

On the Conditions for Developing Hunting and Fishing Tourism in Sweden

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Abstract

In many rural areas industrial development have reduced the number of available jobs in traditional industries such as agriculture and forestry. Areas that historically have been dependent on extraction of resources, experience a reduced need for labor. In some areas the result is high unemployment and depopulation. Nature tourism is often proposed as a way to create employment. Development of nature tourism must be environmental, economic and social sustainability to succeed. In this thesis, I examined social conditions that affect the development of hunting and fishing tourism in Sweden using data from mailed surveys. The data were assessed to determine (1) the change in the general public's attitudes toward hunting from 1980 to 2012, (2) the general public's attitudes toward different types of recreational fishing, (3) local residents' perceptions of increased use of game and fish by visiting tourists, and (4) the views among anglers toward catch and release fishing.

The results showed that support for both hunting and fishing as recreation was high, which should not restrict the development of hunting and fishing tourism. However, support was lower if the activities were done purely for recreation. This means that those who develop tourism should monitor the attitudes and norms in society and adapt the activities so they continue to be accepted by the general public. Local residents who were hunters or anglers did express a wish to limit the number of visitors. This indicates that local residents who live in the areas where new development is most needed can be skeptical of tourism development. The support for catch and release fishing varied among Swedish anglers. For example, pike specialists were very positive about catch and release, but those fishing for perch were not. The varied opinions of anglers give insight on which types of fish would be acceptable to catch and release.

Keywords: rural development, tourism, attitudes, norms, hunting, recreational fishing

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Dedication

To myself, for daring to jump...

Wildlife management is comparatively easy; human management difficult

Aldo Leopold (as quoted in Meine 2010)

*Many is a word that only leaves you guessing
Guessing 'bout a thing you really ought to know.*

Robert Plant

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List of Publications

This thesis is based on the work contained in the following papers, which are referred to by Roman numerals in the text:

- I Göran Ericsson, Per E Ljung, Anders Kagervall, & Camilla Sandström. Increasing support for hunting 1980-2012 (manuscript).
- II Anders Kagervall, Camilla Sandström & Göran Ericsson. Support for the Development of Hunting and Angling Tourism in Rural Sweden (Submitted to *Scandinavian Journal of Hospitality and Tourism*).
- III Anders Kagervall, Gustav Hellström & Göran Ericsson. Factors that Affect the General Public's Attitudes toward Recreational Fishing (manuscript).
- IV Anders Kagervall, Thomas A. Heberlein, Gustav Hellström & Göran Ericsson (2014). Conceptualization and Measurement of Catch-and-Release Norms. *Human Dimensions of Wildlife* 19(2), 139–153.

Paper IV is reproduced with the permission of the publishers.

The contribution of Anders Kagervall to the papers included in this thesis was as follows:

- I Kagervall assisted in analysis (10%), interpretation of results (25%) and writing (25%).
- II Kagervall formulated research question (100%), responsible for analysis (80%) and writing (80%).
- III Kagervall formulated research question (100%), collected data (50%), responsible for analysis (80%) and writing (80%).
- IV Kagervall formulated research question, planned and collected data (60%); Kagervall analyzed the data (90%), and was responsible for a significant part of writing (60%).

1 Introduction

Tourism has become one of Sweden's base industries with a gross domestic product of around 3% (Swedish Agency for Economic and Regional Growth, 2013). In contrast to many other sectors, the tourism sector is growing. Between 2000 and 2012, the number of people employed in the tourism sector increased by 28% compared to an 8% increase in total employment in Sweden (Swedish Agency for Economic and Regional Growth, 2013). The number of foreign visitors to Sweden is also increasing, and the export value generated by the tourism sector is larger than, for example, the steel and iron industry (Swedish Agency for Economic and Regional Growth, 2013). Tourism-related services are now one of the largest export sectors in Sweden, and tourism is often brought forward as a way to create new jobs in rural areas.

In Sweden, the need for diversification of the economy and creation of new jobs is most pronounced in the rural areas. During the twentieth century, Western society went through the transition from agriculture to industry to a service-based society. In many areas that have been historically dependent on the extraction of resources, technical developments have resulted in a reduced need for labor. Between 1965 and 2012, the proportion of people employed in agriculture, forestry and fishing dropped from 12% to 2% in Sweden (Statistics Sweden, 2013). In many rural areas of Sweden, this has led to declining population densities and high unemployment. Several studies have indicated that the development of nature tourism can create new opportunities for income in rural areas (Smith, 1992; Luloff *et al.*, 1994; Wanhill, 1997; Wilson *et al.*, 2001; Sanagustín Fons *et al.*, 2011). Nature tourism includes recreational activities enjoyed in nature, away from home, and includes an overnight stay (Valentine, 1992). Tourism based on fishing and hunting is a specialized branch of nature tourism. Any development of natural resources for tourism must be economic, social and environmental sustainable (World Commission on Environment and Development, 1987, also known as The Brundtland Report). The Brundtland Report defines sustainability as "development that

meets the needs of the present without compromising the ability of future generations to meet their needs.” Another definition is “the potential to maintain current living standards well into the future” (Heal, 2012). These definitions do not imply that the economic, social, and environmental aspects need to be balanced to achieve sustainability. It is quite possible to trade natural capital for intellectual or monetary capital and maintain sustainability (Heal, 2012). However, hunting and fishing tourism are directly dependent on fish and game, so depletion of the resource is not a sustainable option.

Development policies must ensure that ecological, economic and social sustainability are sufficiently met to fulfill the needs of a society (Littig & Grießler, 2005). The objective of social sustainability is often criticized as being too ambiguous in the Brundtland report. One definition is that social sustainability is reached when a community is able to support the basic needs of happiness, safety, freedom, dignity, and affection for all members of the community (Vavik & Keitsch, 2010). Littig and Grießler (2005) suggested three indicators for social sustainability (1) satisfaction of basic needs such as income, employment, education and housing conditions; (2) equal opportunities, for example gender equity and equal opportunities for education; and (3) integration into social networks and measures for solidarity and tolerant attitudes. Therefore, a positive impact on social sustainability from fishing and hunting tourism is dependent on positive attitudes toward hunting and fishing. When there is a high probability for social sustainability, the social conditions for development are good.

Game to hunt and fish to fish are required for the development of hunting and fishing tourism. The total area of Sweden is around 410,000 km², which includes 231,000 km² of forest land and only 2,000 km² are urban land (Swedish Forest Agency, 2013). Sweden also has around 40,000 km² of lakes, 28,000 rivers and streams, and a long coast line (SMHI, 2014). There are signs that wildlife populations important for hunting are increasing. Between 2005 and 2010 moose–vehicle collisions increased by 180%, collisions with roe deer increased by 130%, and collisions with wild boar (*Sus scrofa*) collisions increased by 250% (Neumann *et al.*, 2011). The alpine areas of Sweden are known for fishing opportunities for trout (*Salmo trutta*), grayling (*Thymallus thymallus*), and char (*Salvelinus alpinus*). Positive trends in several wild salmon (*Salmo salar*) populations have been reported (ICES, 2013), which is a species important for tourism in several other countries (Butler *et al.*, 2009; Stensland, 2012). These population increases indicate that the environmental conditions for hunting and fishing tourism are good.

The large proportion of Swedes who participate in recreational fishing or hunting contributes to good economic conditions. Every year, at least one

million Swedes go fishing and the total number of recreational fishing days is estimated to be 13.8 million (Swedish Board of Agriculture, 2013). Around 300,000 people pay the mandatory license needed to hunt. The high number of hunters and fishermen provide a customer base for hunting and fishing tourism. Combined with the good conditions for hunting and fishing, potential for tourism is high. Many of the resources attractive for tourism are also found in the same areas that are in need of economic diversification. The rights to fish and hunt are connected to land ownership in Sweden. This means that farmers and foresters owning land could see tourism development as an economic opportunity. Farmers in Sweden seem to have an interest in developing their farms for tourism as an additional source of income. In a survey of members of the Federation of Swedish Farmers in 2009 11% of the farmers had started a tourism-related business activity (Umaerus *et al.*, 2013).

Tourism development also receives political support. The Swedish government supports development of tourism as a way to assist rural areas where traditional sectors are becoming less prosperous. Between 2012 and 2014, 60 million SEK will be invested in the development of tourism, and 150 million SEK will be invested on marketing Swedish destinations abroad (Swedish Government, 2014). A recent joint proposal from the Swedish Board of Agriculture and the Swedish Agency for Marine and Water Management outline a strategy with the goal to double tourism based on recreational fishing by the year 2020 (Swedish Board of Agriculture, 2013).

