

SAFEGUARDING THE SAIMAA RINGED SEAL

LIFE12 NAT/FI/000367 LIFE Saimaa Seal

ACTION D4 Pre and post-project attitudes for Saimaa seal conservation at the regional and the national levels

Project Delivery 5/2014: Development and present status of the attitudes and atmosphere for Saimaa ringed seal conservation

Minttumaaria Jaakkola, Salla Laasonen, Timo Vuorisalo,
University of Turku



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1 INTRODUCTION

The Saimaa ringed seal (*Pusa hispida saimensis*) is an endemic relict of Finland living only in Lake Saimaa, which is inhabited by a human population of ca. 300 000. Nowhere else in this planet are seals living as close to human habitats as in the Lake Saimaa (Niemi, 2013a). Saimaa seal has coexisted with humans in the Lake area since prehistoric times (See Chapter 2.1.).

Lake Saimaa and its coastal areas have high recreational and economic value. The most relevant commercial industries in Lake Saimaa are fishing and tourism, and the waterways are also used for transportation. The importance of commercial fishing is declining, with only 30 full time fishermen in 2010 (Salmi et al., 2013), while the importance of tourism is rapidly growing (MEK, 2014). The area is also a popular recreational attraction for leisure and recreational fishing: There are nearly 50 000 summer cottages by the Lake Saimaa (Statistics Finland, 2013) and more than 400 000 active recreational fishermen (Salmi et al., 2013).

A necessary prerequisite for increasing the Saimaa seal population size into 400 individuals (the presumed viable population size) by 2025 set in the *Saimaa ringed seal conservation strategy and plan* (Environmental Ministry, 2011) requires a positive attitude and atmosphere, and a broad commitment to the Saimaa seal conservation by key stakeholders, especially the local people who share the same habitat with the Saimaa seal. Achieving this depends largely on the attitudes towards the Saimaa seal itself and especially towards the regulations concerning the use of water and coastal areas of the Lake Saimaa. Since the 1970s, the Saimaa seal has been one of the icons of the Finnish conservation policy, and its unsustainable population trends have aroused great concern among general public (see also Chapter 2.3.). It has also been a source of controversy due to the implemented conservation tools, which the locals perceive as a violation of land- and water area owner's fundamental rights to 'a good natural asset' (cf. Tonder and Jurvelius, 2004) and longstanding fishing traditions (e.g. Tonder and Salmi, 2004; Tonder, 2005; Bell et al 2008; Chapter 2.5.).

The Saimaa seal population has been protected by regulating human activities in the lake area. Fishing has been regulated to some extent in the main breeding areas of the seals in Lake Saimaa since the 1982. Regulation was strengthened in spring 2011 by government decrees (294/2011 and 295/2011) issued under the Fishing Act (286/1982). The most dangerous types of fishing gear for the seal (e.g. certain specified fish traps, fish baited hooks, strong-mesh gillnets) have been forbidden all year round since 1999 in the area inhabited by the seals (Government Decree 295/2011). The other Government Decree (294/2011) determines seasonal ban on gillnet fishing from the 15th of April to 30th of June. In particular, this decree aims to reduce juvenile seal mortality. The

mentioned time period from late spring to early summer is also an important time for fishing (Salmi et al. 2013).

In addition to the threat of bycatch mortality, the Saimaa seal also suffers from human disturbance, especially during the breeding season from mid-February to early March. The Saimaa seal pups are born in snowdrifts along shores (eg. Sipilä 1990), species shows inter-annual breeding site fidelity (eg. Sipilä, 1990, 2003; Valtonen et al. 2012) and the natal site is important for the pup until dispersal in mid-May (Niemi et al., 2013a). Disturbance of the Saimaa seal haulout areas, towards which the seal shows a high level of site fidelity, is also a risk for the Saimaa seal (Niemi et al. 2013b). Thus, the pressure is to mitigate disturbance at areas important for the seal by means of land use and planning and restrictions of transportation and activity on and around the lake. The *Act on planning and construction (132/1999)* aims to organize planning and construction so that socially, culturally, ecologically and economically sustainable development is promoted and hence, it aims to protect biodiversity and environment as well.

As noted above, the acceptance of restrictions on the use of the lake is vital for the success of the Saimaa seal conservation plan. The motivation for this study lies in assessing the conditions for this acceptance: *The purpose of this study is to investigate the present status of attitudes and atmosphere towards Saimaa seal conservation.* To support our analysis, we also present the historical development of the concern for the Saimaa ringed seal from prehistory to present (Chapter 2).

The focus of our study is on the *qualitative* nature of the attitudes and atmosphere, i.e. analysing what the Saimaa seal discourse contains, and what the argumentative landscape looks like. Survey-based studies have been conducted in the past to assess general public opinions on specified aspects, such as attitude towards gillnet fishing in Lake Saimaa (eg. Taloustutkimus 2009; Ahola, 2010; Kolari et al., 2011, Salmi et. al 2011). In contrast and/or support of assessing opinions based on a structured questionnaire, the purpose of this study is to capture the content, interconnections, and contradictions within the Saimaa seal discourse with an inductive approach. The benefit of this approach is a more culturally and socially informed understanding of the phenomenon. A previous qualitative study has contributed to this end, with focusing on a certain geographical area in the Saimaa Lake area; Pihlajavesi (Tonder and Jurvelius, 2004; Tonder, 2005). The current study extends the analysis to capture both the national and local (surroundings of the Lake Saimaa area) levels.

The findings of this study may be utilized to inform the other actions of the main project (LIFE12 NAT/FI/000367 LIFE Saimaa Seal), especially those that aim to change the attitudes and atmosphere during the project through information and education. The study may also be utilized to inform the content of future statistical opinion studies.

The structure of the study is the following: First, we present the historical development of atmosphere for Saimaa ringed seal conservation based on literature. The historical

atmosphere forms the basis for the present attitudes and atmosphere for the Saimaa ringed seal conservation. Second, we present a current status of attitudes and atmosphere towards Saimaa ringed seal conservation. The sources for the attitudes and atmosphere in this study are media discourse and interviews. The media discourse consists of articles from two newspapers: The main local newspaper Itä-Savo, and the main national newspaper Helsingin Sanomat. Key stakeholders of the Saimaa ringed seal discussion were interviewed in order to analyse the arguments used to support or oppose Saimaa seal conservation and conservation tools and how these arguments vary within and between different stakeholder groups. We also investigate whether the arguments of different stakeholder representatives differ as represented via media discourse and interviews as some stakeholders or individuals may receive or take increased media coverage compared with others. The media plays a powerful role in shaping and constructing societal phenomena, and thereby influences the general atmosphere and perception of the issue. While the influence, let alone existence or direction of causality cannot be assessed with statistical significance at the outset of the project, similarities and differences of arguments, and the representativeness of the types of arguments can be compared qualitatively.

In addition to the differences and similarities mentioned above, we also assess the arguments expressing trust or distrust between and towards different stakeholder groups. The commitment to conservation and acceptance of regulations requires trust in scientific research and authorities, as the decision making is largely based on scientific ecological knowledge applied by authorities (Tonder and Salmi, 2004).

2 HISTORICAL DEVELOPMENT OF THE ATTITUDES TOWARDS SAIMAA SEAL AND ITS CONSERVATION

2.1 Prehistory to 1892

The Saimaa seal has coexisted with humans in the area nowadays belonging to the Lake Saimaa basin since prehistoric times. Archaeological seal remains have been discovered in the entire Ancient Lake Saimaa area, from Outokumpu in the north to Lappeenranta in the south, and Leppävirta in the west. Although the bone remains have not been identified to species they probably all represent the ringed seal. (Ukkonen, 2002.) During the Stone Age seals were the most important source of fat for the ancient Finns, and in the marine coastal areas seal hunting may have been more important for local economy than fishing (Huurre, 1998). Seal hunting continued to be important for local people and since the Middle Ages also for taxation in the Baltic Sea coastal areas. Olaus Magnus (1555), in his *History of the Nordic Folks*, described seal hunting methods in the Baltic Sea.

In addition to being an important hunting resource, seals were considered as harmful pests as they competed with local people for fish. Ylimaunu (2000, p. 354) has listed the types of damage caused by seals to local fisheries: damage to fishing nets and other traps, stealing fish from fishing gear, repellence of fish from their habitat, competition with humans for fish resources, biting damages on captured fish, and fish parasite transmission. In the Baltic Sea area the role of seals as competitors for humans was emphasized from the period of enlightenment in the 18th century to the 1960s (Ylimaunu 2000, p. 356). The competitive aspect was stronger in areas where seals were not hunted, and total extermination of seals was often the target there. In areas where seals were hunted and had importance for local economy, the target was usually more balanced; to ensure both continuous hunting of seals and to control damage caused by them.

The earliest literary source on the Lake Saimaa seal is probably the 1792 doctoral thesis of Michael Ticcander that dealt with the history and geography of Sysmä. He claimed to have himself seen seals in the Lake Saimaa (Becker & Sipilä, 1984). A few decades later, Nilsson mentioned in 1840 in his *Illuminerade figurer till Skandinaviens Fauna* that according to a second hand source seals were said to occur even in the Lake Saimaa (Nordqvist, 1899). During the 19th century scientific knowledge on the Finnish birds and mammals increased rapidly. Aukusti Juhana Mela's *Vertebrata fennica* (1882) was a landmark book as it for the first time reviewed all vertebrate species known in Finland. Mela mentioned the seals in Lake Saimaa, and claimed that seals were living as far north as in Haukivesi and Pyhäselkä. According to Nordqvist (1899) and Mela & Kivirikko (1909) seals occurred in addition to main Saimaa in the south also in Haukivesi, Puruvesi, Orivesi and Pyhäselkä; single (and doubtful) observations were reported from

both Pielisjärvi and Kallavesi. Both editions of *Vertebrata fennica* mentioned the harmfulness of lake seals to fisheries (Mela, 1882; Mela & Kivirikko, 1909). Specifically, local fishermen claimed that seals visited their fishing nets to feed on trapped vendaces (*Coregonus albula*), thereby often damaging the net, and moreover robbed bait fishes from their long lines (Nordqvist, 1899).

It is difficult to study seal attitudes in the Lake Saimaa area separately from the national seal policy that obviously better reflected the situation in the marine coastal areas than in the big lakes (Ylimaunu 2000, p. 398). This can be clearly seen in hunting and fishing legislation. The Swedish State Law of 1734 granted anyone the right to kill seals on anybody's land; this reflected the attitude that seals were merely considered as pests (Ylimaunu 2000, p. 358). In the Imperial Hunting Decree of 1868 seals belonged to the category of "other creatures", for which there were no hunting regulations (Hunting Decree, 1868). In the revised Imperial Hunting Decree of 1898 "lake seal" was plainly categorized as a pest that anybody had a right to kill wherever found (Hunting Decree, 1898).

There is, however, no evidence of any systematic seal hunting or persecution tradition in the Lake Saimaa area before the late 19th century. Vuorela (1975, p. 78) described seal hunting in the Lake Saimaa as sporadic, and in any case less important than in the Lake Ladoga. Ylimaunu echoed by noting that hunting of seals in Lake Saimaa was before the late 19th century practically nonexistent (Ylimaunu 2000, p. 85, 238, 364, 377, 491). Seal cubs were not hunted at all in either of the big lakes, Saimaa or Ladoga (Ylimaunu 2000, p. 150). It seems that seals were tolerated as part of the natural environment, and were only occasionally killed during fishing trips. Lack of regular hunting before the late 19th century indicates that harm caused by local seals to lake fisheries was not considered intolerable. The increasing perception of damage since the late 19th century was probably caused by increased importance of commercial fishing in inland waters at the turn of the 19th and 20th centuries (Tonder, 2005).

2.2 Hunting bounty period 1892 to 1948

The uniqueness of the Saimaa seal has from the very start been used as a justification for its protection (Stén, 1981). From the global perspective seal populations in lakes are rare, known only from the Eurasian lakes Saimaa, Ladoga, Caspian Sea and Baikal, in addition to a few North American inland populations. Oscar Nordqvist (1858–1925) was the real discoverer of the biological uniqueness of the Saimaa seal. Nordqvist had taken part in Nordenskiöld's Vega Expedition, and was a well-known specialist on aquatic zoology. He was perhaps the first to consider the seal population in Lake Saimaa as a glacial relict (Nordqvist, 1899). In his 1899 article in *Acta Societatis pro Fauna et Flora Fennica* he

compared the osteology of isolated local populations of the ringed seal, and described for the first time the special anatomical characteristics of the seal population in Saimaa. He also speculated on the causes of anatomical differences between the different local races from the evolutionary perspective. For instance, he explained the larger eye size of the Lake Saimaa seals compared to Lake Ladoga seals by the darker waters and longer ice cover in the former lake. Bigger eyes are helpful for navigation and foraging in the dark. Nordqvist described Saimaa seal as a distinct local population with the trinomial name *Phoca foetida* var. *saimensis*.

Ever since Nordqvist's 1899 landmark article both the history of the Saimaa seal as a glacial relict and its morphological distinctiveness have been established facts (Stén, 1981; Hyvärinen et al., 1984). For instance, a few years after Nordqvist's paper the leading Finnish zoologist, Professor Johan Axel Palmén recommended preservation of the Saimaa seal due to its uniqueness: "it is by no means [as] necessary to exterminate another Finnish mammal, the Saimaa seal, that is as far as is known not occurring anywhere else, and differs (although not greatly) from the seals in the Gulf of Finland, Lake Ladoga and elsewhere. For natural historical reasons we should allow its existence there [in Saimaa], instead of trying to exterminate it by paying bounties" (Palmén, 1905, p. 150).

The time was however not yet ripe for protection of seals. Attitudes towards both avian and mammalian predators had clearly polarized in the late 19th century Finland (Turpeinen, 1976) and, to some extent, the Saimaa seal fell victim to the national anti-predator campaign. Ilvesviita (2005) divided the development of the Finnish national hunting policies into three eras, each representing a transition in the hunting policy. The first period from 1865 to 1920 was an era of class society in which hunting was regarded as a sport and hobby of the ruling elite. Different animals belonged to different categories, as exemplified by the 1868 Hunting Decree. Game was regarded as useful to the human economy while predators were doomed to extermination. The main objective of game management was to kill all predators. According to Turpeinen (1976) and Mykrä *et al.* (2005) the newly established hunters' associations, for instance the Finnish Hunters' Association established in 1865, strongly advocated persecution of species classified as harmful. Carnivores were considered "cruel" beings that deserved to be punished. The negative attitudes towards predators were most clearly manifested in the 1898 Hunting Decree, which ornithologist and animal welfarist Thorsten Renvall ironically called a "great triumph" for the country's sports hunters, or even as their "magna charta" (Renvall 1902, 1912). In the 1898 Hunting Act seals were plainly categorized as pests which anyone had a right to kill.

Oscar Norqvist, the discoverer of the uniqueness of the Saimaa seal, also played a central role in the early persecution efforts. In the first meeting of the Fisheries Association in Finland on 19 March 1892, Nordqvist gave a talk on the extermination of

seals from the Baltic Sea, and Lakes Ladoga and Saimaa (Kilkki & Marttinen, 1984). He recommended bounties to be paid for killed seals, with total extermination of the Saimaa seal as one of the objectives. A month later the association, accordingly, decided on a bounty of three Finnish Marks for killed Saimaa seals (Nordqvist, 1899). Interestingly, a motivation for Nordqvist's (1899) anatomical study was to help bounty-paying organizations by defining criteria for identifying body parts of killed Saimaa seals.

In the six years that followed 6 to 33 seals were killed each year, the average number being 17 seals per year (Nordqvist, 1899). The number was modest, especially as it probably included accidental by-catch from fishing nets, and considering the possibility that seal population may at the time have been as high as about 700 individuals (Rautiainen, 1998). The relatively small number of killed Saimaa seals suggested, according to Nordqvist (1899), that any regular hunting was unlikely in the area.

According to a review by Hussi (2014), bounties were paid for a total of 693 Saimaa seals from 1892 to 1948, when paying of bounties was terminated. Bounties were paid during two periods, from 1892 to 1918 (406 seals killed), and 1928 to 1948 (287 seals killed). The peak period of seal hunting seems to have been in 1909–1918, when in Mikkeli Province alone bounties were paid for 140 seals, most of them in Rantasalmi (Ylimaunu, 2000, p. 364). During the latter period the average number of killed seals was 14 per year, which can hardly be considered severe persecution. Bounties were paid by the Fisheries Association of Finland until 1908, and thereafter by the state. The numerical value of the bounty increased stepwise from the original 3 Finnish Marks to 200 Marks in 1947 (Hussi, 2014).

The impact of bounty schemes and hunting on the Saimaa seal population is difficult to estimate, because the size of total population before the 1960s is unknown (Hussi, 2014). As the numbers of paid bounties stayed consistently at a relatively low level, and bounties were probably paid for by-catch seals as well, seal hunting apparently continued to be more accidental than systematic in the Lake Saimaa. For instance, in Anttola the local civil guard practised shooting in the 1920s by killing Saimaa seals, with an annual catch of 5 to 10 individuals (Ylimaunu 2000, p. 282). A systematic seal hunting culture typical for marine coastal areas never developed in the Lake Saimaa (Kilkki & Marttinen, 1984). The difference with the Lake Ladoga with the latter's active seal hunting was clear. According to Kivirikko (1940, p. 47) in 1928 as many as 1385 ringed seals were killed in the Lake Ladoga. He did not mention killing of seals in the Lake Saimaa. Kivirikko (1940) further reported that seals in the Lake Ladoga were "said to" consume 5 kilograms of fish per day, and marine seals 10 kilograms of fish per day (Kivirikko 1940, p. 48).

Attitudes towards the Saimaa seal during the bounty-paying period seem to have been contradictory. Ylimaunu (2000, p. 364) claimed that while local hunters had been aware of the Saimaa seal's uniqueness, it was the active anti-predator campaign of fisheries officials that since the 1890s rooted the idea of seal's harmfulness into the local

community. However, there were many who held a more tolerant attitude towards the unique Saimaa seal. During the first period of Ilvesviita (2005) also conservationist thinking gradually emerged in Finland (Turpeinen, 1976; Vuorisalo & Laihonen, 2000). Probably due to introduction of conservation ideas and growth of ecological knowledge some professional zoologists started to question the prejudiced species classifications in hunting legislation (Renvall, 1896, 1912; Palmén *et al.* 1916). Already in 1871 a local forest administrator was aware of the small size of the Saimaa seal population and therefore recommended its protection for “at least” the following 20 years (Ylimaunu, 2000, p. 364). Biologists J. A. Palmén (see above) and J. P. Norrlin wrote about the need to protect Saimaa seals in 1905 and 1908, respectively, and 1911 Gunnar Gottberg argued that Saimaa seal should be protected due to its scientific value as a glacial relict (Ylimaunu, 2000; Hussi, 2014). These initiatives, however, had no immediate consequences.

