, is a somewhat erratic variable to contend with when coupled with social and economic factors.

Chapter 10: Conclusion: What IS the Wolf

In the pursuit of examining the polarization of the wolf issue in Sweden I found myself continuously referring to one main event: the European Commission's legal proceedings against Sweden. This event allowed a further examination of Lars J. Lundgren's reflection that "Membership [in the EU] would give Sweden greater opportunities to influence environmental policy throughout Europe, but leave it less space to pursue more ambitious policies of its own. What was better?" (Lundgren 2011: 34) . This conundrum was not the initial focus of my study and I did not set out to answer this complicated question, but I ended up examining the wolf as a case study reflecting Sweden's compromises in this regard. The relationship between the EU and Sweden creates a tension between internal and European wide management strategies. This tension influences networks and practices of the other actors, but not because they take on and maintain easily defined pro and anti wolf positions. As I have shown here different actors in wolf management cannot be easily slotted into pro wolf and anti wolf camps as is often represented in media. Simply put, there are no camps, actors are instead interacting and contesting each other on particular positions.

And this takes me back to the initial research question: How do networks between a select group of actors in large carnivore management help explain the conflict surrounding the Swedish wolf? By mapping networks based on actors' practices and management strategies around the wolf, the actors themselves illustrate the different dimensions of the wolf. These different dimensions can be thought of as manifestations of multiple truths about the wolf in Sweden. We have seen the wolf as a villain, as a number, as a concern, as controversy and as an actor itself. This is not to say there are not further manifestations of the wolf. Depending on which actors are selected, which inquiries are followed, and which time frame is used, different truths about the wolf are bound to appear.

As is typical in many inquiries of environmental history a topic that can be initially conceived of as quite straightforward, in this case historical and present negotiations of managing a carnivore, generally reveals itself to be very complicated. Some of the relations between actors are historically conditioned, whether through treaties, agreements, or the manner in which wolves are historically associated with strong human sentiments towards the animals. While there are historical elements contributing to the discussion surrounding wolf management, there are simultaneously new connections and contestations being forged, such as the legal dispute between the EU and Sweden. The Swedish wolf does not stand alone as an object to be managed, but is a subject and actor itself that impacts and influences other actors. The wolf has social, environmental, and economic impacts on sustainable development, and to attempt management of the wolf requires an incredibly nuanced understanding of its impacts on several dimensions.

This thesis has explored the networks and truths of several actors in an attempt to understand what appears to be a polarization of the wolf issue. Using proponents from ANT, the actor's practices and consequently networks were illustrated, which highlighted major similarities and divergences between the actor's management strategies. By doing so the apparent polarization of the issue has been partly dissolved, but at the same time it is clear that the actors themselves experience effects of the polarization as it is in fact stemming from how politicized the issue is. While there were several components where stakeholders'

management practices differed, what all the actors eventually revealed was how the politicized nature of the wolf had a negative impact on their capacity to successfully manage the animal according to larger legal frameworks. The politicization of the wolf once again brought the EU's legal proceedings against Sweden to the forefront in my study.

As has been discussed here, Sweden's entry into the EU requires Sweden to meet certain biodiversity requirements. The EU membership also limits Sweden's ability to make its own decisions about wolf management without larger repercussion. However, the EU also provides a larger legal framework that stakeholders can rely on and refer to in their own efforts to make an impact on environmental management. This is especially true after the introduction of the Aarhus convention in 2001, which provided environmental NGOs legislation to refer to in order to justify their positions (p.42).

The conflict over wolf management in Sweden usually takes on a highly political and controversial language. We saw how the simplification of the conflict in every day discourses fails to justly provide people with a nuanced understanding of the main actors in large carnivore management. Rhetoric usually focuses on the divergent stances of the actors instead of outlining the different ways they cooperate. This thesis provided a space for a few selected actors in large carnivore management in Sweden to create networks based on their practices. By removing assumptions and refraining from a structural 'placeholder' explanation of the conflict, the actors performed their roles as they simultaneously built and relied on networks.

Instead of illustrating vast differences between the actors, common understandings were more often than not relied on to explain practices and positions. Again the idea that the issue is incredibly polarized for the different actors did not materialize. Most of the actors agreed there will always be individuals who feel strongly about the issue one way or another, and while there will definitely always be people who hate the wolf, generally the actors did not allow this to govern their decision making. Instead, the issue of the wolf is better understood on a gradient from positive to negative impacts with varying factors influencing the actors' positions and practices.

What mostly divides the actors over wolf management is their ultimate sustainable development goals. While the dispute between Sweden and the EU has been identified as the issue that amplifies the wolf dilemma and adds to a discourse of polarization, the remaining actors still disagree and diverge on different components of management strategies. The issue of disagreement is primarily rooted in different recommended wolf populations, but recommendations are intimately tied in with the actors' main goal of sustainable development. The Swedish Association for Hunting and Wildlife Management, on one hand, wishes to play a role both in maintaining and managing biodiversity and in sustaining a culture of hunting. The Sami Parliament is concerned about environmental issues and feel a responsibility to maintaining nature, but simultaneously and ultimately work towards creating/maintaining conditions for a sustainable Sami culture. The Swedish Carnivore Association is primarily and highly concerned with the sustainability of large carnivore populations, and prioritizes biodiversity in terms of sustainable development. The state actors such as the County Administration Board, and the Swedish EPA have commitments both to maintaining biodiversity, and to keeping local interests in mind and local lifestyles sustainable. As summarized by the wolf committee commissioned to create a report for the Swedish Parliament "The management must create forms for coexistence between humans and wolves while taking into account the best interests of both" (SOU 2013:60). Despite the actor's different emphases, this dichotomy between man and nature is not lost on any of them.