Although environmental conditions, large potential customer base, interest from landowners, and political support are favorable for hunting and fishing tourism, the effects on regional economic development have been somewhat limited (Lundmark, 2005). This could be explained by determining how attitudes and norms among stakeholders affect the conditions for development. If acceptance of hunting and fishing as recreational activities is low among the general public, developing these activities for tourism will probably be difficult. Conversely, if management methods to improve opportunities to hunt and fish are accepted by a majority of stakeholders implementation will be easier. However, the local residents might perceive an increase in visitors competition for resources they already use. The goal of this thesis is to increase the knowledge of the social conditions that affect for hunting and fishing tourism. Combining the social implications with knowledge about environmental and economic conditions will allow for better predictions of the potential for tourism development.

2 Objective

The objective of this thesis was to examine the social conditions related to the development of nature tourism, particularly hunting and fishing tourism, from a human dimensions perspective. Attitudes and norms among the general public, rural inhabitants, and recreational anglers were analyzed to determine whether development of hunting and fishing tourism in rural Sweden will be accepted and conflict-free. The assumption is that the majority of both the general public and stakeholder groups must accept the activity for development to succeed. Specific questions addressed in the papers are as follows:

1. What are the general public's attitudes toward recreational hunting and fishing in Sweden? (Papers I & III)
2. Is there a risk that the general public's attitudes will become more negative in the future? (Paper I)
3. What are the perceptions toward hunting and fishing tourism among rural inhabitants? (Paper II)
4. What are the general public's attitudes toward catch and release fishing? (Paper III)
5. Do recreational anglers accept catch and release as a management policy? (Paper IV)

3 Theoretical framework

3.1 Background

Historically success in hunting and fishing was highly important for survival. For many, participation in hunting and fishing provides a connection to one's cultural and evolutionary origin (Leopold, 1949). Hunting and fishing are activities that can fulfill culturally, historically and genetically important needs (Gunnarsdotter, 2006; Polinac & Poggie, 2008). In today's modern society, hunting and fishing are described as multifunctional activities (Fischer *et al.*, 2013b) that can be differentiated into social, ecological, and economic functions (Costanza, 1999; Cahoone, 2009; Fischer *et al.*, 2013b). The social functions include non-market values such as recreational value, social identity, and value of life; ecological functions are related to the effects that wildlife have on the ecological system; and economic functions can be measured in terms of market-valued goods such as game meat and revenues from hunting tourism (Fischer *et al.*, 2013b).

The moose (*Alces alces*), the most important game species in Sweden, illustrates this structure nicely. Moose are usually hunted by hunting teams in Sweden. The hunting team is an important social structure that can give its members the feeling of belonging and equality, but it can also act as a social barrier that makes it hard for outsiders to be accepted (Heberlein, 2000; Gunnarsdotter, 2006). The hunt also provides a non-market recreational value that is about two thirds of the gross hunting value (Boman & Mattsson, 2012). Hunting provides the ecological function of population size control to manage the impacts moose can have on systems. Populations that are too large can cause problems such as production loss in forestry (Danell *et al.*, 1991; Edenius *et al.*, 2002) and increased number of traffic accidents (Neumann *et al.*, 2012). Economic value can be generated from game meat either by selling the meat or by subsistence (Heberlein, 2000; Boman & Mattsson, 2012) or by

selling hunting rights and guiding services to tourists (Gunnarsdotter, 2006; Willebrand, 2009).

In the first part of the twentieth century, wildlife was predominantly viewed as one of the goods that man could harvest. This view is prominent in Aldo Leopold's influential book *Game Management* (1933). Describing scientific methods based on biology and ecology, this book was a breakthrough in the management of wildlife and remained the standard university text in wildlife management for over 40 years (Decker *et al.*, 2001). Leopold was also one of the first to identify the need for a multi-disciplinary approach to wildlife management:

“One of the anomalies of modern ecology is the creation of two groups, each of which seems barely aware of the existence of the other. The one studies the human community, almost as if it were a separate entity, and calls its findings sociology, economics and history. The other studies the plant and animal community and comfortably relegates the hodge-podge of politics to the liberal arts. The inevitable fusion of these two lines of thought will, perhaps, constitute the outstanding advance of this century” (Aldo Leopold quoted in Meine, 2010, p 359).

Today the field has advanced toward Leopold's vision with increasing attention from social sciences and humanities for wildlife management. However, a true multi-disciplinary approach is far from being reached (Riley *et al.*, 2002; Heberlein, 2012b).

3.2 Nature tourism

Nature tourism can be defined as “the direct enjoyment of some relatively undisturbed phenomenon of nature” (Valentine, 1992). To be classified as tourism the activity must take place away from home and usually include an overnight stay (Bell *et al.*, 2007). The activities are often classified as non-consumptive (e.g., moose safari or walking) or consumptive (e.g., hunting or fishing) (Bell *et al.*, 2007). Consumptive and non-consumptive users of wildlife can sometimes have conflicting views on how the wildlife should be used. However, the fundamental management goal, for both types of activities, is to provide a reasonable chance to encounter the wildlife (Duffus & Dearden, 1990).

Several stakeholder groups are affected when a new tourism destination is developed. A stakeholder is anyone who is affected by, or will affect wildlife (Decker *et al.*, 1996). Entrepreneurs, customers, local residents and the general public are important stakeholders in hunting and fishing tourism. Entrepreneurs are needed to start and develop tourism-related businesses. Customers who are

willing to visit and pay for the services offered are important and knowledge about their preferences and willingness to pay is essential. Local residents are important because, besides the entrepreneurs, they are the ones expected to gain from the development. Local residents can also perceive negative effects in the form of competition for a resource or crowding. Support from the local residents is a cornerstone of sustainable social development. In the same way support is needed from the general public. Ultimately, recreational hunting and fishing should have a high level of acceptance by the general public for tourism based on hunting and fishing to be sustainable.

3.2.1 Tourism based on hunting and fishing

The research related to Swedish hunting and fishing tourism has focused mainly on the environmental dimension with studies of population dynamics, behavior, carrying capacity, and management. Overviews of the knowledge on game and fisheries are given in two books *Game, Man, Society* [Vilt, människa, samhälle] (Danell & Bergström, 2010) and *Ecology for Fisheries Management* [Ekologi för fiskevård] (Persson *et al.*, 2011). Several studies have also researched the economic value of hunting and fishing. The number of hunters is monitored by the Swedish Environmental Protection Agency that administers the mandatory license needed to hunt in Sweden. The gross hunting value was around 3.1 billion SEK for hunting year 2005/06, an increase from 2.4 billion SEK in 1986/87 (Boman & Mattsson, 2012). The game species with the highest economic value is moose (*Alces alces*) followed by roe deer (*Capreolus capreolus*), hare (*Lepus ssp.*), and grouse (*Teatro ssp.* and *Lagopus ssp.*). The social sustainability of hunting and fishing tourism has received some attention. In a study of Locknevi, a small parish with 500 inhabitants in southern Sweden, socio-cultural impacts from hunting tourism on hunters, non-hunters, landowners, and non-landowners were studied using qualitative methods (Gunnarsdotter, 2006). Negative effects were caused mostly by cultural differences where the Locknevi inhabitants had difficulties understanding the behavior of the visiting hunters, but also by increased prices for hunting leases. Willebrand (2009) used quantitative data to examine the attitudes toward hunting tourism among hunters living in rural Sweden. Both Gunnarsdotter (2006) and Willebrand (2009) suggested cultural clashes and social tension as the most likely negative factors influencing support of hunting tourism.

Hunting and fishing share many characteristics. Both are activities in which an animal is pursued with the goal of taking control over it. This often this includes harvesting the animal for meat, fur, or trophy. The harvest and handling of wild animals is an ethical question, and in many countries, the

animal rights movement is growing. Several articles have discussed the morality of hunting (List, 1997; Moriarty & Woods, 1997; Cahoone, 2009) and fishing (de Leeuw, 1996; Balon, 2000; Olson, 2008) on a philosophical level. Fewer studies examine the discourse of hunting (Fischer *et al.*, 2013a) and fishing (Hasler *et al.*, 2011; Muir *et al.*, 2013) using empirical data. A common criticism of hunting and fishing is that it is morally wrong to inflict stress, pain and ultimately death upon an animal. The motive for hunting or fishing has been found as an important predictor of acceptability (Fischer *et al.*, 2013a). The German Animal Protection Act states that “nobody is allowed to inflict pain, suffering or damages to an animal without a reasonable reason” and that “penalization by prison sentence up to 3 years or by fine will take place if somebody 1) kills a vertebrate without having a reasonable reason or 2) causes enduring or repeated pain and suffering to a vertebrate.” This has been interpreted as a ban on voluntary catch and release angling in Germany (Arlinghaus, 2007). Eating and not discarding game meat is often a requirement for the acceptance of hunting and by meeting such imperatives other motives, like recreation, can be accepted (Fischer *et al.*, 2013a).