Ylimaunu (2000) mentioned international interest in the fate of the Saimaa seal already during the 1930s. Before the Second World War there was a Saimaa seal in the Berlin Zoo, Germany, where it was advertised as a great rarity (Siivonen, 1956, p. 357). Ilvesviita’s (2005) second period in the Finnish hunting policy from 1921 to 1961 included fundamental changes in both the structure of society and the national hunting policy. The old class division in the society was seen as a threat to the future of hunting and also as a substratum of potential political critics. Lindgren (1943) wrote his game management guide for all hunters and landowners in the country, not any more for the “civilized elite”. Exploitation of nature was increasingly effective, and game was regarded as an important natural resource. Harmfulness of many predators was increasingly questioned during this period (Pohja-Mykrä *et al.*, 2012).

The first steps to protect the Saimaa seal were taken in the first years of this period. Ylimaunu (2000, p. 364) mentioned voluntary protection of the Saimaa seal in certain areas already in the 1920s. This phase has been documented in more detail by Rautiainen (1998) and Hussi (2014). After the cessation of all bounty schemes on seals in 1918 (seal hunting was considered to be economically rewarding even without bounties), the state started to pay bounties again in 1924, but this time the Saimaa seal was as a special case left out of the bounty program. Unlike other Finnish seal populations, the Saimaa population was protected due to its “rarity” until 1928, when it was again annexed to the bounty program (Hussi, 2014). This does not indicate total cessation of seal hunting in Saimaa (see above for sport hunting of seals in Anttola). Still the 10-year pause in paying bounties for killed Saimaa seals from 1918 to 1928 shows some degree of recognition of the population’s special status.

2.3 From legal protection to 1970s

According to Kilkki and Marttinen (1984; see also Ylimaunu, 2000, p. 364), after the second world war there was a temporary rise in hunting activity of seals in the Lake Saimaa due to immigration of experienced seal-hunters from the Lake Ladoga area. This peak is however not visible in bounty statistics (Hussi, 2014). For instance in 1947 bounties were only paid for 16 seals, which does not differ markedly from the average of 14 per year (Hussi, 2014). It seems that only a few dedicated hunters hunted Saimaa seals actively. One of the most active was Mr. Iiso Ollikainen from Anttola, who was said to have shot 48 Saimaa seals (17 per cent of the total seal catch 1928–1948; Kilkki & Marttinen, 1984).

Instead it seems that the population was generally considered so small that it deserved to be protected. Legal protection was granted to the Saimaa seal (and simultaneously to the raccoon dog) in the Amendment to Hunting Decree (1955). According to Ylimaunu (2000, p. 364) the Saimaa seal was legally protected due to its uniqueness and rarity. Initiators were some local game management societies and Dr. Göran Bergman, the deputy hunting inspector at the Ministry of Agriculture and Forestry. According to Becker and Sipilä (1984), reports on the rarity of seals were widespread in the early 1950s. Mr. Olavi Pylkkänen, chair of the Game Management Society in Mikkeli, made a phone call survey on fishermen's attitudes, and the conclusion was that time was ripe for legal protection of the Saimaa seal (Becker & Sipilä, 1984). Since 1952 Dr. Göran Bergman had participated in negotiations, which resulted in a local initiative for the seal's protection in 1954. Initiators were mainly from the main Saimaa area, where the attitudes towards the seal had always been most positive (Taskinen, 1991, p. 106).

Interestingly the Finnish conservationists apparently had no role in the process. During their active campaign for the establishment of the Linnansaari National Park the leading conservationists of Finland (who happened to be botanists) even failed to mention the occurrence of seals in the planned park (Becker & Sipilä, 1984). Reino Kalliola, the state nature conservation inspector, listed only habitat diversity and nesting of the osprey (*Pandion haliaetus*) as particular values of the newly established Linnansaari National Park (Kalliola, 1957). At least in the pioneering phase it was not true that "science and research have been the originators in the conservation of the Saimaa ringed seal" (Tonder, 2005, p. 83).

The 1960s was a decade of increasing interest in the Saimaa seals and their protection, and also the last decade when the seal population was actively managed to reduce damage to local fisheries. For the first time since 1930 the Finnish hunting magazines published articles on damages caused by the Saimaa seal to lake fisheries (Hussi, 2014). It is possible that the seal population had slightly increased since the 1955 protection, which may have locally increased damage reports. Marttinen and Kilkki (1984) reported that in

Pihlajavesi area seals were more hated than snakes, and were killed when encountered in spite of legal protection.

Fishermen demanded hunting permits, or alternatively financial compensation for the damage caused by the seals (Hussi, 2014). They also criticized nature conservationists, and one critic even demanded conservationists to pay 10 percent of their salaries to compensate for damages (Hussi, 2014). For the Ministry of Agriculture and Forestry the situation was difficult. Both the need to protect seals and fishermen's increasingly critical attitudes needed to be taken into account. The result, i.e. granting temporary hunting permits, was a compromise. Hunting permits were called "research hunting", and killed specimens were collected for study. In 1963 10 hunting permits were granted, in 1965 15 more, and in 1966 "more than ten" (Hussi, 2014). Originally, the fishermen demanded the right to kill as many as 41 seals each year (Hussi, 2014). Of the 15 hunting permits granted in 1965 only eight were used. None of the 15 permits were granted to main Saimaa area in the south. In 1966 all permits were granted to areas around Savonlinna (Hussi, 2014).

A source for future conflicts between fisheries and conservation was a modernization in fishing equipment. Since the 1960s traditional gill nets made from cotton were replaced by nylon or synthetic fibre gill nets. These modern nets were strong enough to catch and kill seals effectively (Tonder, 2005). Apparently the seals also see more easily a net made of cotton than one made of nylon (Becker, 1984). Due to this, drowning in nets during springtime has at least since the 1960s been the most important single cause of mortality (Becker, 1984).

According to Ilvesviita (2005) the period from 1962 to 1993 entailed radical changes in the cultural climate in Finland. Nature conservation and environmental concern emerged strongly in the society, which strongly influenced nature attitudes. The national hunting policy increasingly stressed comprehensive wildlife management and the interests of game and nature. The old division of species into useful and harmful ones was largely abandoned, at least by professional game managers and biologists.

The change was clearly visible in the Saimaa seal protection. There were both international and national pressures for promotion of seal protection. Internationally, the 1960s and 1970s were a period of 'seal wars' during which mass hunting of seals in northern latitudes became a target of worldwide criticism, and resulted in import bans for seal products in the United States and Europe (Ylimaunu, 2000). It is clear that also in Finland critical attitudes towards seal hunting in general became more widespread, which probably benefitted Saimaa seal conservation. A more scientific pressure came from the International Union for Conservation of Nature, or the IUCN. In 1966, the Saimaa seal became the first subspecies of animals to be included in the IUCN Red Data Book (Moisseinen, 1997). This meant international recognition of the fact that the Saimaa seal is the only endangered animal whose fate lies entirely in Finnish hands. In the same year

the first systematic investigations on the Saimaa seal were started by the Game and Fisheries Research Institute, under leadership of Dr. Ilkka Koivisto (Becker & Sipilä, 1984). After the onset of this research permits for research hunting were not granted any more. The research group of Koivisto was active from 1966 to 1973 (Sipilä, 1991). The first aerial census of the seal population took place in spring 1975 (Nikkari, 1975). Regular monitoring of the seal population during springtime did not however start until 1981.

The Finnish conservation movement became active in the Saimaa seal conservation in the 1970s. The Finnish Association of Nature Conservation adopted the Saimaa seal as its symbol in 1976 (Telkänranta, 2008). In the periodical *Suomen Luonto*, published by the Finnish Association for Nature Conservation, the importance of the Saimaa seal was strongly emphasized for instance in relation to planned new national parks in Kolovesi and Pihlajavesi (Lyytikäinen, 1975a, 1975b). However, the most active environmental NGO in Saimaa seal protection was until the 2000's the WWF Finland, which established its Saimaa seal research team in 1979 (Sipilä, 1991).

2.4 1980s to early 1990s

The Finnish Ministry of Environment was established in 1983. Also at the regional and municipal levels environmental administration soon gained more importance. The establishment of effective environmental administration undoubtedly promoted Saimaa seal conservation. Both regular monitoring of the seal population and long-term planning of the conservation methods started in the 1980s. The first small and temporary voluntary protection areas for seals were established in 1982 (a WWF initiative), and a proposal for the protection of Saimaa seal breeding areas was published in 1991 (Sipilä, 1991; Moisseinen, 1997). In 1992 the Ministry of Environment appointed a committee to work out a programme for conservation of the Saimaa seal. An important symbolic act was the 1993 transfer of Saimaa seal protection from the realm of hunting legislation to nature conservation legislation (Tonder, 2005).

At the general level attitudes towards the Saimaa seal and its protection were positively influenced, in the years preceding the 1995 EU membership of Finland, by the generally high appreciation of nature conservation in the society, and the rapid development of environmental administration in the 1980s. The World Conservation Strategy in 1980 classified reduction of extinction of species, subspecies and varieties as one of its priority issues. In 1987 the Brundtland's Commission report made the concept of sustainable development very popular. Global interest in biodiversity conservation eclipsed at signing of the Convention on Biological Diversity in Rio de Janeiro in 1992. On the other hand, an increasing problem in Finland was the widening gap in conservation attitudes between

mostly rural landowners and their representative organizations, and environmental movement and/or administrators (cf. Nieminen, 1994; Oksanen, 2003).

According to Sairinen et al. (1999), environmental issues became an important issue in the Finnish society in the 1990s. In the 1980s the process was still in its initial phase, but conservation conflicts started to emerge especially in response to state nature conservation programmes, that usually focused on a particular habitat type and its protection in different parts of the country. While these programs were considered as the main tool of national conservation policy, their critics considered them as illegal and even demanded cessation of conservation programmes (Salminen, 1993). One of the most controversial programs was the shore conservation programme (Nieminen, 1994). In 1990 the State Council decided that 5 per cent of the Finnish shoreline (both marine and inland) should be preserved in natural condition. The programme includes 127 locations, of which 29 represent seaside nature while 98 represent lakeside nature. The programme was vigorously opposed by landowners, their representative organizations, several municipalities and some political parties. Both the Finnish Association of Nature Conservation and Ministry of Environment linked the fate of the Saimaa seal to successful implementation of the shore conservation programme (Nieminen, 1994, p. 53).

The conflict over protection of the habitats of the endangered white-backed woodpecker (*Dendrocopos leucotos*) at the turn of the 1980s and 1990s was closely linked to the shore conservation programme, and showed the dichotomy of attitudes towards official conservation programmes. Landowners felt that their views had not been heard, and considered conservation plans as a threat to their land ownership and traditional land use practices. Many of the woodpecker's nesting habitats were located by scenic lakeshore areas. Plans to preserve these nesting habitats, partially based on the shore conservation programme, resulted to some extent in anticipatory cuttings of potential or known nesting forests (Degerstedt, 1990). Kauppi and Müller (1994) later claimed that the ambitious conservation programme may eventually have even harmed the conservation of the white-backed woodpecker. Nieminen (1994), among others, concluded that some of the problems could in the future be avoided by more open and participatory approaches to conservation planning.

The proposal for protection of Saimaa ringed seal breeding areas (Sipilä, 1991) included numerous important measures for Saimaa seal protection. As regards attitudes to protection, the proposal represented the view, supported by conservation biological data, that human action in various forms was the cause of population decline of the Saimaa seal. Human activities were thus considered as a threat that could be mitigated by restrictions. The proposal did not mention attitudes of local inhabitants or any need to implement participatory approaches in conservation planning.

Moisseinen (1997) analysed the attitudes towards the Saimaa seal from the perspective of environmental economics, primarily based on the contingent valuation method. The

purpose of her study was to provide economic information about the preservation of the Saimaa seal and to consider the role and use of this information in decision-making. She made both a national and a local survey to shed light on the indirect expressions of value the Finnish respondents place on suggested Saimaa seal conservation programme. Both surveys included a questionnaire sent to selected recipients. In the national survey, launched in November 1992, the sample consisted of 700 recreational fishermen and 1,000 'ordinary' Finnish people (age 20–69), half of them living in cities with more than 100,000 residents and the other half living in smaller cities or in the countryside. The response rate in the national survey was 60%. The national survey showed that a great majority of respondents (97%) considered that the Saimaa seal should be protected. The main motivations for protection were the idea that “Saimaa seal has the right to live and the right to a future”, and “other plants and animals and also the unspoilt nature of the area will be protected at the same time”. Saimaa seal was thus viewed by many as an umbrella species whose protection would indirectly benefit other nature values in the Saimaa area. According to Moisseinen (1997, p. 114) “the suggested costs [of protection] were most readily accepted by the respondents in the group of recreational fishermen, familiar with the beautiful nature of the Saimaa area. Residents of big cities were more willing to accept the costs than residents of smaller cities and the countryside.”

Moisseinen's (1997) local survey was targeted to people living in the Pihlajavesi area where controversies with Saimaa seal protection emerged repeatedly. 400 recipients from the area (age 20–69) were chosen randomly as recipients of the questionnaire that was mailed in September 1993. The response rate in the local survey was 56%. 96% of respondents in the local survey thought that the Saimaa seal should be protected, but the local people's willingness to pay for the conservation programme of the Saimaa seal appeared to be low. The median 50 Finnish Marks was one third of the lowest median in the national survey. Local people thus had a lower motivation for Saimaa seal protection than Finnish people in general.

To summarize attitude change from the 1960s to 1990s, the local controversy that had prevailed between the fishermen and the Saimaa seal until the 1960s developed in the following decades into a much wider controversy between local people (landowners especially) and environmental movement and administration, whose conservation plans threatened not only fishermen but the entire rural lifestyle with a strong landownership feeling and traditional land use patterns. Shore conservation programme in particular was seen as an obstacle to local plans for developing freetime housing and tourism in the area. As a consequence, it was already by the 1990s impossible to study attitudes towards the Saimaa seal separately from more general conservation attitudes, or attitudes towards specific conservation programmes. Saimaa seal had become a symbol for conservation.

2.5 EU membership to 2000s

Both national and international interests influence modern conservation. This had been obvious in the Saimaa seal protection at least since the 1960s. The international influence has gained even more prominence due to Finland's membership in the European Union since 1995 (Oksanen, 2003). In many respects, the European Union's commission has become a party of recent Finnish conservation conflicts (Bisi et al., 2007). The first of such conflicts was the Natura 2000 controversy from 1995 to 1998 that concerned creation of the Natura 2000 network in Finland. According to Oksanen (2003), the Natura controversy was the most extensive and significant conservation controversy of recent decades in Finland. However, the basic dichotomy in attitudes was more or less the same as in the shore conservation programme, analysed earlier by Nieminen (1994).

Attitudes towards to the Saimaa seal and its protection have polarized during the Finnish membership in the EU, largely due to the strict species protection requirements of the Habitats Directive and the Birds Directive, both incorporated in the new Nature Conservation Act. In case of Saimaa seal protection, strict protection requirements have resulted in tightening fishing restrictions and increasing local opposition to these conservation measures.

Tonder (2005) studied nature relationships, attitudes towards the conservation of the Saimaa seal and different factors and discourses that influence them in the area of Pihlajavesi, the same area where Moisseinen (1997) had performed her local survey in 1993. Tonder's work was partially based on the Fishing Water Owner's Profile Research Project of the Finnish Game and Fisheries Research Institute that was carried out during 1998–2003 and included 52 interviews done mainly in 1999. Tonder had participated in the project, and also in a later EU-funded project titled the Integrated Management of European Wetlands.

Tonder interviewed by semi-structural interviews people from six households in the area. They represented both local dwellers and non-local summer cottage dwellers. Tonder (2005) found that nature relationships are based on discourses of biodiversity, locality, ownership and justice that jointly influence people's attitudes towards nature conservation in general and more specifically to conservation of the Saimaa seal. According to him, the conflict of the conservation of the Saimaa seal culminated in the interests and traditional rights of private landowners, sources of information, justification of conservation measures, and wider development of the society in which urban areas (and attitudes of urban dwellers) play an important role, and rural areas are thought to have only a marginal role (Tonder, 2005, p. 9). Relying only on scientific reasons for conservation causes mistrust, political conflicts, and feelings of injustice among the stakeholders. Tonder strongly recommended taking into account in conservation planning other perspectives in addition to natural sciences. Based on interviews, he claimed that

people's awareness and knowledge play key roles in reaching a legitimacy of conservation measures. As Sairinen et al. (1999) noted with respect to the Natura 2000 controversy, ignorance of social sustainability makes implementation of conservation programmes very difficult.

3 MATERIALS AND METHODS

This study is based on 534 newspaper articles and 48 semi-structured stakeholder interviews. Below, the data is presented in further detail.

3.1 Newspaper articles

All writings published on the Saimaa ringed seal were collected for the study from two newspapers, Helsingin Sanomat (HS) and Itä-Savo (IS), during the time period 1.1.2011-31.12.2012. HS represents the leading national newspaper in Finland, with the largest circulation of 837 000 readers (Finnish ABC, 2014). The readership of HS focuses mainly on the Helsinki metropolitan area, with subscribers also in other larger cities. HS is the main reference to the national media discourse in Finland, and is commonly used in media related studies (e.g. Peuhkuri, 2002). However, assessing a highly local phenomenon (Saimaa) is not sufficiently represented via a leading national newspaper. Therefore, including a local newspaper is highly relevant for the representativeness and validity of the findings¹. IS represents this local view with 35 000 readers (Finnish ABC, 2014) mainly in Savonlinna vicinity, where also the density of the Saimaa seal population is highest. Taking these two newspapers under assessment allows us both to assess and compare the local and national level media discourse.

3.2 Interviews

The semi-structured stakeholder interviews were all conducted by one researcher face-to-face, in locations selected by the interviewee. Interviews were done between time period February 2011-August 2013, most of the interviews done during the year 2011.

The selection of interviewees was based on a combination of existing prior knowledge, purposive sampling, and convenience sampling (Lincoln & Guba, 1984; Flick, 1998; Patton, 1990). In addition, peer review was utilized in the selection of interviewees; relevant experts were consulted to identify the key informants, and cross-checking among experts was used to secure inclusion of critical cases (i.e. informants). From this perspective, the peer review interviewee selection process as such provides an indicator of the relevant stakeholders and individuals in the case. Nevertheless, we first selected the visible stakeholder and actor groups in Saimaa seal media discourse, based on

¹ Note: From this point onwards, and unless specified otherwise, we refer to validity in the qualitative methodological sense (Lincoln & Guba, 1984), and not statistically significant validity.

citations in both newspapers, and formed a stakeholder map of the relevant organizations, constituencies, and individuals (see Table 1). Half of the respondents are dependent on Lake Saimaa either for recreational or economic reasons (groups 1 and 2) and half of the respondents are connected to the Saimaa seal discourse through of their work in an NGO, academic research or public administration (groups 3, 4 and 5). The number of interviewees in subgroup 'tourism' is high (9) because of the growing importance of the tourism industry, especially eco- and nature tourism, to the Lake Saimaa area both according to the interviewees (from different stakeholder groups) and statistics (MEK, 2014). The number of interviewees in the subgroup Municipalities (regional planning and zoning) is also high (5), because of the relevance of municipalities in granting building permits in areas of importance for the Saimaa seals. Many respondents may belong to more than one stakeholder group, but the respondents were invited to the interview as a representative of one specific stakeholder group. The stakeholder groups and subgroups of the respondents as per number of representatives in each group are presented in Table 1.