But ultimately what this thesis has revealed to cause the most tension for the actors is the dispute between the EU and Sweden over licensed hunts. Indeed, this dispute has illustrated a political balancing act that EU and Sweden are caught in: Sweden vying for more autonomy in terms of conservation management and the EU relying on Sweden's cooperation as a member state. This struggle between the EU and Sweden has caused anxiety and uncertainty in terms of decision making for actors positioned underneath both Sweden and the EU's authority. Instead of perpetuating a rhetoric which positions a number of different actors against each other, it seems best to understand the epicenter of this conflict as being suspended in space between Sweden and the European Union.

A more extensive and more detailed investigation of the political atmosphere between Sweden and the EU on other issues besides the management of carnivores may provide a clearer picture of why they are currently at odds. A better understanding of the conflict at this juncture would perhaps allow a de-politicization of the Swedish wolf issue on national levels. Without feeling trapped between two vying sets of legislation, the remaining actors could focus their energy on moving forwards with solutions and compromises in wolf management without the European Union's Court of Justice, or Sweden's administrative courts looming over their decisions and practices.

Summary

This thesis has examined the controversy and discourse of polarization that surrounds the wolf in Sweden. Specifically this polarization was examined in the interactions, processes and networks of several official stakeholders in large carnivore management in Sweden. The text begins with outlining the general conflict of the wolf in Sweden and how this topic relates to Global Environmental History. It then goes on to state the research question, followed by a presentation of how the methodology of Actor Network Theory was utilized during the research and writing process, along with a discussion of the accompanying theory that shaped this thesis.

Once the topic, research question, methodology and theory were outlined this thesis presented the various stakeholders (henceforth referred to as actors) selected for this study. The European Union, the Swedish EPA, the Sami Parliament, the County Administration Boards, the Swedish Association for Hunting and Wildlife Management, and the Swedish Carnivore Association were explained in their capacity as official actors in wolf management. This section of the text concluded with a figure illustrating the manner in which these actors relate to each other in terms of management strategies.

Following the introduction of the actors the text moved on to confront the simplest explanation for why the wolf issue is polarized, which is generally framed as the idea that the wolf is merely a frightening, destructive, and thus controversial animal. This chapter aimed to justify an extension of this explanation before moving forward to the analysis.

The fifth chapter further elaborated on the fractionality of science, which was initially explained as part of the theory shaping the thesis. To do so, the varying recommended population numbers of the various actors were presented as evidence that despite similar scientific findings and reports, conclusions about how to practice management with these scientific findings differs. This divergence over population numbers may be further considered evidence of polarization over the wolf, but the following chapters illustrate a more nuanced approach to understanding the issue. Figure 2 is used to visually represent another manner in which networks can be constructed between actors.

Chapter six begins to complicate this idea that actors involved in wolf management find themselves in polarized positions against one another. This chapter illustrates the similarities in the actors' wolf management practices by outlining their shared preoccupations over wolf density, physical restrictions of the peninsula, and the politicized nature of the wolf. Figure 3 helps illustrate the ways actors can positively align themselves and shape networks with each other based on their shared concerns.

Chapter seven approaches major divergences between some of the actors, which mainly consisted of issues over the Sami's reindeer herding traditions and accompanying land rights, human/wolf conflicts and local acceptance, and decentralization of wolf management. While there are indeed factors the actors disagree on in terms of management, networks and cooperation between actors still exist. Figure 5 once again visually illustrates the actors in their different networks and concerns.

The following chapter more thoroughly examines the legal structure the actors work within, and concludes the interaction between the Swedish legal system and the European

Union's Court of Justice play a large part in shaping the dilemma between the actors. The dilemma is illustrated as being rooted less in divergences over management and practices, and more over unequal access to the legal system.

The ninth chapter introduces the idea of the wolf itself as an actor. By using a case study of one female wolf who was relocated four times due to her presence in reindeer herding territory, the real impact of interacting with, and trying to manage a wild animal was illustrated. The wolf as an individual animal is concluded to be an extra variable to keep in mind when considering the various elements in management decisions. Figure 5 is used to show the various routes the female wolf took in Sweden, and the efforts to relocate her.

The tenth and final chapter concludes that despite the fact that the actors have different views on the wolf issue, they often manage to have similar management practices and strategies. This illustrates that the polarization is more often based in rhetoric than in practices. The various actors' have similar concerns and strategies when it comes to managing the animal, and they all consider the tension between man and nature when to comes to management. The politicization of the wolf, seen in the dispute between the EU and the Swedish state, is argued to contribute to the discourse of polarization, and is thus an interesting case for further study.

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