The support for hunting and fishing is high in Sweden but support is generally higher when there is a utilitarian component involved. Support for hunting drops when the main motivations are sport and recreation (Ljung *et al.*, in press; Ericsson & Heberlein, 2002). If support for hunting and fishing decreases, hunting and fishing as a form of tourism will also receive low support from society.

Additionally, a specific behavior or management measure could break norms or trigger negative attitudes. Changes in management can influence the motivation for an angler to visit a specific destination (Anderson & Nehring, 1984; Aas *et al.*, 2000; Paulrud & Laitila, 2004).

Catch and release fishing (C&R) is the voluntary or mandatory release of most or all of an angler’s catch (Sutton, 2001; Arlinghaus *et al.*, 2007). C&R has been promoted as a management option that allow to maintain a high fishing pressure without depleting the fishery. Studies on survival and behavior of released fish have shown that a high proportion of fish survive C&R provided that the release is properly performed (Cooke & Suski, 2005; Stålhammar, 2013). For example, studies of Atlantic salmon reports survival rates of 95% if the C&R event is done during low water temperatures (<16 °C)(Thorstad *et al.*, 2007). Positive effects on the quality of angling (mean size and number of trophy sized fish) have been reported from C&R rivers in Jämtland (Näslund *et al.*, 2005). In the perspective of development of fishing tourism C&R theoretically looks like the perfect way to manage the fisheries; you can use the resource without consuming it. However, C&R raises the

question of animal welfare (Aas *et al.*, 2002) because it involves the handling of an animal purely for recreation, and the general public might or might not support this. On the other hand, the fish is released and contributes to the fish population while the angler (and, therefore society) receives recreational value.

A tourism destination needs a number of visitors to be economically sustainable. At the same time, an increased number of visitors can potentially lead to a situation where resident recreationists and tourists compete for the same resource. Previous studies have suggested that local residents commonly perceive negative impacts from an increase in the number of visitors (Jurowski *et al.*, 1997; Gursoy *et al.*, 2002). Because fish and game can, in many ways, be seen as a common good, there is a risk that local residents – often hunters or anglers themselves (Tangeland *et al.*, 2013) – will see an increase in visiting hunters and anglers as a threat to their own recreation. A review of the literature showed that social sustainability in relation to hunting and fishing tourism in Sweden has not been widely studied. Therefore, the focus of this thesis is the human dimension of hunting and fishing tourism development in Sweden.

3.3 The human dimension of wildlife management

The human dimensions approach to wildlife management is a multidisciplinary field that takes human thoughts and actions into account when creating management policies for wildlife and their habitats (Figure 1). Wildlife management (with a human dimensions perspective) has been defined as “the guidance of decision-making processes and implementation of practices to purposefully influence interactions among and between people, wildlife, and habitats to achieve impacts valued by stakeholders” (Riley *et al.*, 2002). It seeks to understand how stakeholders are impacted by wildlife and which impacts are desired and which are not. Stakeholders are the people affected by wildlife or wildlife management, and impacts are positive or negative effects from interaction between wildlife and humans (Riley *et al.*, 2002). In the interaction between the social, wildlife and habitat domains (Figure 1) we find impacts that give both positive and negative effects on the social sustainability. For example, the negative impacts (e.g., diseases, vehicle collisions and crop damage) from a wildlife population on its biological carrying capacity might be so big that the social sustainability is reduced (Conover & Dinkins, 2012). Thus, management with a human dimension of wildlife perspective must balance the impacts from social, economic, and environmental dimensions. By determining the desired impacts, managers can set impact-related goals to achieve sustainability (Riley *et al.*, 2003). Examples of impacts relevant for

wildlife management are recreational benefits, aesthetic benefits related to quality of life, economic costs and benefits, and a species' contribution to biological diversity (Decker *et al.*, 2012).

Several different disciplines are applied to assess all of the parameters needed to define the management goals. Social psychology is used to predict human behavior using value orientations, beliefs, attitudes and norms. Sociology examines how social groups, for example urban or rural, influence behavior. Economics is used to define both market and non-market values of wildlife and to estimate the economic impact of various management actions on society. Ecologists study the wildlife and wildlife habitat, the effects on the ecosystem, and the management of wildlife populations and habitat.

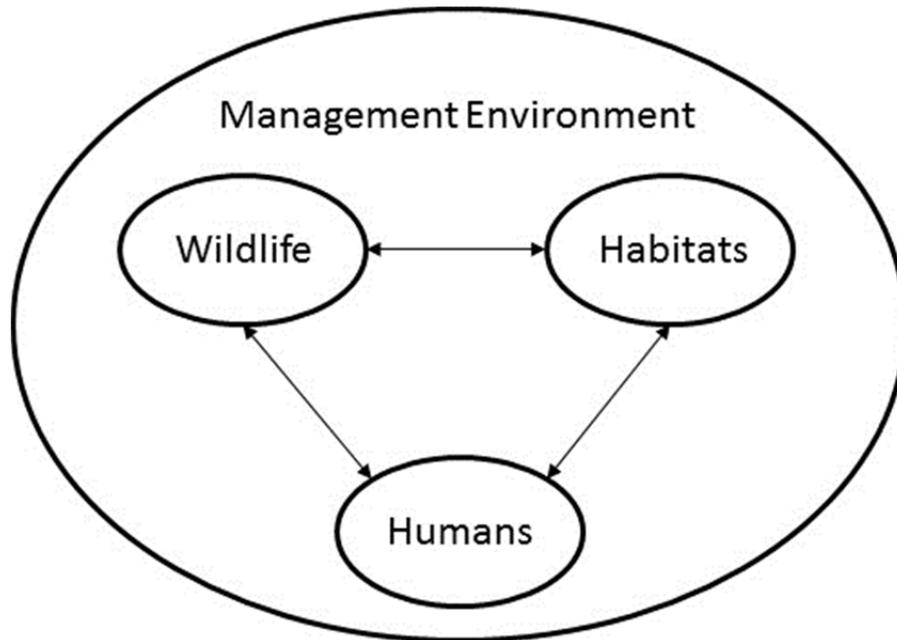


Figure 1. Wildlife management triad (after Decker *et al.*, 2012)

The theory that human thought can be viewed as a hierarchy of cognitions is commonly used (Fishbein & Ajzen, 1975). This field of human dimension research tries to explain how the thought process leads to behavior. The field has evolved from descriptive studies to conceptual studies and theory. Since the 1990s, human dimension of wildlife management courses are often included in university wildlife management programs. Examples of important concepts that have been developed are: *the multiple satisfactions approach*, a concept that examines the multidimensional nature of satisfaction from a

hunting experience (Hendee, 1974); *value orientation toward wildlife*, the identification of value orientations (e.g., naturalistic, aesthetic, utilitarian or dominionistic) that can help to understand conflicts over wildlife (Kellert, 1993); and *wildlife attitudes and value scales*, the measurement of attitudes and beliefs to help managers understand why stakeholders express certain concerns and viewpoints on different wildlife issues (Purdy & Decker, 1989; Fulton *et al.*, 1996).

The concept of a hierarchy of cognitions can be illustrated as a reversed pyramid (Figure 2). This model describes the process of how values affect value orientations that, in turn, affect attitudes and norms. *Values* are desired end states or qualities of life that are important to a person, for example freedom or equality. Values are often formed early in life, and most people have only a small number of core values and they are resistant to change (Decker *et al.*, 2001). *Value orientations* or basic beliefs are thoughts on specific objects or issues in relation to one's values. Two people who share the same value can have different value orientations depending on how they apply that value to an object. For example, if two people share the value freedom but one applies freedom to both humans and animals and the other applies it only to humans their support for animals in captivity will differ. *Attitudes* are one step higher in the hierarchy of cognitions. They are cognitive constructs of values, beliefs, and emotions toward an object or an issue, and they always have a direction, either positive or negative (Heberlein, 2012a). Attitudes can be measured by asking questions in terms of like–dislike, good–bad, and positive–negative (Vaske, 2008). A strong, specific attitude can be a good predictor of behavior intentions but behavior intention is not always the same as actual behavior (Heberlein, 2012a).