Table 1 Description of Interviewees

Stakeholder Group	Group Name	Number of Interviewees
1. <i>Residents</i> : People affected by conservation regulation, recreational use of Lake Saimaa	Cottagers by the lake	3
	Locals living by the lake	4
2. <i>Industry</i> : People affected by conservation regulation, commercial use of Lake Saimaa	Fisheries	5
	Tourism	9
3. People working in <i>NGOs</i> for Saimaa seal conservation	WWF Finland	2
	Finnish Association for Nature Conservation (FANC)	3
	Other	2
4. People conducting Saimaa seal <i>research</i>	University of Eastern Finland UEF	2
	Game and Fisheries Research Institute	1
5. <i>Authorities</i>	Finnish Government	1
	Environmental Ministry	1
	Ministry of Agriculture and Forestry	1
	Metsähallitus	3
	Centre for Economic Development, Transport and the Environment, South Savo (ELY Centre)	2
6. <i>Media</i>	Pro Agria	1
	The Regional Council of South Savo	1
	Municipalities (regional planning)	5
	Itä-Savo	1
	Länsi-Savo	1
	TOTAL	

The breakdown of the interviewees is further illustrated in Figure 1.

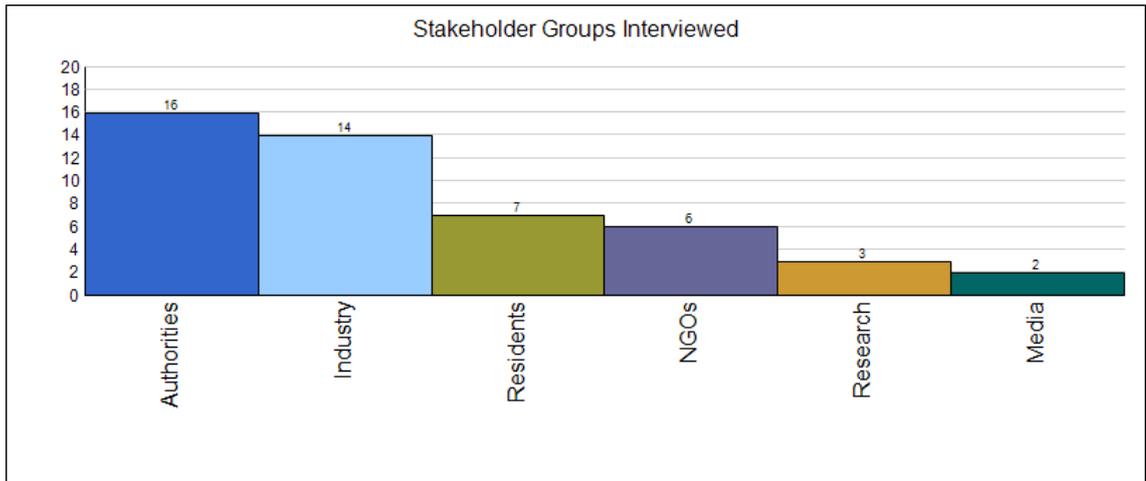


Figure 1 Stakeholder Groups Interviewed

Figure 2 demonstrates the age demographics of the interviewees. Most of the respondents belong to the age group 40-60 years. In terms of gender divide, 12 of the respondents are female, 36 are male.

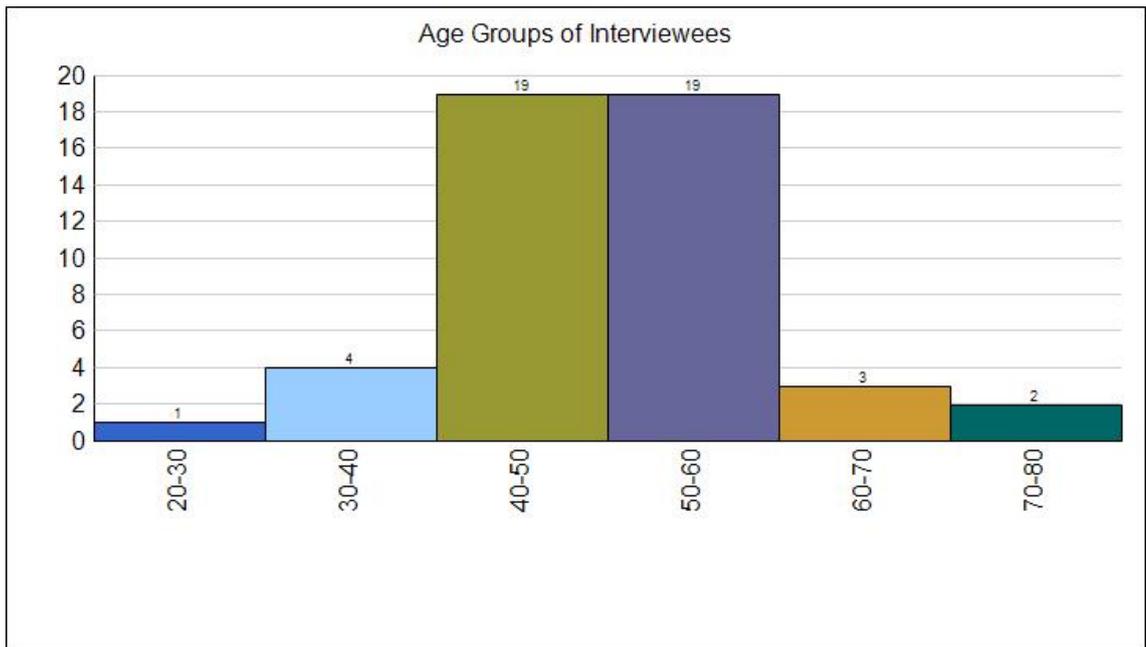


Figure 2 Age Groups of Interviewees

The interviewing method was semi-structured (Patton, 1990). This entails following a predefined semi-structured framework, which allows for the informant to take part in conversation, building on personal reflection, but within a certain predefined framework. The interviewer did not explicitly express her own attitudes or opinions during the interview. The duration of an interview was approximately 26 minutes (mean duration of the interviews), depending on the talkativeness of the respondent. The length of the

interviews varied between 7 minutes (the shortest) and 96 minutes (the longest). In total, we have 1240 minutes (approximately 20 hours) of recorded interviews transcribed with verbatim.

The interviews included questions concerning respondent's attitudes and thoughts towards 1) Lake Saimaa, 2) business and industry opportunities at the Lake Saimaa area (especially fishing and tourism), 3) Saimaa ringed seal and its conservation and conservation tools and 4) the discussion around the Saimaa ringed seal conservation. All respondents were asked same questions. See appendix 1.

3.3 Analysis methods

Both the newspaper articles and transcribed interview texts were systematically coded with the computer-assisted qualitative analysis software NVivo by two researchers. With the semi-structured interview questions guiding the analysis structure for the interviews, a wider scope was taken for the analysis of the newspaper articles. At the outset, we began with thematic coding base on inductive content analysis. The rationale for taking an inductive approach and distance to the interview themes was to allow new and emergent themes to arise, be acknowledged, and further built on in the comparative setting (Chapter 4.2.3) An inductive process is very common to qualitative research in general, where a smaller amount of data is used to identify emergent issues, as opposed to statistical analysis where a large amount of data is used to identify predefined frequencies, tendencies, and causal relationships. When the research question entails identifying the *arguments and opinions* concerning a certain topic, identifying them via a qualitative inductive process is the most viable approach.

Themes and arguments do not, however, 'emerge' from the data automatically – they have to be identified, preferably in several reiterated rounds of analysis. In the initial phase of coding the interviews, we used the questions from the interviews to guide the coding. For the newspaper articles, this structure was employed as a guide, but new themes (or nodes, as they are referred to in Nvivo) were included in the coding chart as the analysis progressed. These themes include identifying events, actors and how they are referred to, names and affiliations, contradictory statements, discursive strategies that are used to (de)legitimize and arguments, etc. Two themes in particular; (dis)trust and participation, were identified in combining the interview and newspaper material. They are among the key findings of the study, elaborated further in chapter 4.2.5.

Both the newspaper articles and interviews were classified differently. In terms of the newspapers, we classified the date, newspaper name, type of article (article, opinion, short opinion, cover story, comic, editorial, event, persons, picture/observation of a seal, or ad), stakeholder representative behind the article (especially relevant for opinions), and theme

of article. The categories for the theme were formed only on behalf of Itä-Savo, which displays a wider heterogeneity in terms of different themes, and number of articles. The themes were formed after several rounds of analysis, and each theme acts as common denominator for the entire article. The themes are further elaborated in Figure 6 later in the report. The interviews were classified according to respondent name, age, sex, date and place of interview, and the organisation and stakeholder group the interviewee represents.

In order to ensure the reliability and validity of the study, several actions were taken. Since this study builds on qualitative methods, we adopt the reliability and validity criteria developed by Lincoln and Guba (1984) to assess the quality of the interviews: credibility, transferability, dependability, and confirmability. Credibility can be assessed by evaluating how well the representations of the respondents convey and respond to reality. To put it simply, this refers to evaluating whether the respondents are telling the truth, and ensuring that the researcher understands and trusts the constructions that the respondent is conveying in his/her reply. In order to account for this, we make use of data triangulation. By including the media articles, we are able to evaluate the constructions of the respondents and make linkages between them. Both researcher and data triangulation support evaluating the transferability of the study as well, along with a full description of the data. The implications and relevance to other similar contexts will be further elaborated in chapter 5. The confirmability, i.e. how well the study can be replicated using the same methods, will be tested in practice at the second phase of the Action D4 in 2016-2017. With the help of Nvivo and frequently updated versions of the data, keeping track of coding and the different stages for replicative purposes is made easier. The extensive use of figures from the software analysis and excerpts from the original text help guide the reader in terms of the context of the data. Both peer debriefing and member checking were utilized in the project for another purpose (a book-project), but can be used to inform the confirmability of the study.

Researcher triangulation significantly increases the validity of qualitative research. Cross-checking and comparing unclear coding and interpretations is best done among at least two researchers. In addition to this, the difference in the researcher's prior and existing knowledge on the topic was utilized in triangulation. While researcher 1 conducted all interviews, together with an education background in natural sciences, researcher 2 had no prior knowledge, related education background, or previous interest in the topic. Researcher 1 conducted the first round of coding for the interviews, and researcher 2 for the newspaper articles respectively. This allowed for keeping the interview and newspaper data separate, as far as possible, in the initial phase. Only after researcher 2 had conducted the initial newspaper coding, did she begin going through the interviews. Thus, it was made sure that the interviewee's responses were not guiding or blinding the lens through which the articles were analyzed.

As every study there are several limitations to the study. The main question of validity concerns the representativeness of the respondents and the representativeness of the chosen media (Helsingin Sanomat and Itä-Savo). In terms of the interviewees, we assured that a wide variety of stakeholders was included, and relied on peer debriefing and member checking to evaluate whether all relevant actors have been included, and that the demographic profile of the interviewees was heterogeneous. The relevance and visibility of the actors can also be assessed via the coverage of individuals in the media articles. This will be elaborated in more detail in chapter 4.1.2. There might always be, however, individuals or groups whose perspective on the issue might make a significant difference to the outcome. For example, we could have had “leisure time fishermen” as a stakeholder group, which is now included in “residents”. In addition, or we could have “outsiders of the discussion” as a stakeholder group, i.e. people how are very remotely or at all related to the topic. However, we were interested in the opinion climate of the people who are *in* the discussion or who are *affected by* the issue. In terms of the interviews, one limitation is possibility for the semi-structured questions in pre-framing the discussion and shaping the views of the respondents. A question such as “Do you perceive a contradiction in the conservation discussion” may be leading the respondent to believe that there indeed is a contradiction. Also, the interaction between interviewer and interviewee affects the interview. The effect was minimized by using only one interviewer for interviews. Lastly, it is worth reminding that this study does not offer evidence for causal relationships between different phenomena, nor does it act as a statistically significant opinion poll.

4 RESULTS: ATTITUDES AND ATMOSPHERE FOR SAIMAA SEAL CONSERVATION AT THE ONSET OF THE PROJECT

4.1 Newspaper articles

4.1.1 Contents of media articles

There is significant monthly variation in the number of articles in both newspapers (see Figure 3). While there are several events overlapping, media coverage increases as the spring and summer fishing restrictions (1.4.-30.6.) approach. The year 2011 was a very intensive year in general, with the fishing restrictions being enforced on April 6th, the parliamentary elections 10 days later (April 17th), and the preparation process of the *Saimaa ringed seal conservation strategy and plan*, published on November 30th (Environmental Ministry 2011).

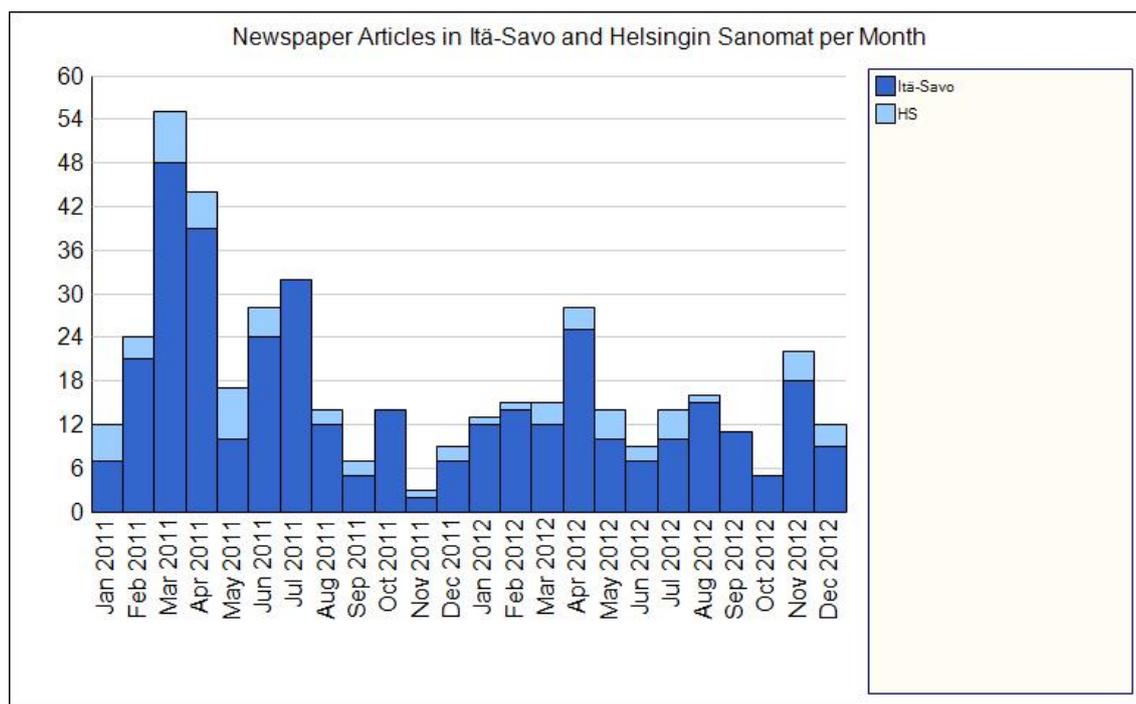


Figure 3 Number of all types of articles per month 2011-2012 in Helsingin Sanomat and Itä-Savo

The Saimaa Seal writings in the newspapers vary according to article type. We distinguish between primary articles (176 in IS and 46 in HS), opinions (56 in IS and 9 in HS), short

opinions² (45 in IS and 0 in HS), cover stories (33 in IS and 0 in HS), comics (9 in IS and 0 in HS), editorials (6 in IS and 3 in HS), events (8 in IS and 2 in HS), stories on a particular person related to the seal conservation (2 in IS and 1 in HS), individual photographs of a Saimaa Seal without any article (6 in IS and 3 in HS), and seal-related notices or advertisements (29 in IS and 0 in HS). In sum, the data consists of 276 primary articles, and 193 other type of articles in IS, while the respective figures for HS are 46 and 18. As these numbers show, there were thus 3.8 times more articles and 2.5 times more other type of articles mentioning the Saimaa ringed seal in the local newspaper compared to the national newspaper during the research period. Thus, the topic has received, as can be expected, more media coverage regionally than nationally.

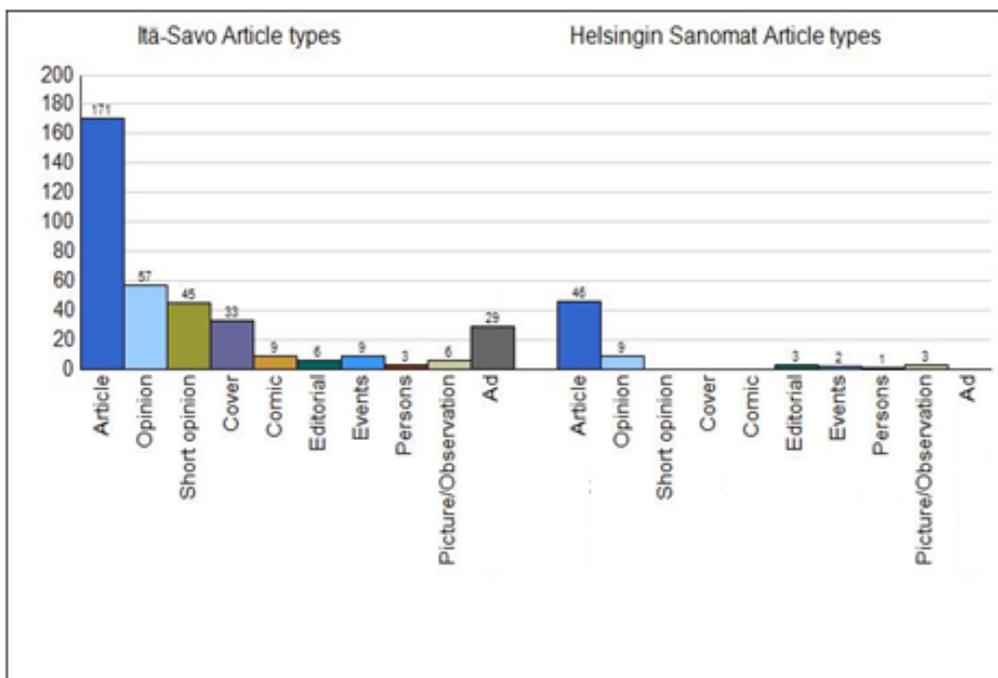


Figure 4 Breakdown of article types Helsingin Sanomat and Itä-Savo

The majority of the writings were neutral (200/469 in IS and 34/ 65 in HS), i.e. not taking clearly detectable sides in the conservation discussion, but rather portraying a somewhat equal and neutral description of a given event. This does not mean, however, that negative arguments are not quoted or otherwise reported on in the article. Being neutral in this context means that the newspaper itself or the reporter delivering the article is not portraying the article in a certain light. It should also be noted that no article is neutral in terms of the impact on perceptions and general discourse. Already the decision to report

² Short opinions include anonymous text messages and quotations from anonymous readership feedback. They are typically short in length, with only one or a few sentences.

on a certain event or matter, and relying on certain experts for statements, are anything but a neutral decision. However, for the sake of simplicity, we treat seemingly neutral articles as neutral. The content of the neutral articles will be elaborated on in more detail below.

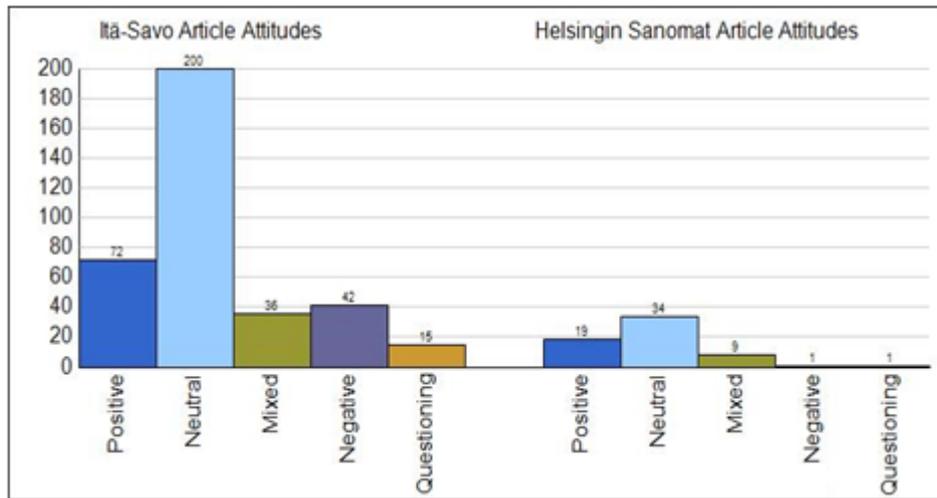


Figure 5 Attitudes of Articles in Itä-Savo and Helsingin Sanomat

In addition to the neutral articles, we distinguish between articles that were positive (72 in IS and 19 in HS), negative (42 in IS and 1 in HS), mixed (36 in IS and 9 in HS), or questioning (15 in IS and 1 in HS) by attitude. The latter three categories exhibit negative attitudes to a varying extent: *Negative articles* are characterized by a negative attitude against the phenomenon in general or towards any aspect of the Seal conservation, a “*mixed*” article contains multiple or contradicting perspectives or attitudes, and “*questioning*” articles question the conservation of the Saimaa Seal or aspects related to the phenomenon in general.

Figure 5 shows that the majority of the writings both in Itä-Savo and Helsingin Sanomat were either positive or neutral towards Saimaa seal conservation. The ratio between supporting and negative, mixed or questioning articles in Itä-Savo is 73/93, when the numbers in Helsingin Sanomat are 9/11 respectively. However, the percentage of negative, mixed or questioning attitudes from all articles in Itä-Savo was significantly higher (34%) compared to percentage of negative, mixed and questioning articles (20%) in Helsingin Sanomat.

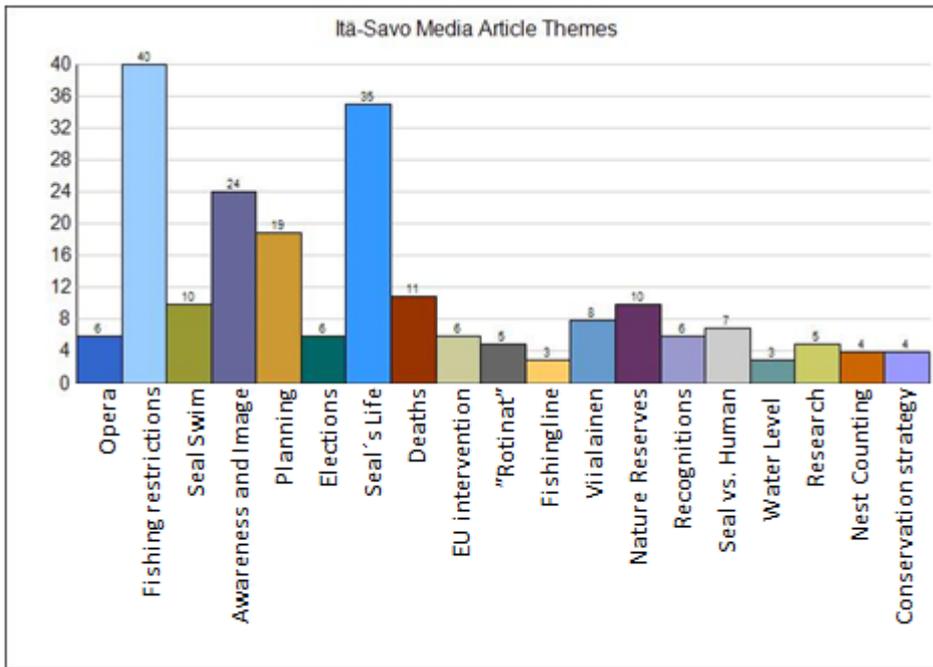


Figure 6 Itä-Savo Media Article Themes

Neutral articles typically illustrate and follow up and report on topical events. Due to the large amount of neutral articles in Itä-Savo, we categorized the articles according to theme, in order to form a general overview of the articles. The most popular themes or issues were the fishing restrictions and the fishing restriction act (40 articles), the everyday life of the Saimaa seal, including nesting and breeding habits, observations of the seal etc. (35 articles), awareness raising events and image related articles (24 articles), and urban planning related articles (19 articles). Other popular themes include the reported deaths of the seal (11 articles), the Saimaa seal swim, an awareness and fundraising event in which the Finnish reporter Kimmo Ohtonen swam the lengths of Saimaa (10 articles), the establishment of natural reserves (10 articles), the contradiction between the sources of livelihood for locals vs. the conservation of the seal (7 articles), the parliamentary elections (6 articles). Some of the themes are somewhat overlapping, e.g. the Saimaa seal opera, the seal swim event, and the “rotinat” event also represent the awareness raising and image category. However, for the sake of popularity as an event, they were separated into their own themes. It should be emphasized, that articles written by other actors, such as opinions, are not included in Figure 6. They will be elaborated on further detail below. In the following, we investigate in more detail the contents of the positive vs. negative articles in both newspapers, and also elaborate on the argumentative structure of the media discourse in general.

4.1.2 Attitudes towards conservation in media articles

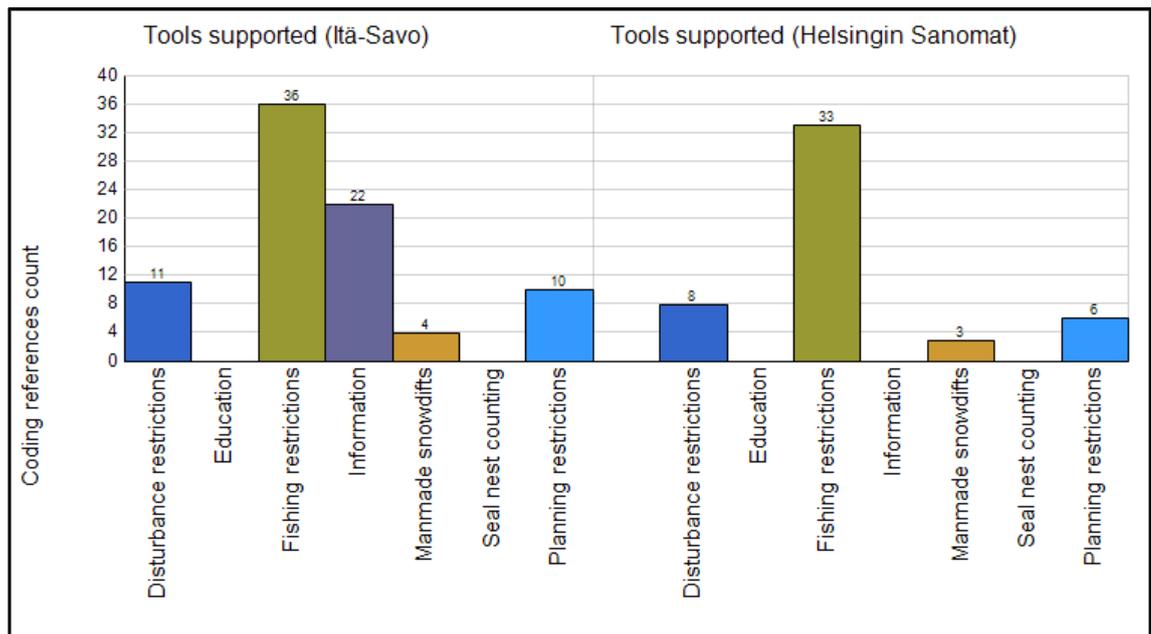


Figure 7 Comparison of supported conservation tools in Itä-Savo and Helsingin Sanomat

Figure 7 shows that the numbers of the arguments supporting specified conservation tools are nearly the same in Itä-Savo and Helsingin Sanomat, even though the number of articles in Itä-Savo is almost 4 times higher. The most supported conservation tool was fishing restrictions (36 arguments in IS, 33 arguments in HS), followed by restrictions for disturbance in the lake area (11 arguments in IS, 8 arguments in HS) and restrictions for planning and building (10 arguments in IS, 6 arguments in HS). In both newspapers, manmade snowdrifts were supported a few times (4 arguments in IS, 3 arguments in HS). The only difference between newspapers was the high number of arguments (22) supporting information and education as a conservation tool whereas in Helsingin Sanomat there were no arguments supporting that specific tool.

Interestingly, as Figure 8 shows, the numbers of arguments opposing specified conservation tools in Itä-Savo were nearly identical to the numbers of arguments supporting those same tools: 35 arguments opposing fishing restrictions, 10 arguments opposing restrictions for planning and building disturbance in the lake, and 7 arguments opposing restrictions on disturbance on the lake. However, in Helsingin Sanomat there were only 11 arguments opposing the fishing restrictions and one argument opposing the restrictions for disturbance on the lake.

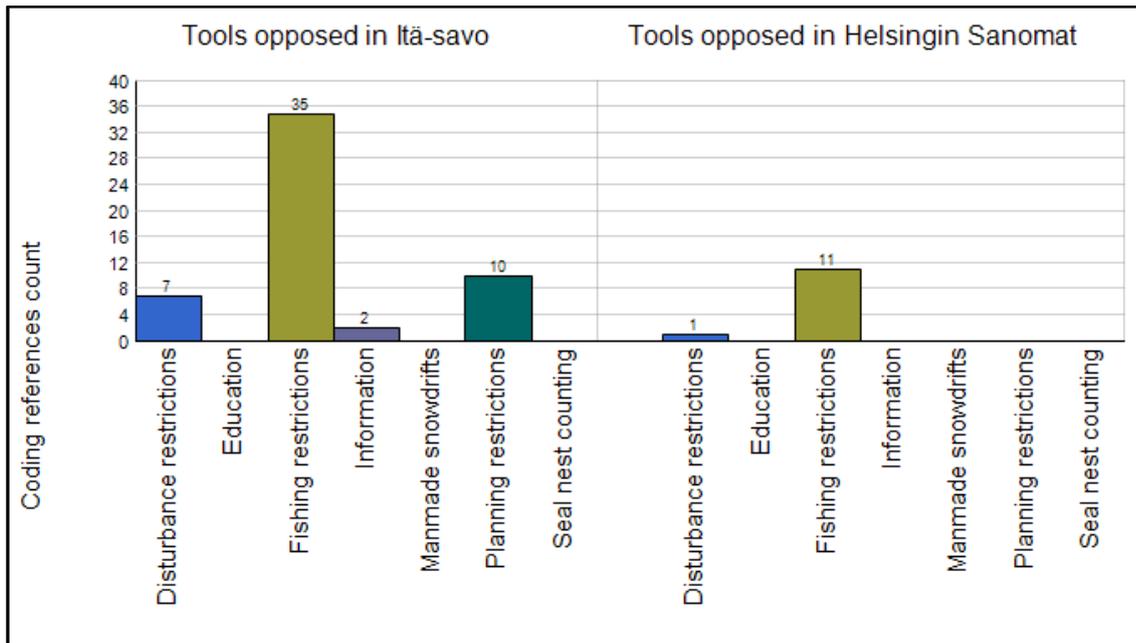


Figure 8 Comparison of opposed conservation tools in Itä-Savo and Helsingin Sanomat

In the following, we proceed with analyzing the attitudes of the articles written by different stakeholders in both IS and HS. As can be seen from Figure 9, Saimaa residents have been the most actively publishing in IS. The majority of the articles written by the residents showed negative, mixed or questioning attitude towards conservation (40/53). Also articles written by the representatives of industry (commercial fishery or tourism) show negative, mixed or questioning attitudes towards conservation (100% of the writings). The peak in positive articles by the authorities is explained by an awareness building campaign in the summer of 2011, in which residents are encourage to respect the fishing restrictions that ~~are~~ were in force at the time. As can also be seen, researchers are nearly non-existent, partly explained by the role undertaken by the authorities (mainly Metsähallitus), in speaking on behalf of researchers and research results. The activity of politicians is mostly explained by the parliamentary elections in spring 2011, where engagement is seen even from politicians whose primary concern is not necessarily expected to lie in the Saimaa Seal conservation.

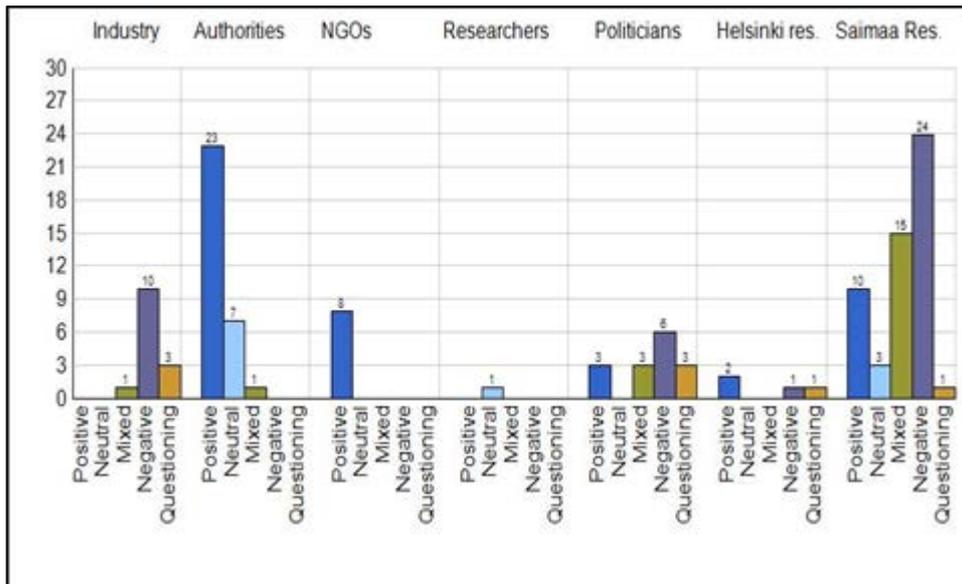


Figure 9 Attitudes of stakeholder articles in Itä-Savo

In general the opinions in Itä-Savo, as presented in Figure 10, show mostly negative, mixed or questioning attitudes towards Saimaa seal conservation (38 out of 56 opinions). Even more negative attitudes can be found in short opinions (Figure 11), where the majority of the opinions are negative, mixed or questioning (33 out of 44 short opinions). Short opinions usually oppose Saimaa seal conservation or conservation tools by indirect criticism or sarcasm, eg. *"Now that we have to protect the seal until the end of the world, could someone please explain why that pile of fur is so important. Even a ladybug is more important."* (Short opinions, IS March 31, 2012.)

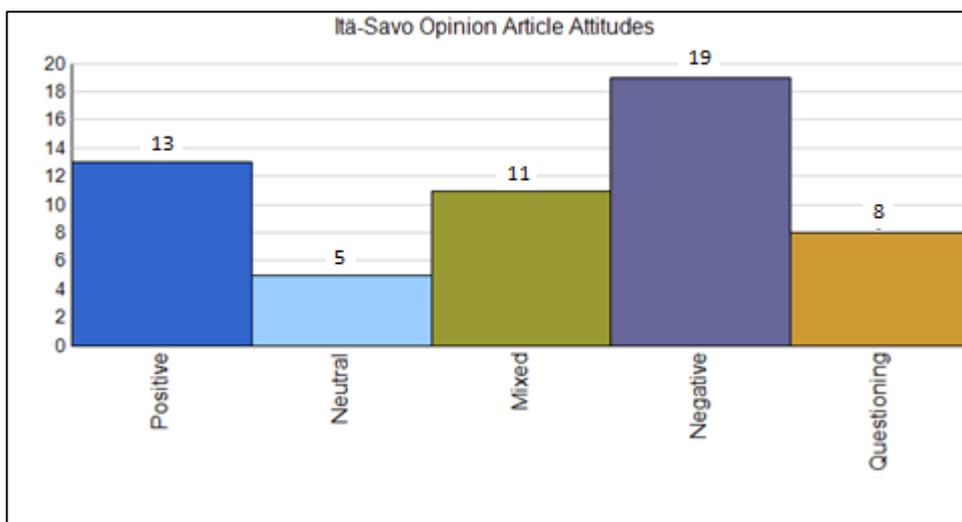


Figure 10 Itä-Savo Opinion Article Attitudes

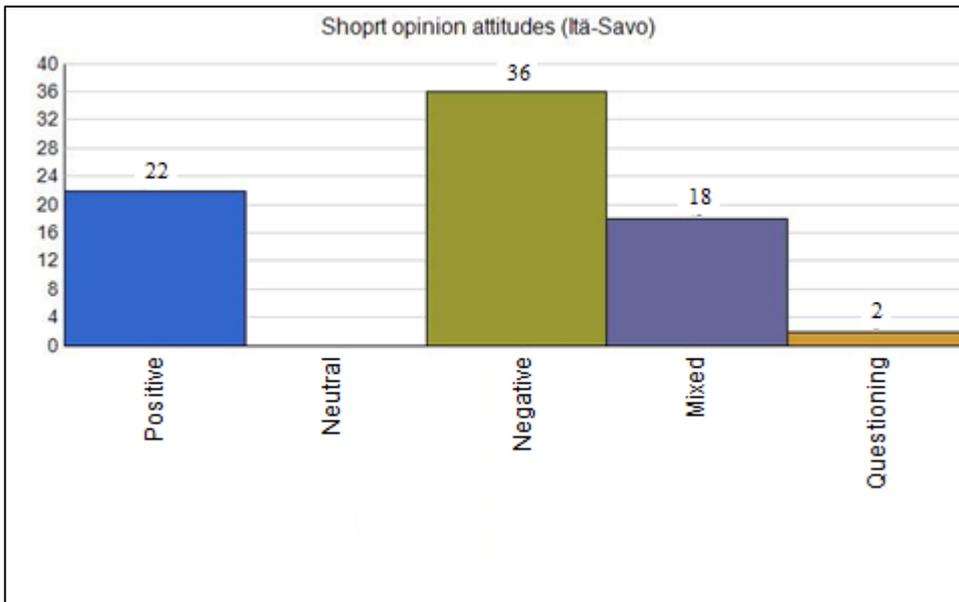


Figure 11 Itä-Savo Short Opinion Article Attitudes

The writers behind Itä-Savo opinions are distributed more evenly between stakeholders than the writers of short opinions (Figure 12 and Figure 13). Saimaa residents, Industry and Politicians (14, 13 and 12 respectively) are nearly equally represented, with also representatives of Authorities (4 opinions), NGOs (6 opinions), Helsinki residents (4 opinions) and Research (1 opinion). Almost all short opinions were written by Saimaa residents (39/41).