A *norm* deals with observable behaviors and the evaluation of behaviors as good or bad by the actor or by others. An evaluation held by a collective is called a social norm (Heywood, 2011; Heberlein, 2012a). A norm describes either what people are doing or what they should be doing and acts as an informal rule for accepted behavior. Social norms are standards shared by a group and personal norms are individuals' own expectations for themselves. Norms are connected to sanctions that give feedback when norms are broken or followed (Heberlein, 2012a). Following or breaking your personal norm might make one feel proud or guilty (internal sanctions). Sanctions for a social norm are given by others in the group, sometimes verbally and sometimes unspoken. The influence of norms on behavior can be very strong. Most people want to comply with the group they are in, and the sanctions give feedback when the behavior is right or wrong. Attitudes and norms ultimately result in behavioral intentions or behavior. The behavioral intention is the hypothetical behavior

that a respondent thinks they will most likely execute; however, situational factors can sometimes change the actual behavior. Behavioral intention is easy to measure with questions in a survey whereas actual behavior must be observed under natural conditions.

By measuring and analyzing attitudes and norms toward hunting and fishing I predict how the development of tourism will be perceived. Negative attitudes and activities outside current norms will be indicators of areas with risk of conflicts. On the other hand positive attitudes and activities within current norms will indicate good social conditions for development of tourism.

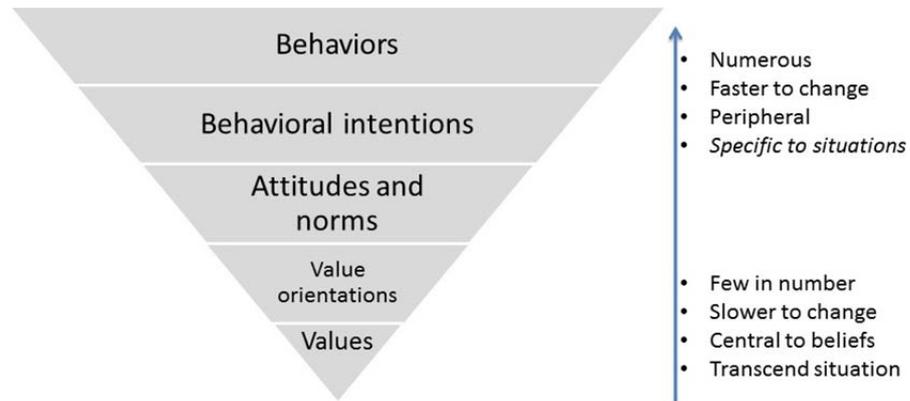


Figure 2. Model of the cognitive hierarchy describing the process from values to behaviors (after Decker *et al.*, 2012)

4 Materials and methods

4.1 Data collection

The data for all papers were collected with mailed surveys. In all surveys, we used four personalized mailings and included control mailings to ourselves to verify the mailing time (Dillman *et al.*, 2008). We first sent a pre-notice card with bulk mail, two to three days later, the respondents received an envelope containing a questionnaire, a pre-paid return envelope, and a cover letter that explained the purpose of the study and kindly asked for their voluntary participation. About seven days later a combined reminder/thank you postcard was sent to the respondents, and about twenty-two days later, those who had not yet responded got a second complete mailing with a new revised cover letter and a replacement questionnaire via priority mail. We offered no incentives to the respondents at any stage of the survey administration.

Sample size, year of administration and other survey characteristics are shown in Table 1. The surveys used in Papers I, II, and III covered different aspects relating to wild animals and nature. The survey used for Paper IV was sent to a random sample of members of the Swedish Association for Sport Fishing and Fisheries Management. By sampling the sport-fishing association we could examine a group of active anglers. All surveys also included demographic questions. As an example of the general animal and nature survey the survey instrument from 2012 is included in appendix 1. The survey instrument targeting recreational anglers is included in appendix 2.

We checked for non-response errors by comparing age and gender of respondents with age and gender of non-respondents with only minor differences found.

A quantitative approach was used to be able to generalize the results to a larger population. The data collected in a quantitative study are numbers and quantities that are analyzed using numerical statistical methods. I use quantitative methods to be able to generalize the results to the population

sampled. The alternative qualitative methods that use interview results from a small number of respondents do not provide generalizable results but can instead give a richness and depth for understanding the process in question. Qualitative methods are often used in explorative studies and can, for example, be used to understand what questions to use in a quantitative study.

Table 1. *Surveys used in the studies.*

Paper	Year	Population	Sample size	Return rate (%)	Questions in
I	2001-2012	Swedish population	1,034-2,350	44.3-74.3	Appendix 1
II	2009	Northern Sweden (69 municipalities)	10,350 (150 per municipality)	52	Appendix 1
III	2012	Swedish population	1,067	51	Appendix 1
IV	2011	Swedish Association for Sport Fishing and Fisheries Management	1,067	75	Appendix 2

4.2 Examined groups

We analyzed three groups whose attitudes and/or norms were believed to be important for the development of hunting and fishing tourism: the general public, potential customers and local residents. We examined the general support of the public for fishing and hunting and analyzed whether the support was influenced by utilitarian motives. The views of the general public represent the views of the society, and high acceptance facilitates the development of tourism. A positive attitude toward an activity is a baseline condition for acceptance of the development of the activity for tourism. For Papers I and III, we sent surveys to a random sample ($n = 1,000-2,400$) of all Swedish citizens aged 16 to 65 years selected from the Swedish national register (Statens personadressregister; SPAR, Skatteverket 171 94 Solna). Paper I analyzed in the general public's attitudes toward hunting over time, and Paper III analyzed attitudes toward recreational fishing.

The attitudes of local residents toward tourism development have received a lot of attention (for reviews see Butler, 1999; Harrill, 2004). However, there are few recent studies of local residents in Sweden and their attitudes toward hunting and fishing. Local residents can be affected by tourism both positively and negatively (Andereck & Vogt, 2000). An increased number of visitors can result in diversified economy and increased employment opportunities, but tourists can also be perceived negatively as causing crowding and competition

for local resources (Jurowski *et al.*, 1997; Andereck & Nyaupane, 2011). In areas with potential for hunting and angling tourism (abundance of wildlife and attractive nature), the residents often use the resources themselves for both recreation and subsistence. For tourism to be sustainable positive attitudes toward the development is crucial (Butler, 1999). For Paper II, we surveyed a random sample local residents from 69 municipalities ($n = 150$ per municipality) in northern Sweden.

Customers, who are willing to visit nature areas and pay for hunting and fishing activities, were identified as one essential stakeholder group for nature tourism. We specifically examined Swedish norms toward C&R-angling. C&R can potentially change recreational angling from a consumptive to a non-consumptive activity and can help maintain a high fishing pressure without depleting the fishery. C&R is interesting to study two because the acceptance of C&R influences the probability that an angler will visit a fishery with C&R management and because C&R is a purely recreational form of fishing with no consumptive motive. For Paper IV, we surveyed a random sample of Swedish recreational anglers was obtained as a random sample ($n = 1067$) of the members ($N=50,000$) of the Swedish Association for Sport Fishing and Fisheries Management (Sportfiskarna, Svartviksslingan 28, 167 39 Bromma).

4.3 Statistical approaches

The survey items in all papers used Likert scales where several items (questions) are combined to measure a common underlying phenomenon (Likert, 1932). Multiple-item scales are often necessary to measure the full meaning and richness of psychological concepts (Vaske, 2008, p 61). The reliability of the scales was tested with Cronbach's alpha, principal component analysis (PCA), and internal correlations. Either the PCA score or the sum of the responses for each survey-item can be used to analyze the combined scale. We used the summed scores in this study. Differences between the mean responses in groups were tested using t-tests or ANOVA. Pearson's chi-squared test was used to test expected frequency distributions. Multiple regressions were used to test the effect of explanatory variables on the dependent variables. Path analysis was used in Papers II and IV because there were several dependent variables and causality was expected. Path analysis is performed as a series of regressions and allows analysis of the indirect effects as effects that are transmitted via intervening variables (Alwin & Hauser, 1975).

In Paper III, we used model averaging and variable importance values to rank the explanatory variables influence on the attitude toward recreational

fishing (Anderson, 2008). We generated a complete set of models using all possible combinations of the explanatory variables. For each model, a model probability weight was calculated using the AICc (Akaike's information criterion with a correction for finite sample sizes). Finally, variable importance values were calculated for each variable by summing the model weights for all models that included the variable. Variable importance values are used to determine the most important variables when the data have high dimensionality of the predictor variables, a high degree of multicollinearity, and high variability (Anderson, 2008).

In in Paper IV, the anglers were divided into homogenous groups using a *k*-means clustering method that group multidimensional observations into homogenous clusters (Hartigan & Wong, 1979). The optimal number of clusters was selected as the lowest residual sum of squares among solutions with 2–10 clusters. The norms measured in Paper IV were visualized using return potential curves (often called norm curves) (Vaske *et al.*, 1986). Consensus of the norms was tested with potential for conflict index (PCI₂) (Vaske *et al.*, 2010). PCI₂ is an index that simultaneously describes a variable's central tendency, dispersion and skewness. PCI₂ was developed to communicate human dimensions findings.