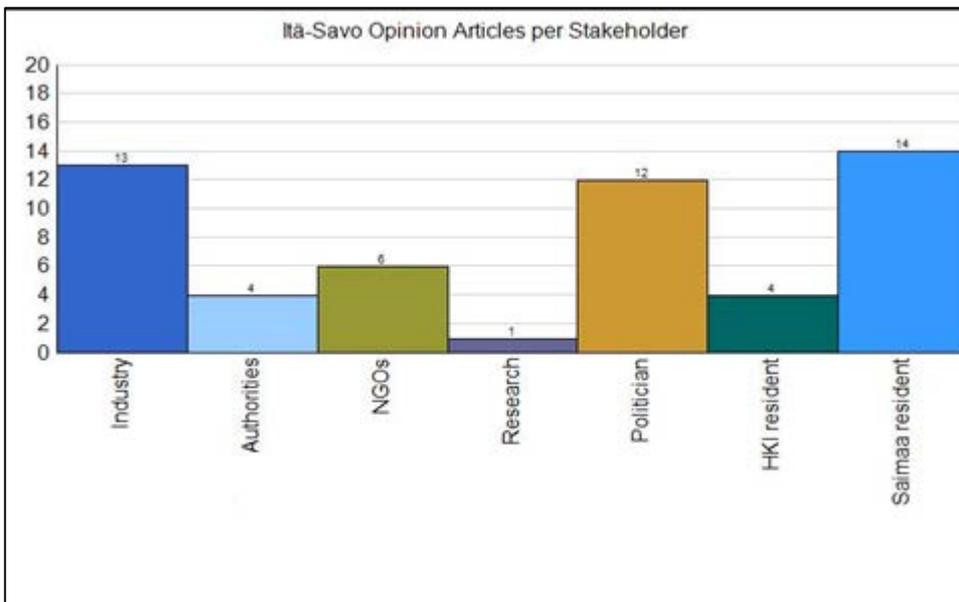


Figure 12 Itä-Savo Opinion Articles per Stakeholder

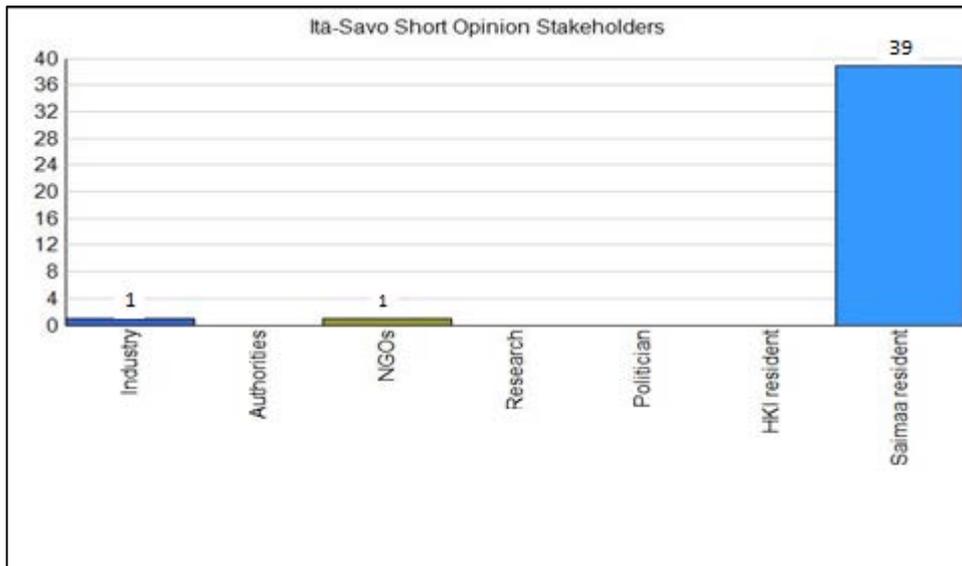


Figure 13 Itä-Savo Short Opinions per Stakeholder

Figure 14 shows, in contrast, that in Helsingin Sanomat the attitudes of opinions are mainly positive (6/9 opinions), and the opinions are mainly presented by authorities (4 opinions). There were also opinions by Helsinki residents (2 opinions), 1 NGO representative, 1 Researcher, and 1 Saimaa resident (Figure 15).

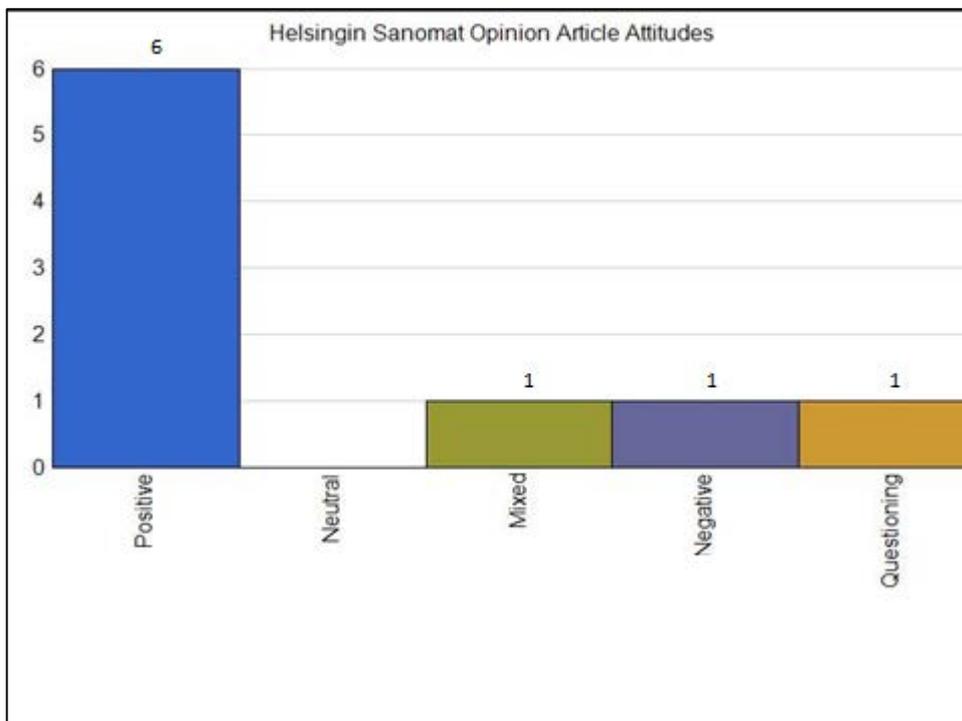


Figure 14 Helsingin Sanomat Opinion Article Attitudes

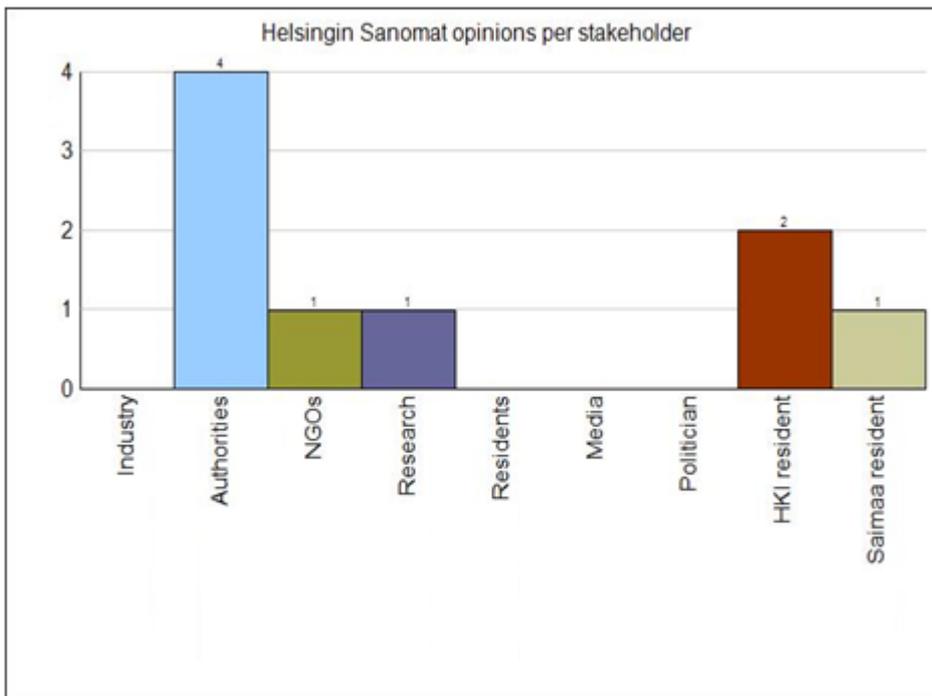


Figure 15 Helsingin Sanomat opinions per stakeholder

We further analyzed who are the most visible individuals and actors in the media discussion, as some individuals and groups may get more media coverage and hence also the opportunity to promote their ideas and attitudes to the public. The same people appeared and also dominated the publicity in both newspapers. However, in Itä-Savo the Minister of Agriculture and Forestry (-6/2011), *Sirkka-Liisa Anttila* dominated the coverage (74 mentions) with the Head of Regional Council of South-Savo (-12/2013) *Matti Viialainen* (57 mentions), whereas in Helsingin Sanomat the Conservation Biologist of Metsähallitus, *Tero Sipilä* was the most visible individual (11 mentions). *Sirkka-Liisa Anttila*'s coverage can be explained by the discussion concerning reaching consensus on voluntary agreements on fishing restrictions in spring 2011. She was strongly in support of local voluntary agreements for fishing restrictions but ultimately set the government decrees (294/2011 and 295/2011) in April 2011 to include also those areas that were excluded from the voluntary agreements. *Matti Viialainen* has been strongly supporting voluntary agreements for fishing restrictions and giving voice to local people against strict restrictions that were perceived to make the lives of the residents complicated. *Tero Sipilä* can be interpreted as giving voice to research (i.e. factual research data) and conservation biology. The other individuals visible in media are Nature Documentarist *Juha Taskinen*, Conservation Biologist at Metsähallitus *Tuomo Kokkonen*, Fishery Manager at South Savo ELY Centre *Jorma Tiitinen* and Fishery Advisor at Pro Agria South Savo *Harry Härkönen*.

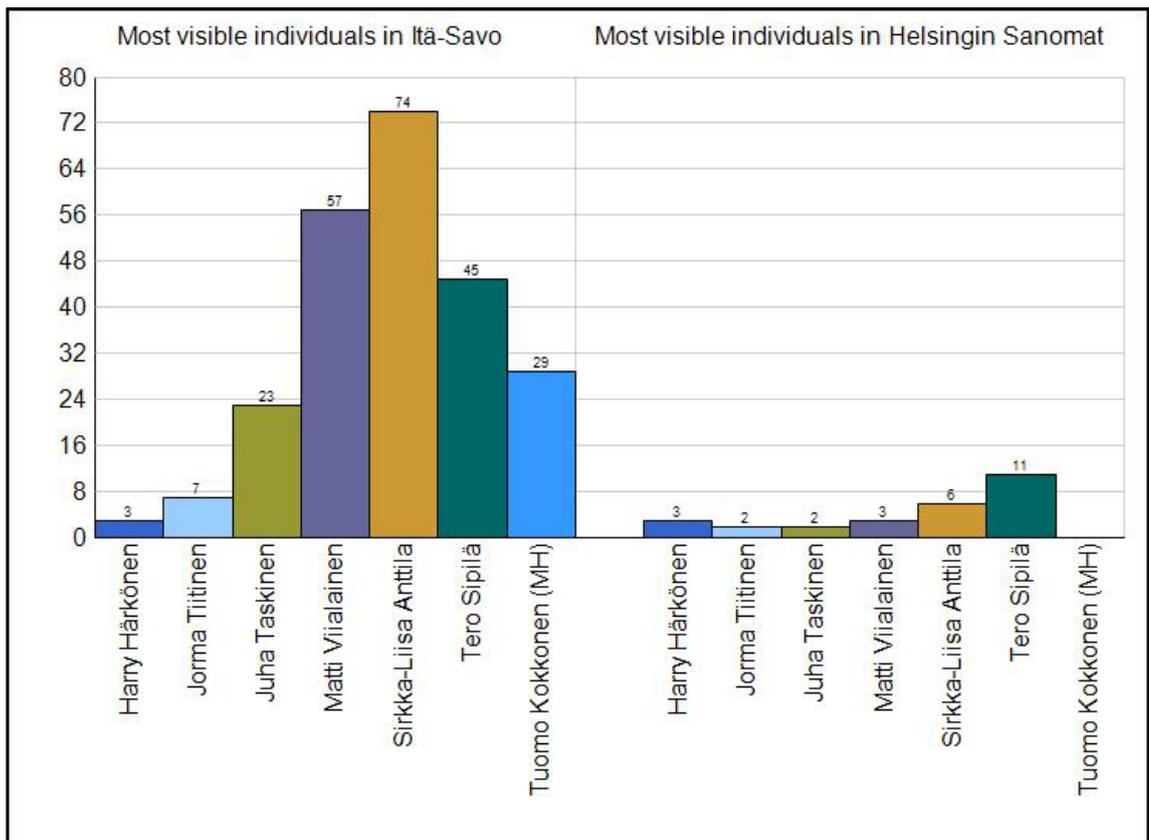


Figure 16 Most visible individuals in Itä-Savo and Helsingin Sanomat

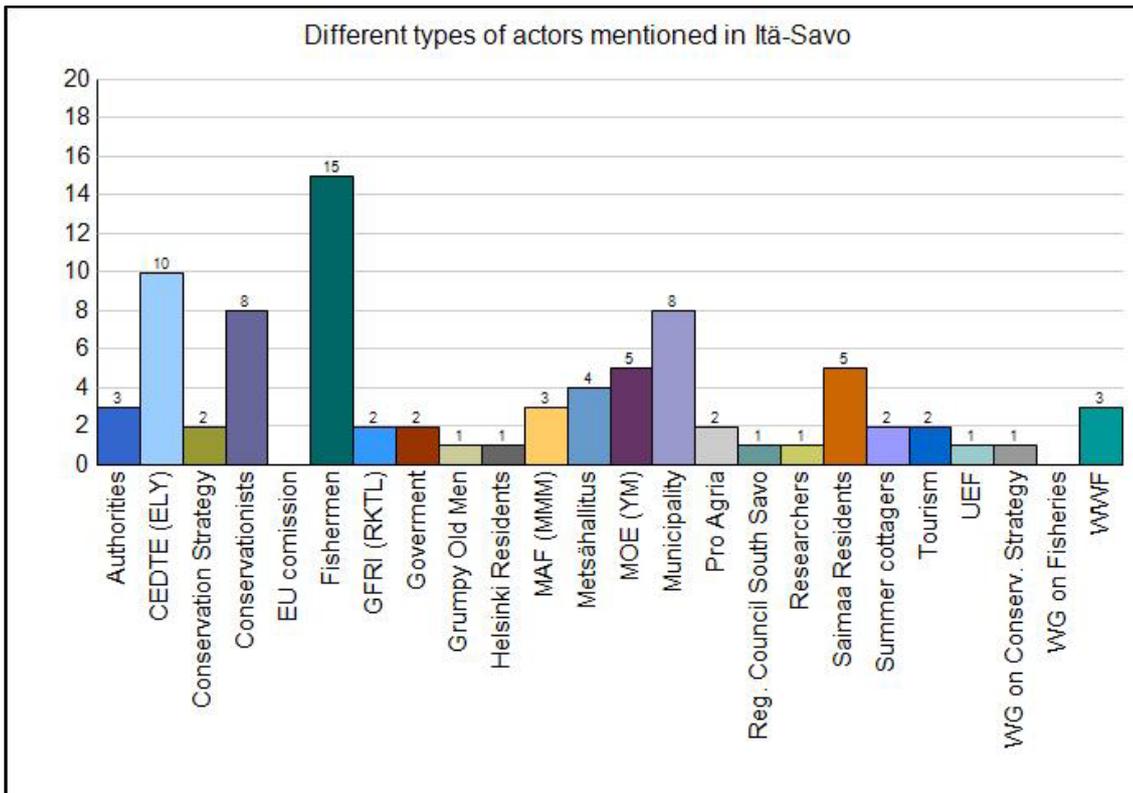


Figure 17 Different types of actors mentioned in Itä-Savo

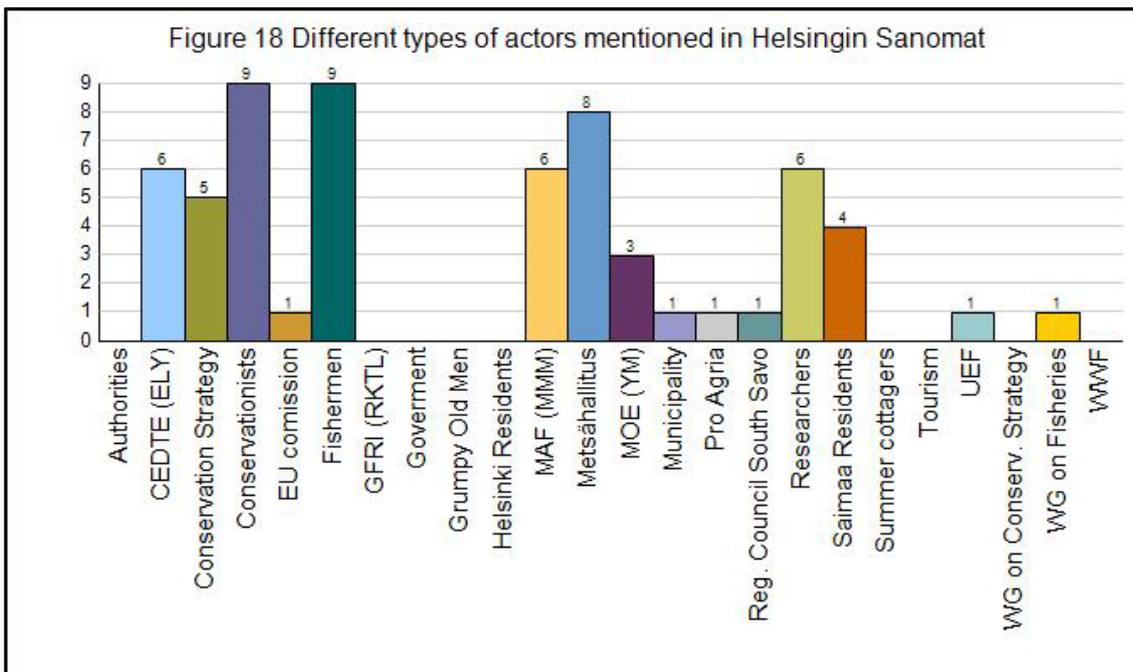


Figure 18 Different types of actors mentioned in Helsingin Sanomat

As can be seen in Figure 17 and Figure 18, the most common reference group in Itä-Savo are *Fishermen* (15 ref.), *the South Savo ELY-centre* (10 ref), *City and/or Municipality* (8 ref), *Conservationists* (8 ref.) and *Saimaa residents* (5 ref.). In this

grouping *Fishermen* refer to both recreational and commercial fishery, and *Conservationists* refer to all ‘green minded’ actors regardless of political or organizational affiliation. Terms used for this “*Conservationists*“- reference group include also “radicals”, “radical/fanatic conservationists”, and “city greens”. The reference count in the figure is restricted to one observation per article, which is more representative of the overall distribution of references. In Helsingin Sanomat *Fishermen* and *Conservationists* were the most common reference groups (both with 9 ref.), followed by *Metsähallitus* (8 ref.), and *Researchers, Ministry for Agriculture and Forestry*, and *South Savo ELY-centre* (all with 6 ref.).

The unclarity of roles is apparent in the newspaper data. Agency and group identities can be mismatched or unclear. For example, ‘fisherman’ as a group is very heterogeneous. It includes individuals who fish commercially and non-commercially. It also includes individuals who come from fisherman families, are current land-owners, or who used to be fisherman, and now own a summer cottage at Saimaa but live in Helsinki. The same unclarity of roles appears also within the group “conservationists”. It may include individuals from NGOs and from Research but also individuals representing Authorities, if they are speaking for Saimaa seal conservation. While in the interviews, this unclarity can be controlled for, the ‘voice’ in the media discourse remains somewhat undefined. Thus, as these examples illustrate, the roles that individual refer to and undertake for themselves, is a complex phenomenon.

4.2 Interviews

In this chapter we aim to identify the arguments and frequency of arguments by the representatives of different stakeholder groups, used to oppose or support Saimaa seal conservation in general, and the arguments used to oppose or support the conservation tools. We revert to the combined examination of media and interview perspectives in chapter 4.2.3. Contradiction between the actors, and associated distrust, are one of the most prevalent themes in both the media discourse and interviews. In chapters 4.2.4 and 4.2.5 we identify contradicting groups and how the trust or distrust is argued and by whom. The reader should note that the selected citations from the interviews in the following chapters are representative examples of certain types of arguments.

4.2.1 Arguments supporting and criticizing current conservation

The interviewees were asked whether the Saimaa seal should be protected in the current situation and why so/why not. Figure 19 shows how different arguments related to

conservation are divided between stakeholder groups. The most of the opposing arguments towards Saimaa seal conservation are presented by Industry group (8/23 arguments) although most of the representatives of the group presented supportive arguments (10/23 arguments). In addition, 5/23 arguments were neutral towards conservation. Respectively, the majority of the other stakeholder groups presented supportive arguments towards current Saimaa seal conservation (Authorities 8/16, NGO 4/4, Research 2/3, Residents 3/6, Media 1/1). The coexistence of numerous arguments demonstrates in particular how the views on conservation are conditional and contradictory. The same respondent may state both supporting and opposing arguments on conservation, especially in the industry group. In the following sections, we elaborate this in further detail.

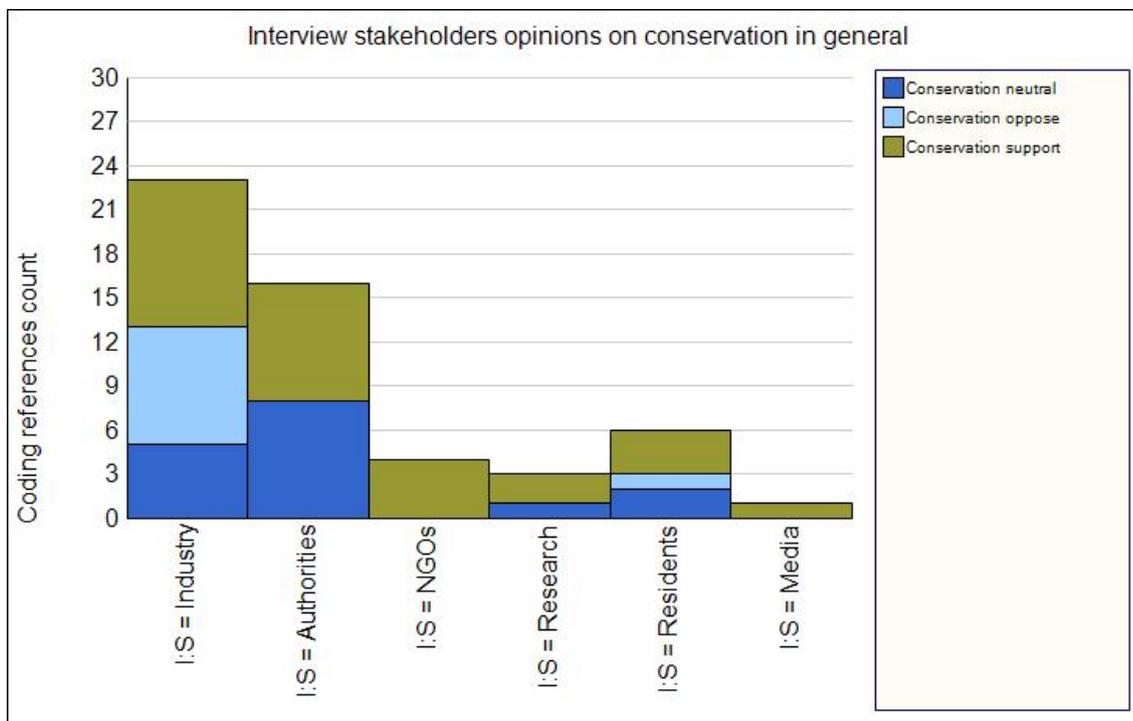


Figure 19 Interview stakeholders opinions on conservation in general

One of the most common arguments to support Saimaa seal conservation was the seal being an indicator for the entire Lake Saimaa ecosystem.

”For me, the Saimaa seal is a symbol of a functioning system: as long as we have the Saimaa ringed seal, we can say that we have living Saimaa” (NGO 1)

”The Saimaa seal means biodiversity, it is the indicator of wellbeing for the nature of Saimaa” (NGO 2)

Some respondents were worried about the national image and conservation capacity, if we would not be able to protect the symbolic species for the nature conservation.

”The extinction of the Saimaa seal would be an enormous loss. It would be an image loss for us Finns, and a sign that we are unable to uphold the balance of the ecosystem, in collaboration with each other. It would also be a personal loss for me” (Authority 1)

”If we are unable to safeguard such an impressive species such as the Saimaa seal, we will lose credibility and ability to safeguard other species, such as old forest beetles, which are less sympathetic than the Saimaa seal.” (NGO 3)

There were also more philosophical arguments on the responsibilities of our own species to take care of the other species and nature.

”When you realize that the struggle of the Saimaa seal is caused by us humans, it makes me feel ashamed for my own species” (NGO 2)

”We humans should take care of the underprivileged and endangered. I feel that it is the measure of the humanity, how the Saimaa seal can live and survive with us.” (NGO 4)

None of the interviewees had negative arguments towards Saimaa seal per se. The neutral or opposing attitudes were mostly arguments on seal population growing steadily when no further conservation is needed:

”The evidence is clear; the population is vital and grows steadily.” (Authority 2)

”For the time being, sufficient measures for conservation have been undertaken.” (Industry 1)

Most of the local respondents had personal experiences with Saimaa seals, and especially people who live by the lake and fish frequently see seals on regular basis. The arguments on the “*seal population being vital*” are justified based on own experiences of seal observations:

“I see seals every day [...] The estimates of seal population are undercounted, no one can calculate the accurate number as the seals spend 95% of their time under the water.” (Industry 2)

It is also often argued that the conservation discussion neglects the local people, whose voices are not being heard – the Saimaa seal is put before the people.

“Saimaa seal is sure to be protected but what about these people who have lived by the lake, together with the seal for hundreds and thousands of years? No one is thinking of them.” (Resident 1)

In addition to criticizing the current extent of the conservation and exaggerated concern for the Saimaa seal, most of the local respondents agreed that the contradiction in the Saimaa seal discussion was not a matter of *whether* the seal should be protected, but rather *how*:

“It is not a question of whether the seal should be saved, it is a matter of how.” (Industry 1)

In the following section, we concentrate on the arguments supporting and criticizing the selected conservation tools.

4.2.2 Arguments supporting and criticizing current conservation tools

The interviewees were asked about their attitudes towards the current tools used for Saimaa seal conservation. The interviewer did not provide predefined options to elaborate on. Instead, the interviewees were free to elaborate on options of tool in the order they deemed fit. As Figure 20 shows, most of the respondents supported fishing restrictions (28 arguments), followed by information and education (17 arguments), restrictions for planning and building (13 arguments), and restrictions on disturbance (14 arguments).

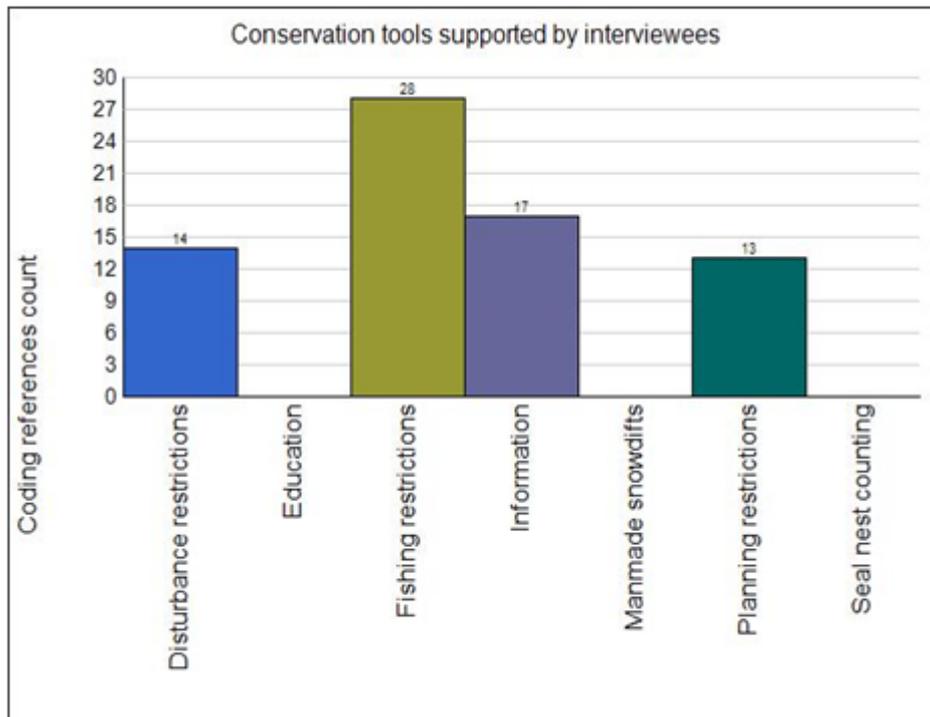


Figure 20 Conservation tools supported in interviews

As stated above, fishing restrictions is the most supported and judged viable as a tool for conservation. The strongest arguments in favor of fishing restrictions are exemplified in the following excerpts:

There is no question about it; gillnet fishing is the biggest threat for the Saimaa seal. It kills seals the most. The most important tool to protect the seal is to end fishing activities that are dangerous for the Seal.” (NGO 1)

Regulation of fishing is practically the only tool for seal conservation (Authority 3)

The most extreme arguments were in favor of banning gillnet fishing in Lake Saimaa altogether, at least for the time being:

Maybe we should terminate gillnet fishing for a while, let’s say for 5 or 10 years and give fishing permissions only for professional fishermen (NGO 1)

Fishnets should be forbidden for 15 years in the central Seal areas in the Lake Saimaa (NGO 4)

In Central Europe they do not know anything about gillnet fishing. That is why it is possible that the EU may ban gillnet fishing without asking anything from us Finns. (NGO 3)

Somewhat surprisingly, the importance of education and information received second place as the most supported conservation tool, especially among local respondents. This includes awareness building through information and engagement.

The respondents also expressed their concern on growing building, planning and zoning activities that will reduce the amount of seal haulout- and breeding sites. The support for planning restrictions is exemplified in the following NGO representative remark:

We need to see to that there is enough free coastline for Saimaa seal nests and resting rocks, so that the species can breed and live. (NGO 1)

According to Figure 21, the arguments opposing current conservation tools were mainly directed towards fishing restrictions (19 arguments). Arguments criticizing restrictions to mitigate disturbance in and around the lake (3), restrictions for planning and building (3) and spread of information and education (1) played a minor role. As Figure 22 shows, the fishing restrictions were mainly opposed by industry sector (tourism and fisheries) and by some authorities.

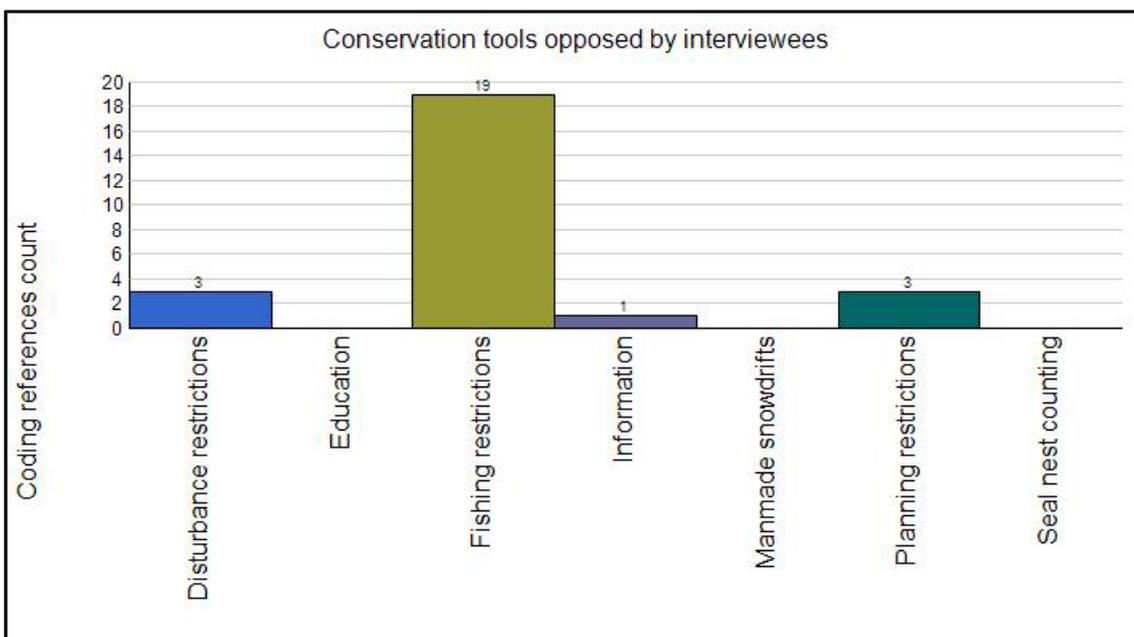


Figure 21 Conservation tools opposed by interviewees

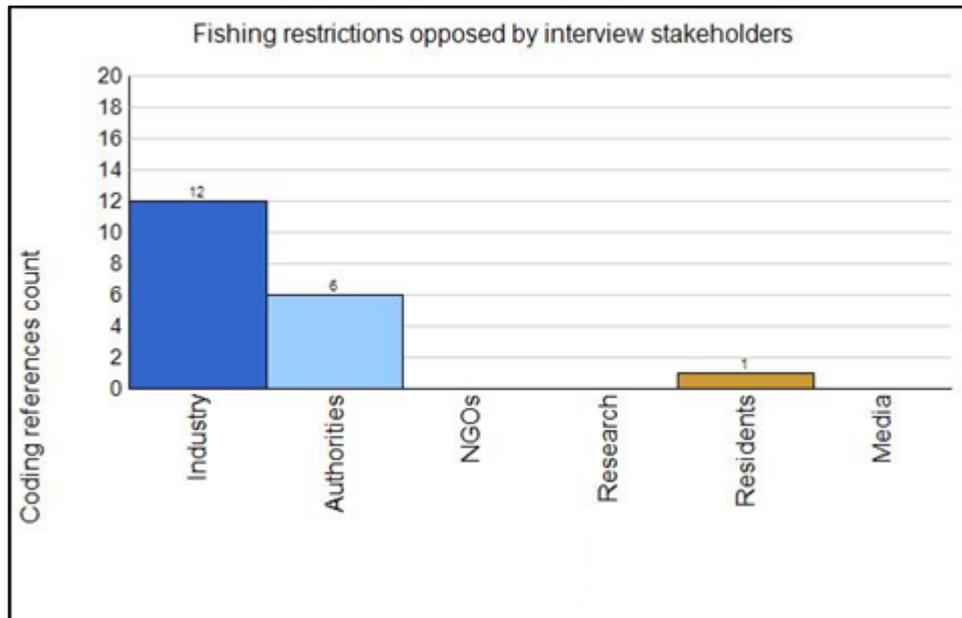


Figure 22 Arguments opposing fishing restrictions by interview stakeholders

The arguments opposing fishing restriction build on the view that the need for the restrictions to begin with are questionable. As the following excerpt exemplifies:

"The impact of netfishing has been over-emphasised". (Authority 2)

The most common reasoning for the previous argument was the thousands of years coexistence of human and seal in the Lake Saimaa, by 7 respondents representing mostly residents (4) but also industry (2) and authorities (1). This argumentation is exemplified by the following resident:

Both the gillnet fisher and the seal fit in this lake. Man has been fishing in this lake for 6000 years with gillnets and still both species co-exist.
(Resident 1)

People also explain their unwillingness to change their fishing habits, by questioning the efficiency and rationale of the alternative fishing methods:

"The reason why I have not changed the fishnet to a fish trap is because the fishnet is such a better tool for fishing. If the catch would be nearly the same with fish traps compared to fishnets, I would change to fish trap immediately". (Resident 1)

It is also important to note that a notable reason for criticism during the time of interviews (mainly done in 2011) was the struggle between voluntary and legislative regulation on fishing and the focus of criticism is to a large extent on the government decrees (294/2011 and 295/2011). For example most of the respondents representing Industry criticized the acts:

”These recent decrees were exaggerated, insane. [...] If only few tens or hundreds of hectares are protected with decrees, there is no sense at all. Common sense should be used when planning these decrees.” (Industry 2)

In addition to the requirement of *“the use of common sense”* the arguments criticizing legislative regulation justify their arguments by saying that locals are not heard. This is argued to being a source for resistance. Interference with personal freedom in a command-and-control manner are also exemplified in the following excerpt:

”People do not like that they are told what to do or not, especially when they feel when they have been deceived. For example if a water area owner has given voluntarily 95% of his water area for conservation and the 5% is taken by force [government decree 294/2011].” (Authority 2)

“We tried to hang on to the voluntary conservation tools, because Finns only put their fist into the pocket when there is threat of force.” (Authority 4)

Locals also feel that the information that is spread via media criticizes both fishermen and locals and portrays the as the cause of distress for the Saimaa seal.