5 Summary of papers

5.1 Paper I (Increasing Support for Hunting 1980-2012)

In Paper I, we examined the general public's attitude toward hunting in Sweden and changes in this attitude between 1980 and 2012. In many parts of the Western world, hunting participation is dropping, and animal rights organizations are raising moral concerns about hunting and fishing. Urbanization is believed to result in changed value orientations that lead to decreased support for hunting (Manfredo *et al.*, 2003). Reduced support and participation negatively affect the potential to develop hunting tourism. Based on questions developed in the United States by Kellert (1980), attitudes toward hunting in Sweden were measured in 1980 (Norling *et al.*, 1982), 1997 (Heberlein & Willebrand, 1998) and 2001–2012 (Paper I). Four questions measured the attitudes toward (1) hunting in general, (2) traditional native hunting, (3) hunting for recreation and sport, and (4) hunting for recreation and meat (Table 2). Kellert originally formulated the question in the middle of seventieth. Since then the wording “Indians and Eskimos” in question 2 have become inappropriate. The value of an identically formulated question in a long time-series was deemed very high and the question was kept unchanged in our surveys until 2013 when it was removed. Even with the inappropriate wording of the question I find the very high and stable support of hunting done by indigenous important to report and have therefore chosen to include the question.

Table 2. Percentage of positive responses to the survey questions for each year. The number of respondents is shown in parentheses. The percentages are the combined proportion of respondents that chose one of the two positive response categories for each question.

	1980 ¹ (2,011)	1997 ² (820)	2001 (753)	2008 (679)	2009 (485)	2010 (587)	2011 (1,194)	2012 (533)
Q1. What is your general attitude toward hunting? ¹	72		80	82	79	81	81	84
How do you feel about								
Q2. ...traditional native hunting done by some Indians and Eskimos? ²		92	93	93	91	91	93	92
Q3. ...hunting game mammals such as moose and deer for recreation and sport? ²		33	34	40	34	38	40	42
Q4. ...hunting game mammals such as moose and deer for meat and recreation? ²		n/a ³	66	70	67	71	74	74

Footnotes: ¹. From Norling et al 1982. ². Kellert 1980 and later adopted by Heberlein & Willebrand 1998.

³. The question was erroneously formulated in the 1997 questionnaire by Statistics Sweden as "... to get food".

Between 1980 and 2012, the general support for hunting significantly increased (linear regression $p=.035$, $r^2_{adj}=81\%$) from 72% to 84% among the Swedish population. The strongest support was for subsistence hunting by native people, and this attitude was stable over time ($p=.49$). Hunting for recreation and sport received the lowest support and showed no significant trend ($p=.11$). Hunting for recreation and meat (utilitarian) showed a tendency to increase over time ($p=.066$).

The main findings in Paper I were that the attitudes toward hunting in Sweden are stable or becoming more positive. We also confirmed previous results that a utilitarian motive is necessary for high support of hunting. Purely recreational hunting had significantly lower support from the general public. The result presented in Paper I are one of the first studies with time-series data with more than two data points. The results are important for this thesis as a baseline support for hunting. This baseline provides a good foundation for attitudes toward tourism. We discussed three possible explanations for an

increase: increasing wildlife populations, new food trends and institutional changes. These explanations can also indicate good conditions for hunting tourism. Increased wildlife populations can both result in increased opportunities to hunt as well as positive attitudes as increased populations increases the support for active management that reduced negative impact from wildlife. Interest in game meat and “green” food can also be positive for hunting tourism as the meat and sometimes a wilderness dinner is part of the tourism experience. Institutional changes include the Swedish hunting legislation where the mandatory hunting exam as well as strict rules about firearms reduce negative factors like firearm accidents and wounded animals.

5.2 Paper II (Support for the Development of Hunting and Angling Tourism in Rural Sweden)

In Paper II, we examined support for hunting and fishing tourism from local residents in areas where tourism development is likely to occur. Previous studies of hunting tourism support have used qualitative methods (Gunnarsdotter, 2006) or quantitative methods examining only active hunters (Willebrand, 2009). In this study, we sampled the population in rural municipalities in northern Sweden to determine how being an active angler or hunter affects attitudes. Because fishing and hunting are popular recreational activities in rural Sweden, local residents might perceive extensive development of tourism as competition. We analyzed two concepts important for nature tourism: the Swedish Right of Public Access (RPA) and activities that should be allowed in protected nature. The RPA has in many cases, had positive effects on the development of tourism because it provides access to many resources, but it can also have negative effects if it makes commercializing a resource harder (Sandell & Fredman, 2010). In many countries where access to private land is restricted national parks and other forms of protected nature are of vital importance for nature tourism. In Sweden, where RPA grants access to land, protected nature might instead be a hindrance if some types of activities are prohibited (Lundmark *et al.*, 2010). Generally, the RPA is strongly supported in Sweden (Sandell & Fredman, 2010), but suggestions to limit the RPA for non-locals or for commercial use have been debated. Depending on what activities are allowed, protected nature can also be perceived as limiting for the residents’ recreational use of the area (Zachrisson *et al.*, 2006).

We sampled 150 individuals from each of 69 municipalities in northern Sweden, and 15 of there were classified as alpine areas. Of the total 10,350 survey instruments mailed, we received 5,395 usable answers, giving a

response rate of 52%. We analyzed the attitudes toward various utilitarian activities in protected nature. We also analyzed the attitudes toward changing the RPA to include more restrictions for visitors.

Support for restricting RPA for non-locals and/or commercial activities was correlated with personal experience of hunting and fishing and with residence in alpine areas (Figure 3). We tested the relationships between the dependent variables and the independent variables of hunting, fishing, residence and employment sector with path analysis. The path analysis revealed that a differentiated RPA had higher support from hunters ($b = .63, p = .002$) and anglers ($b = .46, p = .002$) and lower support from those employed in agriculture or forestry lowered the support ($b = -.25, p = .05$). Utilitarian use of protected nature was affected by hunting experience ($b = .50, p = .001$) and residence in an alpine municipality ($b = .30, p = .002$).

The main finding was that even though a majority believed that hunting and fishing tourism will generate jobs, as much as 30% of the municipalities had a majority that did not believe in hunting and fishing tourism as employment generators. Further when a high proportion of local residents are hunting and fishing for recreation there was a risk for competition and crowding. The areas with high proportion of hunters and anglers were often areas in need of rural development (Figure 3).

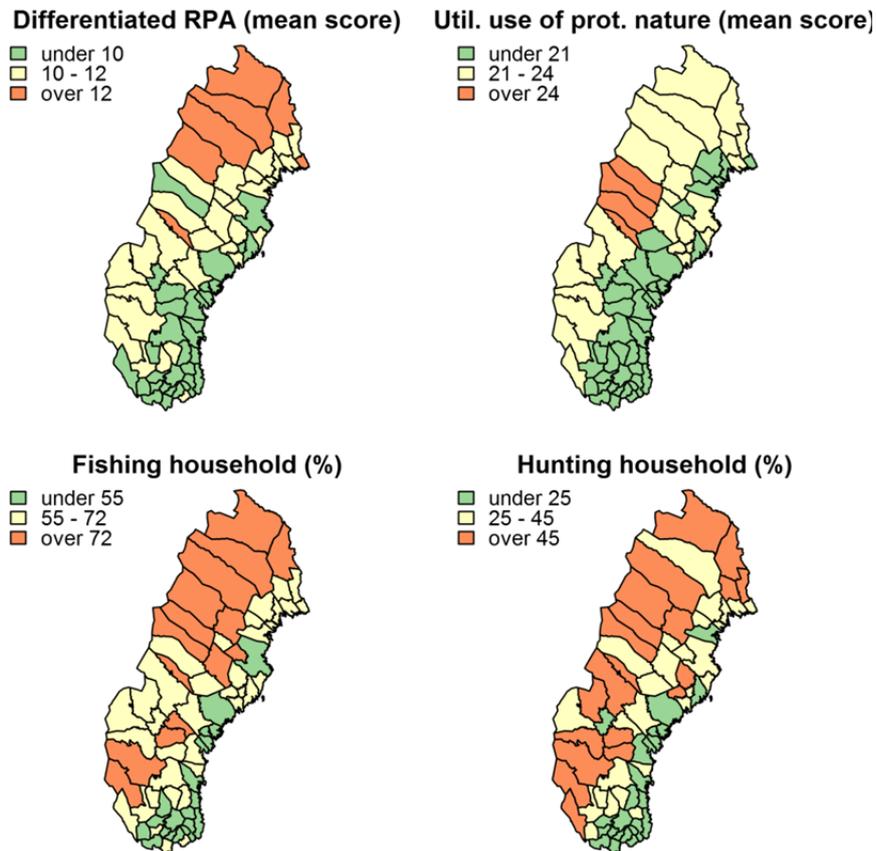


Figure 3. The maps show the attitudes toward differentiated Right to Public Access (RPA) and utilitarian use of protected nature and the proportion of households with anglers or hunters in 69 municipalities in northern Sweden. Higher mean scores indicate more support for differentiated RPA and utilitarian use of nature.