“The given information [on the Saimaa seal] blames fishermen and that hurts local people living by the lake, especially the older people, who are fishing because fish is the surplus for their daily bread. These people are so angry that I do not wonder if they would like to shoot the seal when faced with it.” (Industry 2)

Regulation of transportation, planning, construction and other activities by the lake (on shores) also gained critical arguments. These arguments were also justified by local knowledge on seal’s behavior, which questioned the relevance of disturbance to begin with:

”One winter our snowmobile route was only 5 meters from a seal nest and despite this, a seal puppy was born [in that nest]. Maybe they [the seals] know me or whatever was the reason, they did not care about my disturbance”. (Industry 2)

”Sometimes conservationists are too straight-laced and are conserving the immunity of the seal. There has always been and will be human activity by the lake and I do not believe that the seal feels disturbed like the conservationists say” (Authority 5)

Competing needs for use of land was also raised as an argument against planning restrictions:

”How could we save the seal with planning and zoning? We should also do other things with zoning, like grant permissions for building by the lake shore and build boat harbours, for example”. (Authority 6)

The interpretation and application of *Act on planning and construction (132/1999)* in municipal planning was also a cause of criticism:

”I feel that the act [Act of planning and construction 132/1999] is interpreted too strictly in South-Savo. Authorities should use common sense. [...] When the local landowners hear the comments [on private land conservation because of Saimaa seal nesting areas] of South-Savo ELY Centre, their anger will be targeted towards the Saimaa seal, not the authorities like it should be” (Authority 7).

In sum, while fishing restrictions rise as the most prevalent finding in the support and opposition for conservation tools, the counter arguments center on issues related to alternative use of land, the questioning of the accurateness or sufficient level of conservation tools. These opposing arguments indicate a contradiction between stakeholder groups, which will be presented in the chapter 4.2.4.

4.2.3 Comparison of the conservation tools supported or criticized in media and interviews

Figure 23 shows which conservation tools are mainly criticized in media an interview data. The same tools (fishing restrictions, restrictions for planning and building,

restrictions to mitigate disturbance and use of lake) are criticized in Itä-Savo and in interviews. In Helsingin Sanomat there was only criticism towards fishing restrictions and one argument opposing restrictions to mitigate disturbance.

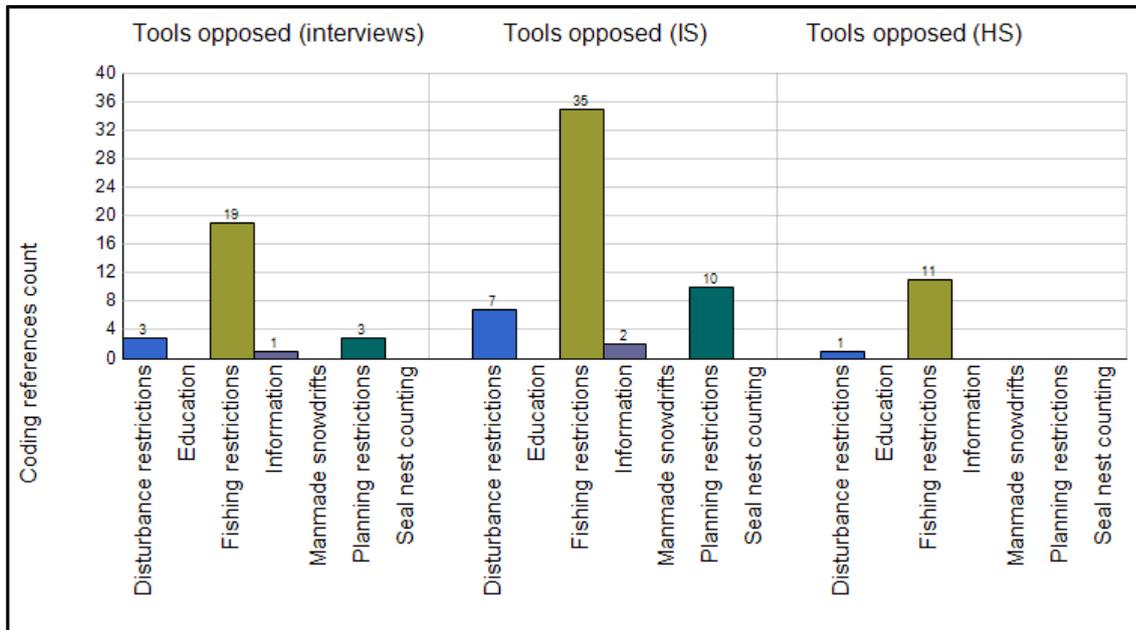


Figure 23 Conservation tools opposed in all data sources (media and interviews)

Fishing restrictions are the most supported conservation tool in both the interview and media data (Figure 24). Interestingly, both interview data and Itä-Savo support education and information as a conservation tool. This is something that is not visible in Helsingin Sanomat. Both newspapers also support manmade snowdrifts as a conservation tool, and this is not visible in interview data.

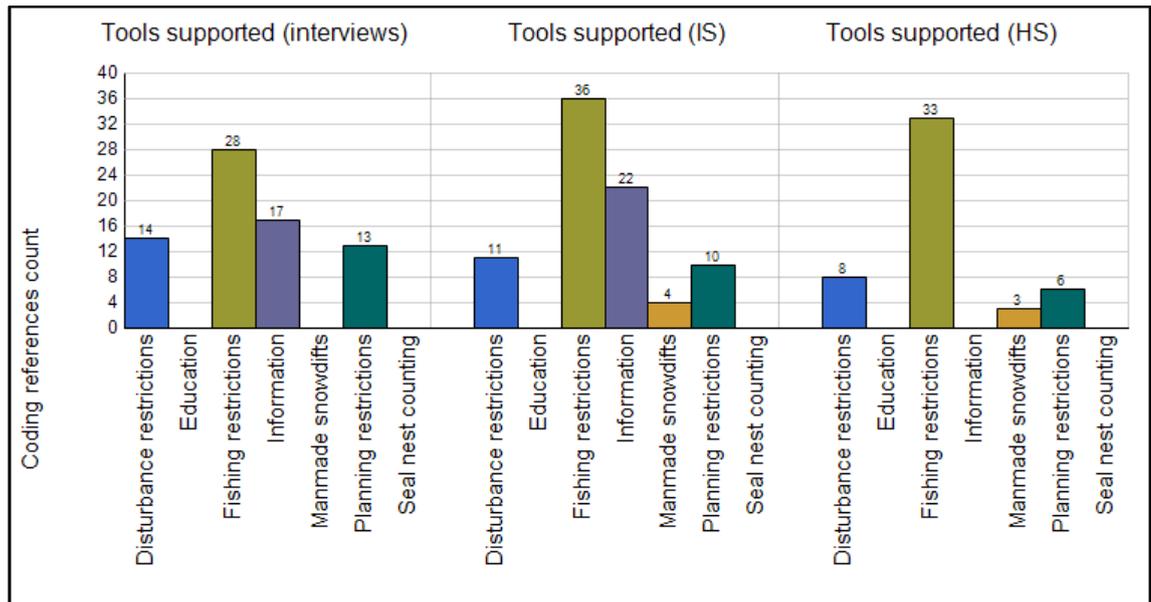


Figure 24 Conservation tools supported in all data sources (media and interviews)

4.2.4 Contradiction and distrust between stakeholder groups in interview data

The interviewees were asked if they perceive a contradiction in the conservation discussion and if the answer was ‘yes’ (in every case N= 48), the following question was ‘Who are the contradicting groups in the discussion’. As Figure 25 shows, there is a lot of variation on how respondents defined the contradicting groups. The mostly mentioned party in contradiction was Conservationists (34). The contradiction was mostly seen between Locals and Conservationists (17), followed by Fisherman and Conservationists (16). The Figure 28 shows how often different groups mentioned the contradiction between conservationists and fisherman /locals. Especially respondents representing Industry (local tourism and fishery) argued mostly that conservationists are the opposing party for themselves (locals and fisherman).

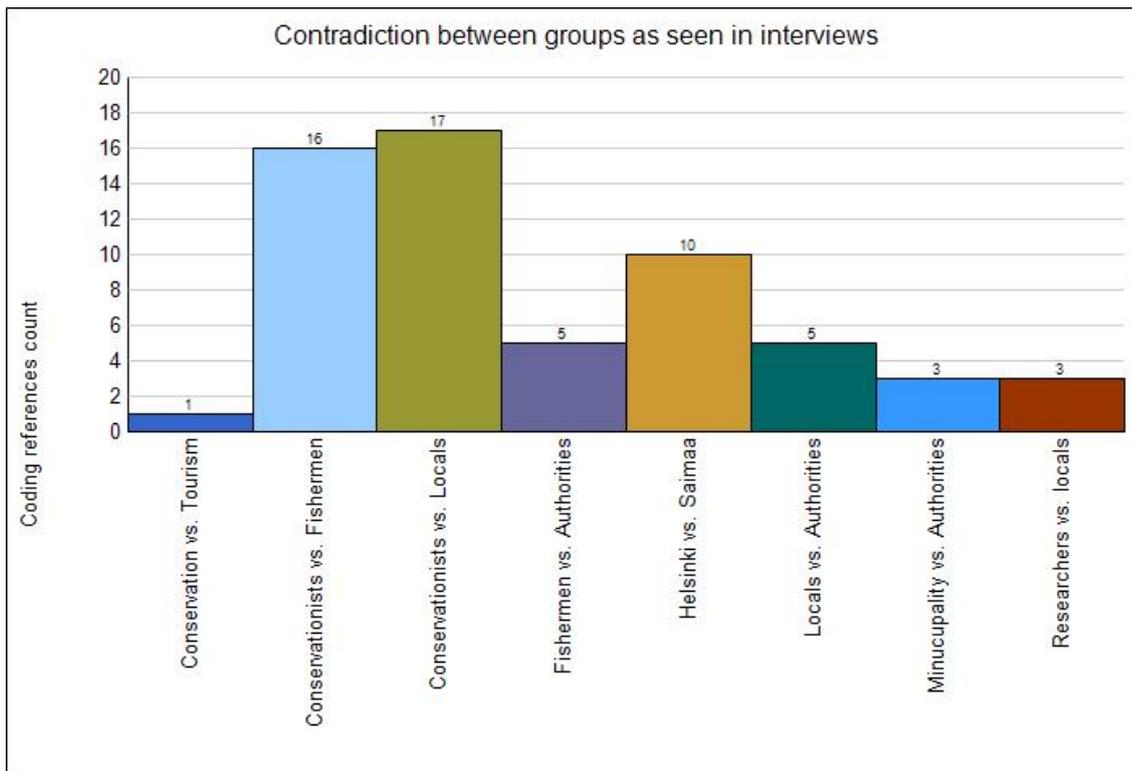


Figure 25 Contradiction between groups as seen in interviews

Conservationists is a wide definition including many other names also like "vihermieliset" – the green minded, "viherpiiperöt" – tree huggers , "viherpuolue" – green party, "luontoihmiset" – nature people" and representatives of authorities (mainly Metsähallitus), Academic Research and Conservation NGO's who regulate everyday life by the lake in the name of Saimaa seal conservation. For example roles of different NGO's are not clear, as the example comments below show:

"The Finnish Association for Nature Conservation is a too radical actor, they do not have any respect for the locals, who are the actual nature people". (Industry 1)

"There is a clear storyline: always when a dead seal is found, whatever the cause of death, WWF calls for complete all-year-round banning of gillnet fishing in the entire Saimaa area. That is the only medicine they offer". (Resident 1)

"The Finnish Association for Nature Conservation (FANC) are the extreme conservationists together with the Finnish Nature League. The view of FANC is that regulation by force is the only way to handle things,

they do not understand the concept of voluntary conservation at all. In contrast, the view of WWF Finland has been very sensible. They understood from the very beginning the importance of the concept”. (Authority 4)

“Every Spring you can see an army of cars with WWF logos. It is like “militia” and they drive here around and no one knows what they are doing here. But they do legal work because someone is paying salary for them.” (Resident 3)

The contradiction is reflected by the arguments of distrust in the interview and media texts, which we focus on in the following chapter. In the meanwhile, if we break down the industry interviewees perceptions on contradictions, we can see that the contradiction appears largely between conservationists and fishermen (9 coding references), conservationists and locals (8), the residents of Helsinki (whoever they may refer to) and locals (6), fishermen and authorities (1), and locals and authorities (1) (Figure 26). Thus, the sources of livelihood, as interpreted via tourism and fishery, are being seen in conflict with conservation.

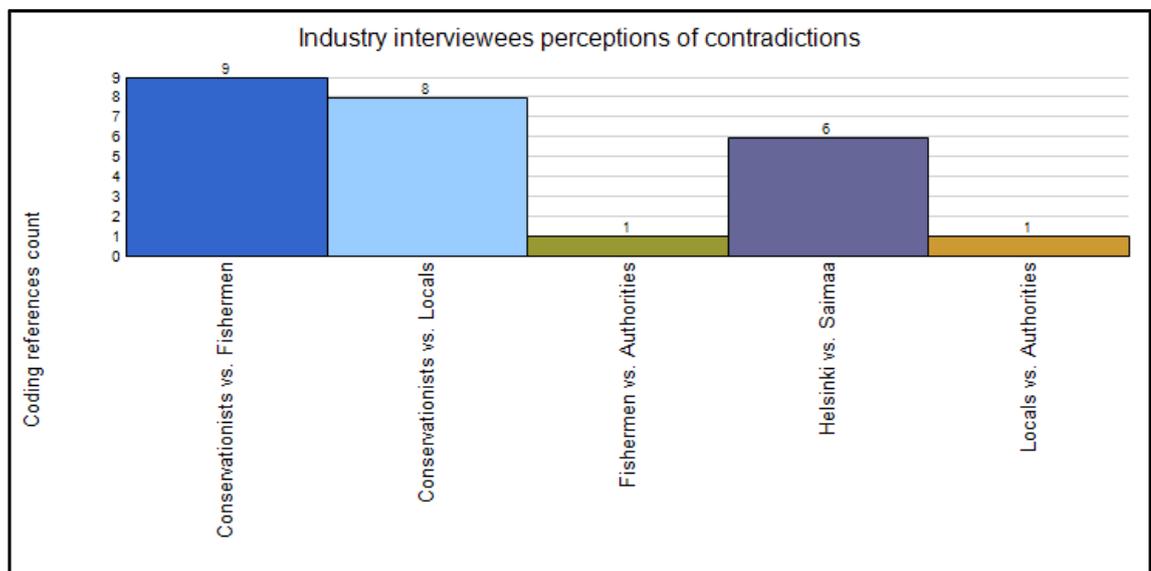


Figure 26 Industry interviewees perceptions of contradictions

This is further illustrated by Figure 27, in which the contradiction between these groups is described among all interviewee stakeholder groups, in which industry perceptions clearly dominate (17 out of 33 coding references).

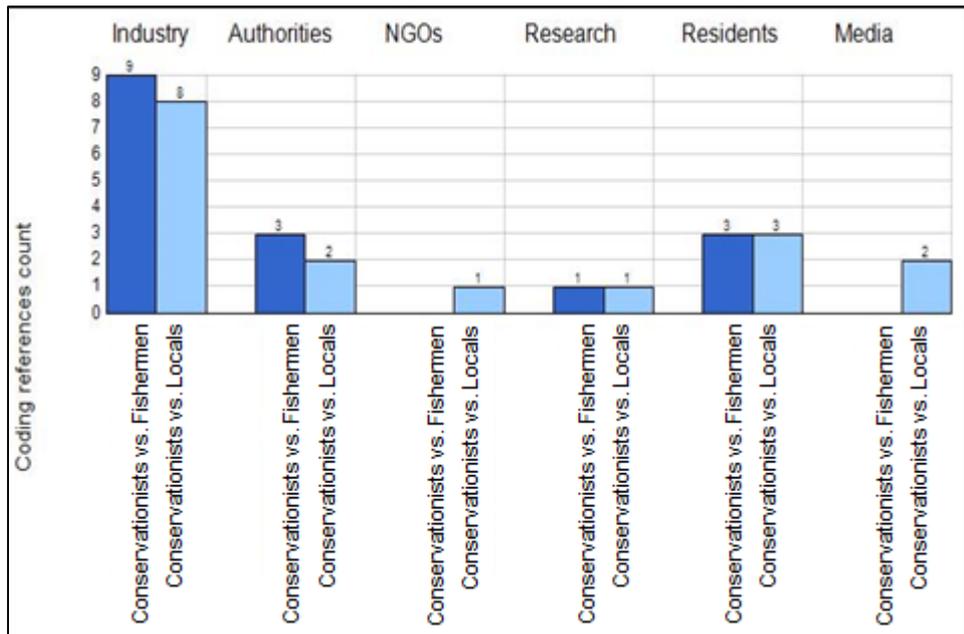


Figure 27 Contradiction between conservation vs. locals/fishermen by interview stakeholder groups

4.2.5 (Dis)trust as a common denominator

The counter argumentation on Saimaa seal conservation (tools) affects contradiction between stakeholders and reflects distrust that is visible in media and especially in interview data. There are clearly less arguments of trust (Figure 28) than distrust (Figure 29) towards central stakeholder groups. Interestingly, there were mostly arguments of trust towards *locals* in all data sources (Interviews 20, IS 3, HS 8 coding references) and mostly arguments of distrust towards *authorities* (Interviews 64, IS 16, HS 18 coding references) and *researchers* (Interviews 8, IS 15, HS 2 coding references). However, these arguments of trust or distrust are only slightly visible in media data, whereas strongly visible in interviews where the respondents had the opportunity to criticize contradicting stakeholders. The somewhat bigger numbers of distrust arguments in Itä-Savo are explained by the negative opinions and short opinions. However, the most interesting about the peak in distrust arguments towards authorities in interview data is that most of the distrust is directed towards *other authorities*. This is a particularly interesting finding in terms of governance of nature conservation. We further elaborate on this in chapter 5.

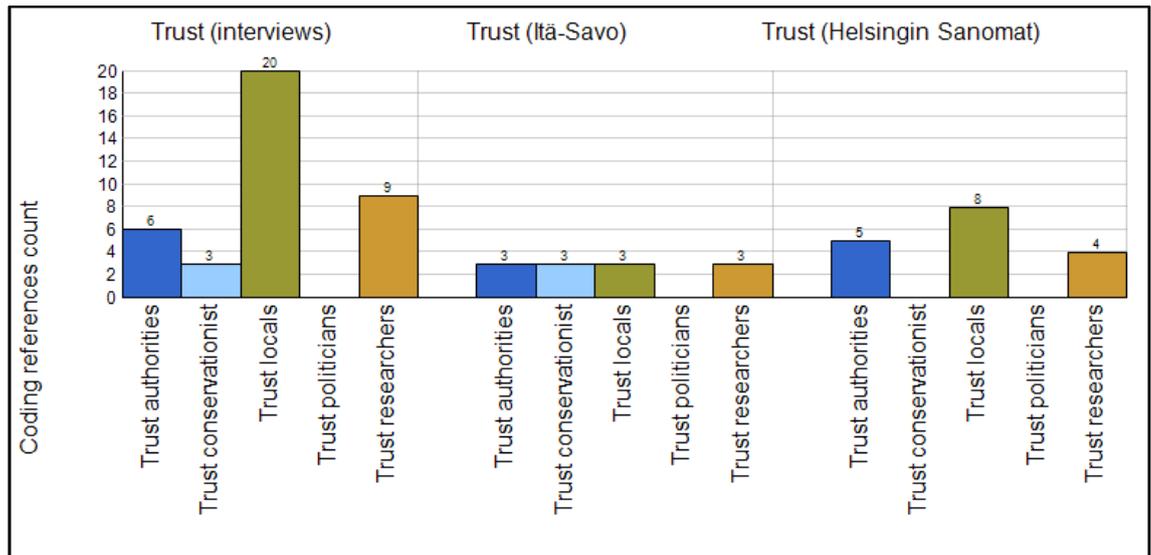


Figure 28 Trust arguments towards different stakeholders in all data sources (Interviews and Media)

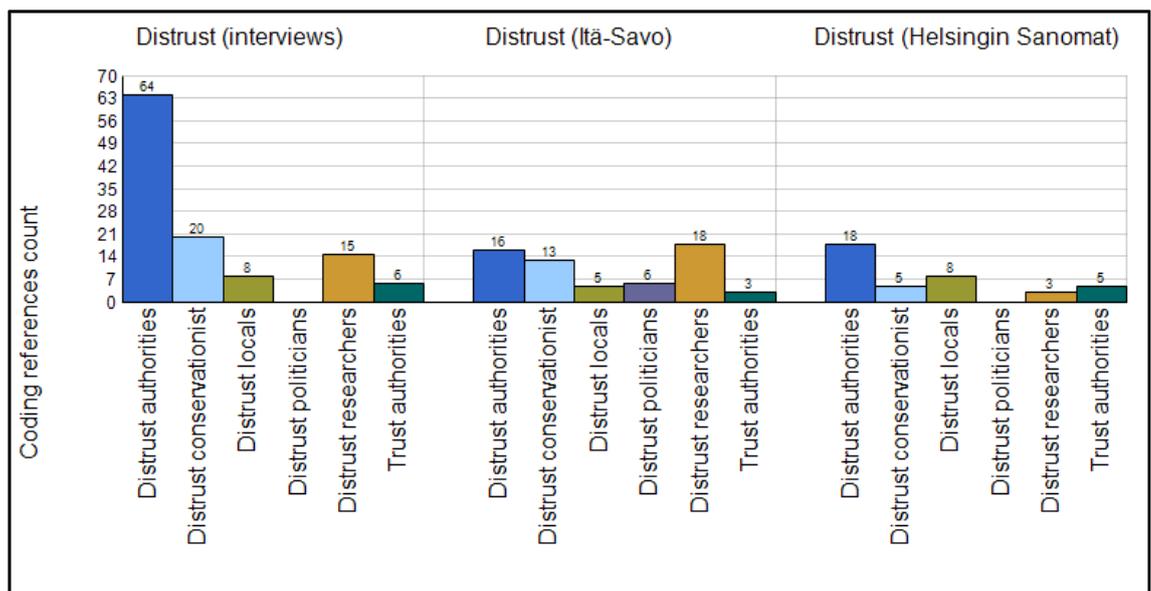


Figure 29 Distrust arguments towards different stakeholders in all data sources (Interviews and Media)

As distrust seems to be behind the contradiction and criticism, we now focus on the different kinds of arguments of distrust in interview data. One of the main categories concerning distrust is targeted towards the conservationists.

“There is one weird thing in Finnish conservation discussion: some people think that they are more right with their opinions than other people. --- In regard to tolerance in Finland, I must say that the Finnish environmentalists are the less tolerant people.” (Authority 4)

One other common argument implies that those protecting or studying the life of the seal were motivated mainly by financial incentives:

”Of course, some conservationist can make a living out of this issue [seal conservation] but in those cases we’re dealing with gross exaggeration”.
(Authority 6)

Similarly, many arguments built on the notion that researchers are hiding facts and there is lack of transparency in the conservation discussion.

”Somehow I feel that there’s a lot of secrecy involved. The researchers at Metsähallitus are not willing to publicly disclose information. However, things are getting better.” (Authority 7)

“There is so much secrecy involved. Researchers do not talk about the accidents they make. Many seals have died in their [researcher’s] hands. Especially the radiomonitors are dangerous for the seals and may cause fatal tangling in gillnets.” (Resident 3)

The seal was also seen as an instrumental tool for conservationists to push forward land and water protection:

”The extreme conservationists are deciding on conservation areas and using the Saimaa seal as a reason even though it has nothing to do with the seal itself” (Industry 1)

The notion of locals failing to have their voices heard and being communicated to the wider discussion on the societal level is also often recognized in the arguments:

”We have lost the media discussion ten to zero/nil” (Authority 2)

Unbalanced power relations in terms of basic rights between the researchers and locals was also perceived as a source of discontent:

”Local people are allowed to move on the lake during winters only by creeping. But when Spring comes, out storm the researchers with their hydrocopters and do whatever they want”. (Resident 4)

The distrust can be explained by the perceived non-existent possibilities of the local people to participate in decision making and conservation practices.

“The local people should have been taken into conservation process from the very beginning. Now they just have been told that this and this kind of decision has been made. This has escalated into terrible distrust. [...] The people living in Saimaa archipelago do not trust researchers or ”Misters of the South” [authorities from the capital of Finland] at all.” (Resident 1)

The representatives of NGOs, Research and part of Authorities (the representatives of “conservationists”) also exhibit distrust. For example according to the following excerpt the reason for the contradiction is the different levels and quality of knowledge:

“It may sound mean but there are people who know and people who do not. Those who do not know, form their opinions purely based on rumours”. (Authority 3)

The majority of the negative statements by “conservationists”, especially of the respondents within the Research and NGO categories, were directed towards one person; the Executive Director of Regional Council of South Savo, Matti Viialainen. Respondents felt that he had been the driving force for the present contradiction:

”The Executive Director of the Regional Council of South Savo personified in this discussion and sought publicity for the contradictions. He appeared in public with statements on how bad the different regulations were for the region. I feel that it was incomprehensible, as the Saimaa seal is the biggest nature attraction for tourism in the entire Saimaa area.” (NGO 1)

”The Executive Director of the Regional Council of South Savo brought to discussion his self-confidence and politicking in a way that he somehow could agitate the local people .” (Research 1)

The most common arguments of the respondents in stakeholder groups residents and industry expressing distrust and power struggle were those claiming that people living far away from Lake Saimaa, “*who have never seen a seal*”, are making the decisions (in Helsinki, Brussels or somewhere else than in Saimaa area):

"The further away people live from the Saimaa area, the easier it is to protect the seal" (Resident 1)

"I have a message to the office workers in Helsinki: Hello! Please make room for some common sense as well!" (Industry 3)

"When the European Union officials like Sirpa Pietikäinen or Satu Hassi are continually preparing their petitions, it makes one think that do they really know these issues better in Brussels?"(Resident 1)

The central theme that rises in all negative arguments regarding the conservation in general or conservation tools is the struggle between scientific and local knowledge:

"In Finland we think that truth is what has been shown scientifically. This goes for the Saimaa seal conservation discussion as well. Local knowledge is not respected and the official truth is based on scientific research. That is one important reason for contradiction." (Resident 5)

The below reasoning by a local resident compellingly illustrates how the struggle between local and scientific knowledge may result in distrust and disrespect, which in turn may turn into active criticism and contradiction.

"When local knowledge is undermined by scientific research, it results in distrust towards scientific research. As decisions are based on scientific research, this results in distrust towards authorities. Local people feel that decisions are made based on false information, which results in disrespect for decisions." (Resident 5).

Such a vicious circle, a negatively self-enforcing chain reaction can well be described as a scenario worth avoiding. With this challenge spelled out, we offer our conclusions on the findings, and reflect upon the questions raised in light of future research.

5 DISCUSSION

It is more than a 100 year journey from the Saimaa seal being categorized as a pest to the present where Saimaa seal is the national symbol of the nature conservation. The purpose of this study was to investigate the present status of attitudes and atmosphere towards Saimaa seal conservation. In order to achieve this, we have analysed the historical development of concern for the Saimaa ringed seal from prehistoric times to the present. Drawing from 534 newspaper articles and 48 semi-structured stakeholder interviews, we raise the following findings as most relevant to the ongoing societal discussion on the topic, the Actions that include intervention in the LIFE project, and the future of Saimaa seal conservation. The Discussion section follows the structure of the study. We first reflect on the findings of the newspaper articles, followed by the findings of the interviews. We then offer a conclusive discussion based on both data sources, and reflect on the implications against the historical background presented in Chapter 2.

First, it is worth emphasizing that according to both media and interview data, the Saimaa seal conservation and present conservation tools based on scientific knowledge are widely supported both nationally and locally and across all stakeholder groups. The same result is also found in the current survey (Taloustutkimus 2013), where 96% of the respondents (N=360) living by the Lake Saimaa feel that Saimaa seal conservation is important, and 80-90% of the respondents supported the main conservation tools (restrictions for fishing, disturbance on the lake, planning and construction by the lake). However, the focus in this study is on the contradiction that still exists. Although the general attitudes towards Saimaa seal conservation are positive, the Saimaa seal conservation requires support especially from those groups who share the same habitat with Saimaa seal and whose livelihood and every day activities are regulated and influenced by Saimaa seal conservation.

The topic (Saimaa ringed seal) in general and contradiction therein is markedly more visible in the regional newspaper Itä-Savo (IS) with 469 articles, than in the national newspaper Helsingin Sanomat (HS) with 65 articles. There is also more diversity in terms of article types and content in IS, and more monthly variation caused by special events related to the seal. Wider coverage in IS can, however, be expected. The Saimaa region is where the locals live, and the measures taken to protect the Saimaa seal have highest relevance and impact on the locals who to a large extent execute these measures in practice. Thus, IS coverage on the Saimaa seal is wide, which can be argued to have an influence on the overall public perception of the issue. According to the recent survey (Taloustutkimus 2013), 65% of the respondents living in South-Savo area (the area where Itä-Savo is red, N=112) indicated that the newspaper is the most important source of information on the Saimaa seal. On the other hand, the fact that there is a relatively wide coverage on the topic in HS speaks on behalf of the national relevance of the topic.

In terms of the number of arguments concerning conservation tools, it is noteworthy that the support for fishing restrictions is equally high in both newspapers, although the volume of seal related articles is considerably higher in IS (469 articles) than HS (65 articles). The opposition or critique against conservation tools, and negative articles on the topic in general, are notably lower in HS. The source of negative arguments is mainly in the opinions and short opinions of IS (of which most have negative or criticizing attitude towards Saimaa seal conservation or conservation tools), and they are mainly presented by local residents, representatives of industry, and local politicians as candidates in the parliamentary elections. In fact, the only negative opinion on the issues in HS is presented by a Saimaa local resident – not by a Helsinki or other regional resident. Our interpretation of this is that although the majority of IS articles are neutral, or bring forward multiple perspectives, the opinions act as a channel for the local people to express their views and concerns.

The newspapers differ in other respects, as well. One observation of this is the argumentation for the importance of information and education as a conservation tool. Support and emphasis on this tool is prevalent in both IS and the interviews, but in HS this is missing altogether. One explanation for this is, yet again, is the local perspective; since the Saimaa seal is protected locally, it is ever more important that information on the topic is up to date, transparent and relevant, and reaches local people.

This brings us to the question of who is actually speaking, who is behind the ‘voice’ in the media discourse. In terms of individuals, we see that the Minister of Agriculture and Forestry (-6/2011) Sirkka-Liisa Anttila and the Head of Regional Council of South-Savo (-12/2013) Matti Viialainen receive wide coverage in IS, whereas conservation biologist Tero Sipilä from Metsähallitus receives the highest number of references in HS. Therefore we argue that individuals matter. While there are numerous details to the coverage of these individuals, one interpretation is that the perspective of the locals was, although from different angles, become communicated via and in connection with reportage on Sirkka-Liisa Anttila and Matti Viialainen. The discussion on voluntary vs. legislative conservation, before Minister Anttila gave the government decrees (294/2011 and 295/2011), is largely behind this coverage. Conversely, Tero Sipilä can be seen as representing an objective and scientific evidence-based voice on the issue, and this type of coverage is more associated with HS. Helsingin Sanomat shows relatively more positive arguments towards Saimaa seal conservation and conservation tools than Itä-Savo, which indicates preference to scientific knowledge.

Moving from the individual level more to the organizational level, we find many organizations representing a wide variety of stakeholders. Particularly in IS this is characterized by the visibility of numerous types of actors, especially various authorities. In addition to a multitude of actors, some stakeholder groups have very vague borderlines. For example, the difference between locals and fishermen (the most refereed actor group

in both newspapers) is at times difficult to differentiate, because these roles typically coexist in one person. Similarly, the group of ‘conservationists’ is very heterogeneous. It can mean anything from conservation biologists providing scientific research to radical NGO activists. As a result, we find an *unclearness of roles* that obscures agency and actorhood. A very concrete example of this unclearness are the opinion articles, in which actors and organizations are erroneously referred to as being responsible for certain conservation measures (e.g. who is responsible and engages in the counting of the Saimaa seal population). The same unclearness of roles is also clearly visible in interview data. We see this unclearness of roles impacting the second main finding of our study, which is *distrust*. We revert to this theme later in the discussion.

What needs also to be noted is that discussion politicized strongly and Saimaa seal turned as a ‘political animal’ before the parliamentary elections in the spring 2011, when many politicians wrote opinions about Saimaa seal, especially in Itä-Savo. The election polls under the elections also had questions on Saimaa seal conservation and according to the poll more than half of the elected members of the parliament voted for strong regulations for gillnet fishing (Helsingin Sanomat 20.4.2011). It was also speculated that the popularity of the Central Party (that has been seen as the party for the people living in the country side) might have decreased in South-Savo in 2011 because the Minister of Agriculture and Forestry Sirkka-Liisa Anttila (Central Party) assigned the decrees (294/2011 and 295/2011) that regulate fishing.

The interview data provides us with a more detailed picture about the argumentative landscape of the Saimaa seal conservation. We find in the interviews that a common goal in benefit of the Saimaa seal exists. All stakeholders convey the intention and hope to protect the Saimaa seal and they share respect for the nature of the Lake Saimaa. However, the tension rather lies on the means and tools for conservation. In the interviews, we find part of authorities, NGOs and researchers as proponents or defenders of strictly regulated seal conservation, while the locals, i.e. representatives of industry and residents, are seen as defenders of their livelihood, ownership rights, “good natural asset” and way of life. They also emphasize co-existence with the Saimaa seal throughout centuries, which questions the necessity of conservation measures, especially the need for extensive fishing restrictions.

As mentioned, only a part of the authorities are proponents of strictly regulated conservation. Indeed, we find a peak in distrust arguments towards authorities, and the most interesting feature is that this distrust is mainly directed *by* authorities *towards* other authorities. This leads us to question: What role does the conflict among responsible authorities play in the overall success of conservation programs? If responsible authorities at different levels are not pulling in the same direction, what impact does that have on the overall legitimacy of conservation measures. Therefore, internal conflict among authorities is one interesting area for further investigation.

Fishing restrictions are the most commonly opposed conservation tool, and it is particularly the industry (tourism and fishery) representatives who present opposing arguments against them. The interview data also shows opposition among locally resident respondents in all stakeholder groups, including representatives of industry, residents and even authorities) towards restrictions for land use, which was seen in contradiction with the growing tourism industry. Those local respondents highlight tourism as the most important current and future source of livelihood in the area. They also fear that nature conservation will slow down the development possibilities of tourism. According to the interviews, nature is seen as the most important tourist attraction in the area and Saimaa seal being important part of the attraction. In that regard, recent policy recommendations for advancing tourism are particularly worth mentioning: According to Niemi et al. (2013a) nature tourism should be developed based on the responses of the Saimaa seals to motorboat traffic and the existence of identified haulout areas in order to mitigate disturbance to the seal. Thus, we find advancing sustainable tourism hand in hand with Saimaa seal conservation as one of the key issues to be addressed in the Saimaa region in the future, in order to avoid new conflicts between the furthering of local livelihoods and Saimaa seal conservation.

Both in the newspaper and in interview data, the most common arguments opposing conservation are 1) unnecessarily extensive implementation of conservation tools (primarily the fishing restrictions) 2) the voice of locals not being heard, and local ecological knowledge not being appreciated 3) distrust in the transparency of research; knowledge should be available and accessible to all. In the event that the latter is perceived as lacking, it may further lack of trust. Thus, we find these two interconnected.

The change from a polarized to more unanimous attitudes and atmosphere requires equal collaboration between stakeholders: acceptance of local knowledge and inclusion of regional stakeholders in decision-making (c.f. Tonder & Jurvelius 2004). Similarly, the interviews reveal a power struggle between local and scientific knowledge and fear of decision making power being shifted away from the local people to higher authorities, a phenomenon also discovered by Sairinen et al (1999) and Tonder and Jurvelius (2004). Indeed, recognizing local (ecological) knowledge and the possibility, rights, and ability of citizens to convey this knowledge and participate in decisions concerning themselves have been for decades one the most critical challenges to environmental conservation, participatory decision-making, and public sector planning in general (Arnstein, 1969; Süsskind et al., 1999; Dryzek, 2000; Hellström, 2001; McGuirk, 2001; Beierle & Cayford, 2002; Ventriss & Kuentzel, 2005; Peterson & Franks, 2006; Primmer & Kyllönen, 2006.) In the arguments where conservation tools were opposed or criticized, interviewees often mentioned that decision-making power had been transferred to Helsinki area (the capital of Finland) or to the European Union capital Brussels.

Thus, twenty years after the first questionnaire studies (Moisseinen, 1997) and ten years after Tonder and Jurvelius' study (2004), we still find similar themes reoccurring. It seems that the national conservation programmes of the 1980s and 1990s (and the shore conservation programme in particular) have left the feeling among rural inhabitants of the Saimaa area that decisions are made "somewhere else" or, more recently, in the European Union. Finland's EU membership has most likely further strengthened the sense of exclusion from planning procedures and decision-making in local inhabitants. As already recommended by Nieminen (1994), and later by Tonder (2005), the most effective way to enhance positive attitudes towards Saimaa seal protection would be adoption of more participatory planning and decision-making procedures. We raise the question, in light of future research, whether this need has been satisfied.

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APPENDIX 1 INTERVIEW QUESTIONS

Interview questions:

1. General questions on Lake Saimaa and business and industry opportunities at the Lake Saimaa area
 - What is your personal relationship to Lake Saimaa?
 - What sectors of industry are important for the area now and in the future?
 - If the interviewee mentions tourism: What are the most important tourist attractions of the area?
 - How important is the image of the Saimaa seal for the Saimaa area?
 - Do you fish in the lake?
 - If yes, does it bring you income?
 - Has the Saimaa seal or the Saimaa seal conservation affected your livelihood or living by the lake?

2. Questions on Saimaa seal and its conservation
 - Have you seen Saimaa seal? If yes, please tell about it.
 - What does Saimaa seal mean to you?
 - How would you feel if Saimaa seal would become extinct during your lifetime?
 - Should Saimaa seal be protected?
 - If not, why?
 - If yes, which tools would be the most efficient to protect the seal from extinction? Why?
 - What is your opinion on the current governmental decrees that restrict the fishing in Lake Saimaa?
 - What is your opinion on the fishing restrictions in general?

3. Questions on contradiction between actors
 - Do you perceive a contradiction in the conservation discussion?
 - If yes, who are the contradicting groups in the discussion?
 - Where do you see the contradiction?
 - What is your own attitude towards contradiction?
 - Have you been part of the contradiction? If yes, tell about it.
 - Has the contradiction affected in your personal life?