5.3 Paper III (Factors that Affect the General Public's Attitudes toward Recreational Fishing)

In Paper III, we examined the general public's attitudes toward recreational fishing in Sweden. Because urbanization has been hypothesized to result in a change of value orientations toward animals and ultimately lowered support for hunting and fishing (Manfredo *et al.*, 2009; Arlinghaus *et al.*, 2012), we tested the effect of living in an urban or rural area. We also tested the effect of being or living with an angler or hunter and personal experience with recreational

harvesting (non-commercial harvest of wild berries, mushrooms, fish and game meat). We also tested the demographic variables of age, gender and education. Data was collected in 2012 with a survey sent to a random sample ($n = 1,067$) of all Swedish citizens aged 16 to 65 selected from the Swedish national register (Statens personadressregister; SPAR, Skatteverket 171 94 Solna). We received 545 usable responses giving a response rate of 51%. A Likert-type scale was created to measure the general attitudes toward recreational fishing using the five questions shown in Table 3.

Table 3. *Distribution and mean score of the five attitude items. Cronbach's $\alpha = .70$*

Attitude item (mean ranges from -2 to 2)		Rural non-fisher	Rural fisher	Urban non-fisher	Urban fisher
How do you feel about recreational fishing... in general?	Positive	47%	83%	47%	82%
	Neutral	45%	16%	44%	14%
	Mean	0.54 ^A	1.33 ^B	0.49 ^A	1.26 ^B
when the catch is released?	Positive	50%	75%	55%	77%
	Neutral	33%	22%	28%	14%
	Mean	0.48 ^A	1.14 ^B	0.55 ^A	1.21 ^B
when the catch is kept to eat?	Positive	68%	78%	60%	85%
	Neutral	26%	16%	32%	11%
	Mean	0.81 ^A	1.23 ^B	0.69 ^A	1.29 ^B
when fish is released even when it is legal to keep?	Positive	44%	72%	45%	71%
	Neutral	36%	25%	38%	20%
	Mean	0.34 ^A	1.03 ^B	0.39 ^A	1.00 ^B
with gill-nets?	Positive	24%	40%	22%	36%
	Neutral	45%	33%	46%	36%
	Mean	-0.07 ^A	0.12 ^A	-0.19 ^A	0.08 ^A

Note. Common letter indicate no significant difference between groups within row (Tukey's $p < .05$)

The support for recreational angling using the combined scale (range -10 to 10) was 14% negative (score < 0), 14% neutral (score = 0) and 72% positive (score > 0). Model averaging and importance values were used to rank the influence of the explanatory variables on (1) the general support for recreational fishing measured by a scale created by combining the questions in Table 3 and (2) three of the attitude questions analyzed separately. Three questions about C&R fishing, fishing with rod and line and keeping the fish to eat, and gill-net fishing (where no fish can be released) were chosen. These questions represent a gradient from fully non-consumptive motive to fully consumptive motive.

The most important variable for general attitude were personal fishing experience the last twelve months (averaged model standardized coefficient $b=.25$, $p=.02$) and recreational harvest orientation ($b=.20$, $p<.001$). Adjusted R^2 for the full model was 19%. The analysis revealed the pattern shown in Figure 4. The attitude toward C&R was mainly influenced by being an angler, and also a weak effect from recreational harvest orientation. The most important variables for recreational fishing when keeping the fish was recreational harvest orientation and personal fishing experience. The attitude toward gill-net fishing was influenced only by recreational harvest orientation.

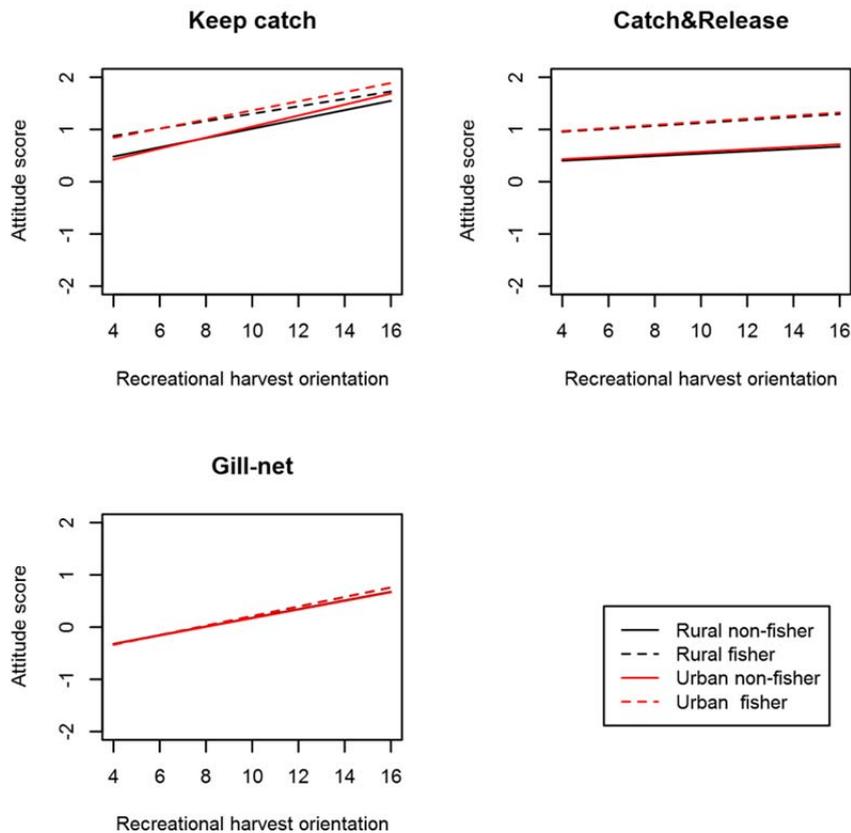


Figure 4. Averaged model predictions of attitude score with respect to recreational harvest orientation for specific questions about recreational fishing for rural and urban fishers and non-fishers. Age fixed at median, gender = male, and education = high school.

The main finding in Paper III was that urbanization alone did not have a significant influence on the attitudes toward fishing. Participation in either

fishing or other nature harvesting activities was more important. Our results also indicate that the attitudes toward recreational fishing are not well developed among the non-fishing part of the population. This means that attitude may change if animal welfare vs. angling is brought to the agenda. Support for fishing with rod and reel was higher if the angler had a utilitarian motive. In contrast, gill-net fishing received the lowest support of all, even though the motives for gill-net fishing are highly utilitarian.

5.4 Paper IV (Conceptualization and Measurement of Catch-and-Release Norms)

In Paper IV, examined the existence and characteristics of C&R norms among Swedish recreational anglers. Strong social norms are good predictors of behavior (Heberlein, 2012a) and can give insight into the expected acceptance of different management actions (Vaske *et al.*, 1993). Data for this study were collected from a survey sent to a random sample ($n = 1067$) of members of Sweden's largest organization for recreational anglers, the (Swedish Association for Sport Fishing and Fisheries Management, [Sveriges Sportfiske- och Fiskevårdsförbund]). We received 793 responses resulting in an effective response rate of 75%. The C&R norm was measured by asking about the acceptance of releasing five different proportions of the catch (0%, 25%, 50%, 75% and 100%). Cluster analysis was used to divide the respondents into groups with homogenous norms. The cluster analysis resulted in three groups, each with a distinctive norm (Figure 5). The norm for each group was visualized as an acceptability curve (Vaske *et al.*, 1986) and PCI_2 was calculated to test the consensus of each norm (Vaske *et al.*, 2010). Finally, we examined the angling preferences and demographic characteristics of each group.

Of the respondents, 25% clearly indicated a preference to release most or all of the catch, and 23% belonged to a group who wanted to keep all of the catch and disliked the release of caught fish. The largest group (52%) had a mixed norm; they wanted to keep some fish but disliked the two extreme behaviors of releasing none or all fish. Those who preferred to fish for pike or grayling were more likely to belong to the C&R group, and those who preferred to fish for perch, char, or saltwater species were less likely to be C&R anglers. Further, those who preferred fly-fishing were more likely to have a C&R norm than those who preferred ice fishing. Those with a C&R norm were also younger and fished more often than the other groups.

The main finding in Paper IV was the identification of three distinct groups of anglers with different norms regarding C&R angling. The largest group preferred to keep part of their catch but did not accept either to keep everything or to release everything. One group preferred no-kill angling, and the third group did not find it acceptable to release any fish. We identified several personal and situational characteristics that influenced what norm the respondent held. These characteristics can be used to help decide if C&R management is suitable for a fishery. An important finding was the relation between young age and C&R, which could indicate a trend toward increased acceptance of C&R. This paper is, to our knowledge, the first to use the concept of norms as a standard and norm acceptance curves in the context of C&R angling.

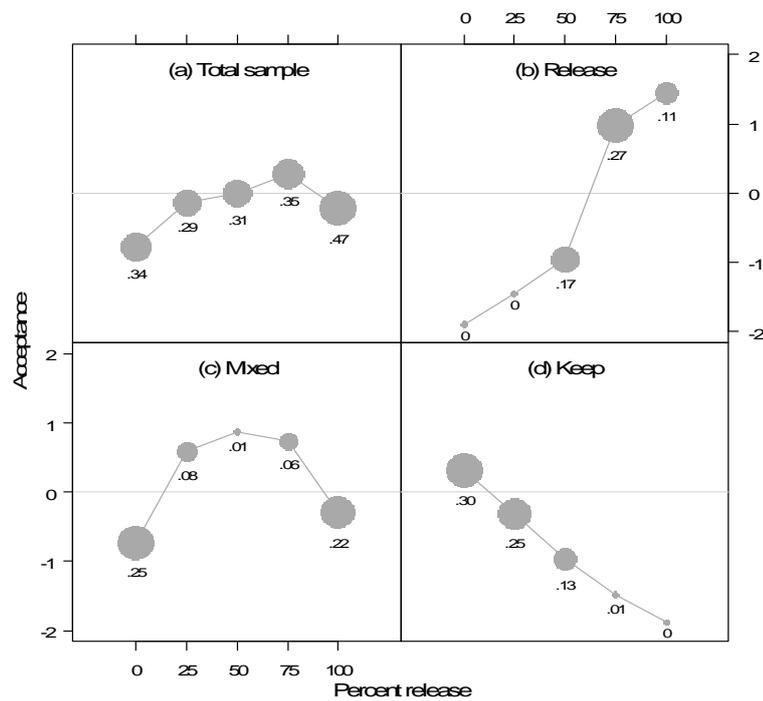


Figure 5. Catch and release social norm curves of the total sample and of the three groups created from the total sample. The horizontal axis is the percentage of the catch to be released, and the vertical axis is the acceptance of releasing the fish, where 2 indicates strong support and -2 indicates strong opposition. Numbers below the bubbles are PCI₂ values.

6 Conclusions

The goal of this thesis was to analyze the conditions for development of hunting and fishing tourism from a human dimensions perspective, which is the social aspect of sustainable development.

In general, the results showed that there is high support for hunting and fishing in Sweden. Hunting was accepted by 84% (Paper I) and fishing by 86% of the general public (Paper III). The high support is not surprising because recreation in nature is important for many Swedes (Hörnsten, 2000), and the participation in hunting and fishing is high. This indicates that the social conditions for hunting and fishing tourism are not constrained by negative attitudes from the general public. However, support was consistently lower when the hunting and fishing activities lacked a consumptive motive (Paper I, III & IV). The harvest of wild animals was commonly accepted if the meat was used for food. Because the typical hunting and fishing tourists mostly have recreational motives (Fedler & Ditton, 1994; Boman & Mattsson, 2012), this attitude could constrain hunting and fishing tourism from reaching its full potential. A common attitude in Sweden seems to be that utility created by using an animal for food is more important than the utility created from the recreational value. If this attitude stems from ethical values about how animals should be treated, it is probably very stable and hard to change. However, there is also the possibility that the recreational value is greatly underestimated, in which case an information campaign might result in an attitude change.

Previous research have argued that urbanization can lead to less contact with wildlife and nature, and this can cause a shift in value orientations and lower support for hunting and fishing (Manfredo *et al.*, 2009; Arlinghaus *et al.*, 2012). If such a shift is present in Sweden, the social sustainability of hunting and fishing tourism might decrease in the future. However, the results from Paper I do not indicate a negative trend. Instead, the attitude trends were stable or even slightly increasing with time. Urban or rural residence was not a good

predictor neither for local residents' support of tourism (Paper II) or the general public's support of C&R (Paper III). Any differences found were instead driven by personal experience with hunting, fishing and other types of nature recreation. Local residents' attitudes were affected when they belonged to a household where someone fished or hunted (Paper II), and support for fishing increased when the respondent had personal experience of harvesting wild berries, mushrooms, fish or game meat from nature (Paper III). Recent research has shown that access to game meat is an important factor for support of hunting in Sweden (Ljung *et al.*, in press). Taken together I conclude that continued urbanization does not necessarily result in lower support for hunting and fishing as long as Swedes maintain their relationship with nature.

The results from Paper II did not show a significant urban/rural effect on attitudes but there was an effect from the respondents own participation in fishing and hunting. Hunters and anglers were more positive about differentiating the Right of Public Access to limit access for visitors. Even though the general support for hunting and fishing was high, this indicates that an increase in the number of visitors can be perceived as a negative impact.

Analysis of the questions regarding C&R showed that a utilitarian orientation is common in Sweden. The general public's support for fishing is higher when the angler keeps the fish for food than when the angler releases the fish (Paper III). By dividing recreational anglers into groups based on their C&R norm, we found that more than half of the respondents accepted partial C&R but wanted to keep part of their catch (Paper IV). No-kill fishing was preferred by 25% of our sample.

In summary the social conditions for the development of hunting and fishing tourism are good. The acceptance from the general public is high and stable in time. However many of the attitudes we measured in the general public were not well developed, i.e. not central to identity and not based on direct experience. This type of attitudes can change quickly. Common in all my studies was the positive relation between a utilitarian motive and the acceptance. Developers of tourism must take this into account as activities without utilitarian motive, e.g. trophy hunting or no-kill angling, might have low acceptance from the general public. The result also highlight the risks of conflicts with local residents, the risks for conflicts are especially high when the local residents themselves are users of the resource to be developed. This thesis contributes to the understanding of the social part of sustainability. This understanding can help create development programs or business plans for hunting and fishing tourism, but environmental and economic potentials and constraints should also be considered.

6.1 Management

Many entrepreneurs have stated that they need abundant wildlife populations with many trophy-sized individuals and exclusive access to the wildlife to be able to offer a product with high customer demand (Waldo & Paulrud, 2012). Local hunters and anglers have expressed concerns about competition for hunting and fishing opportunities. Adaptive management with the goal to create the desired populations could result in populations optimized for the needs of the entrepreneurs. However, the results in Paper II show that conflict with local resource users is likely if access for locals is reduced or crowding increases.

If the goal is to create a fishery with high recreational values and still allow a high fishing pressure C&R management can appear to be the good way to manage a recreational fishery, and support for C&R is high. However, support for consumptive use is even higher among both active anglers and the general public (Papers III & IV). Support from active anglers also depended on situational factors such as the targeted species or type of equipment used. Knowledge about attitudes and norms among the potential customer base can help determine when and where implementation of C&R is likely to succeed. For example, our data showed that a majority of those who target European pike not only accepted but also preferred to release every fish caught. This indicates that C&R management for pike has high social potential for accepted by the majority of the potential customer group. In contrast, only 5% of anglers fishing for char preferred to release every fish.

7 Future research

In the studies described in this thesis, we have measured and analyzed attitudes and norms related to hunting and fishing. The choices of measured concepts were often governed by the availability of already collected data. Often this means that I analyze the attitude toward the basic activity (hunting or fishing) and assume that this is a good proxy for the attitude toward tourism based on the activity. Generally I think this assumption holds but might overestimate support as some might accept the activity per se but disapprove when it is commercialized. As discussed in Paper II users of the resource can perceive tourism as competition but more general attitude against commercialization of nature can also exist. To examine tourism the best thing would of course be to ask questions about tourism.

Future studies should also measure actual behaviors in order to verify how well the attitudes and norm can be used as predictors. An example could be to go out in the field and measure how many fish are actually released by anglers and under what circumstances. Completing more studies on how the norms and attitudes are changing over time is also important. Younger anglers were more positive toward C&R (Paper IV) which could mean that support for C&R is increasing as older people are replaced by a younger generation or that people tend to become more consumptive oriented as they get older. Repeated measurements over time (preferably with a fixed panel of respondents) are needed to answer this and other questions.

Entrepreneurs active in the tourism sector are important stakeholders that were not included in this study. This group has been studied in research that focused on the economic sustainability of nature tourism (Alatalo, 2003; Waldo & Paulrud, 2012). In Sweden, social tensions might arise over the commercial use of RPA. An entrepreneur cannot afford to be in conflict with the general public, the customers, or the local residents in the area.

The study of values, attitudes and norms in relation to C&R has recently gained a lot of interest and many articles are published. I have, however, not yet seen any qualitative studies on C&R. Qualitative studies of C&R can give insight in the arguments people use when attitudes and norms are formulated.. Better quantitative studies can then be constructed assessing more theoretically complete measures of norms, attitudes and motivations to better analyze what factors are most important. These studies would result in a better understanding of how norms emerge and how attitudes change, which could facilitate wildlife management from a human dimensions perspective.

C&R is often advertised as a way to maintain abundant populations while allowing a high fishing pressure. Because C&R is a purely recreational activity it creates an animal welfare issue concerning the use of wild animals for recreation. The voluntary practice of C&R seems to be increasing in the Nordic countries. However, both the literature and personal observations indicate a large variation in C&R behavior. Studies that analyze behavioral differences in different countries, different rivers or even the same angler fishing in different locations can provide data that describe the current conditions and can be used to predict future trends. We introduced norm acceptance curves in the context of C&R angling in Paper IV with promising results. However, our sample and settings for the norm was too broad to give precise standards. To improve on this we need to go to the field and observe actual behavior. We could for example go to a site with high catch rate per angler (e.g. high quality fishing camp or the mountain area or tour boat on the west coast). Anglers would then be observed for how many fish they catch, how many they keep, how many they release, and when they stop fishing. The data can then be aggregated to social norms that describe accepted behavior in different situations.

Norm and norm acceptance curves could also be used to study acceptance for different types of behavior in hunting. For example, in Sweden many species have a hunting season specifying the dates when a species is allowed to be hunted. In many cases there are no quotas on how many animals the hunting right owner can kill. It would be interesting to examine e.g. how many doves or geese it is accepted to kill in one day. I speculate that the norm in many cases differ a lot between hunters and the general public. Knowledge about norms and standards can be a good predictor for behavior and can identify possible areas for conflicts. They are also useful to set management goals within acceptable limits.

This thesis analyzed the positive and negative aspects of hunting and fishing tourism from a human dimensions viewpoint. Future research should combine environmental, economic and social sustainability to produce a more

complete understanding for the potential of hunting and fishing tourism as a development strategy for rural areas.

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Appendix 1: Questionnaire to the public (2012)



EN UNDERSÖKNING OM DJUR OCH NATUR

Detta är en undersökning om människors inställning till djur, natur och jakt. Vi uppskattar om du har möjlighet att besvara varje fråga. Dina svar är konfidentiella och kommer inte att kunna spåras till dig. Vi är mycket tacksamma för att du tar dig tid så att vi får en bättre kunskap om vad man tycker i dessa frågor.

Det är mycket viktigt att den person som undersökningen är adresserad till också är den person som besvarar frågorna. Försök att svara utifrån vad du tycker är rätt och riktigt. Din medverkan är mycket värdefull. Tack!

Posta dina svar i bifogat kuvertet senast inom en vecka. Portot är betalt. Du kan också välja att svara via survey.slu.se

I det första avsnittet möter du några allmänna frågor om djur och natur.

A1. Hur intresserad är du av att vara i skog och mark?

- 1 Mycket intresserad
- 2 Ganska intresserad
- 3 Inte speciellt intresserad
- 4 Ointresserad

A2. Är ditt intresse för skog och mark beroende av att det finns vilt där, d v s vilda djur och fåglar?

- 1 I mycket hög grad
- 2 I ganska hög grad
- 3 I ganska låg grad
- 4 Inte alls

A3. Tycker du att det är viktigt att det finns vilt där du bor?

- 1 Mycket viktigt
- 2 Ganska viktigt
- 3 Inte speciellt viktigt
- 4 Oviktigt

A4. Finns det några vilda djur som du är rädd för att möta när du är ute i naturen?

- 1 Nej
- 2 Älg
- 3 Rådjur
- 4 Björn
- 5 Orm
- 6 Lodjur
- 7 Varg
- 8 Vildsvin
- 9 Järv
- 10 Annat djur:

Vi frågar nu om dina erfarenheter av landsbygden och om några aktiviteter.

B1. Ungefär hur mycket tid tillbringar du på landet varje år?

- 1 Jag bor på landsbygden
- 2 Större delen av min tid
- 3 Mycket av min tid
- 4 Lite av min tid
- 5 Mycket lite av min tid
- 6 Ingen tid alls

B2. Hur ofta bor du i ett fritidshus på landet som du eller någon i din familj hyr eller äger?

- 1 Flera gånger per år
- 2 En eller par gånger per år
- 3 Mindre än en gång per år
- 4 Aldrig

B3. Vilka av följande saker har du gjort det senaste året?

Kryssa i de alternativ som bäst stämmer för dig.

- 1 Gått på kortare vandring (1-3 tim)
- 2 Vandrat över dagen (endagstur)
- 3 Vandrat med övernattnig
- 4 Fiskat
- 5 Jagat
- 6 Plockat svamp eller bär
- 7 Cyklat (inklusive mountainbike)
- 8 Samlat eller huggit ved
- 9 Naturfotograferat
- 10 Fågelskådad eller studerat naturen
- 11 Ridit
- 12 Åkt skidor utför
- 13 Åkt längdåkningssskidor
- 14 Åkt snowbord
- 15 Åkt snöskoter
- 16 Paddlat eller åkt båt

Nu vill vi veta mer om vad du tycker om frågor som rör jakt och fiske.

C1. Vilken är din grundinställning till jakt?

- 1 Jag är positiv till jakt
- 2 Jag accepterar jakt
- 3 Jag är tveksam till jakt
- 4 Jag är negativ till jakt

C2. Vilken är din inställning till jakt utövad av urfolk som eskimåer och indianer?

- 1 Stödjer fullständigt
- 2 Stödjer med tvekan
- 3 Tar avstånd med tvekan
- 4 Tar avstånd fullständigt

C3. Vilken är din inställning till jakt på älg, hjort och rådjur, om anledningen är att få spänning och avkoppling?

- 1 Stödjer fullständigt
- 2 Stödjer med tvekan
- 3 Tar avstånd med tvekan
- 4 Tar avstånd fullständigt

C4. Vilken är din inställning till jakt på älg, hjort och rådjur, om anledningen är att få avkoppling och kött?

- 1 Stödjer fullständigt
- 2 Stödjer med tvekan
- 3 Tar avstånd med tvekan
- 4 Tar avstånd fullständigt

C5. Nu vill vi veta vad du tycker om sportfiske. Med sportfiske menar vi fiske på fritiden med fiskespö.

Vilken är din...	Mycket negativ	Negativ	Neutral	Positiv	Mycket positiv
... grundinställning till sportfiske?	<input type="checkbox"/>				
... inställning till sportfiske, om fisken som fångas släpps tillbaka?	<input type="checkbox"/>				
... inställning till sportfiske, om fisken som fångas behålls som matfisk?	<input type="checkbox"/>				

C6. Vilken är din inställning till ett sportfiske där fisken som fångas släpps tillbaka även om den är lovlig att ta med sig hem?

Med lovlig menas att du får behålla fisken enligt gällande regler.

Mycket negativ	Negativ	Neutral	Positiv	Mycket positiv
<input type="checkbox"/>				

C7. Vilken är din inställning till fritidsfiske med nät?

Mycket negativ	Negativ	Neutral	Positiv	Mycket positiv
<input type="checkbox"/>				

Nu vill vi veta lite om dina egna erfarenheter och din inställning till några aktuella frågor.

C8. Hur ofta brukar ditt hushåll använda...	Aldrig	En eller ett par gånger per år	Minst en gång i månaden	Minst en gång i veckan
1a. Bär som ni plockat själva	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1b. Svamp som ni plockat själva	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Kött från vilt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Kött från vilt som någon i hushållet bidragit med	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Fisk någon i hushållet bidragit med	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Nu följer frågor om skyddade naturområden - naturreservat och nationalparker. Syftet att skydda natur kan variera, men oftast är det för att bevara eller återställa värdefulla naturmiljöer och biologisk mångfald samt att tillgodose behov av områden för friluftslivet. Även om du aldrig har besökt något skyddat naturområde eller anser dig ha dålig kunskap om dem ber vi dig att svara på frågorna så uppriktigt som möjligt.

D1. Vad anser du om mängden skyddade naturområden i Sverige?

Alldeles för lite skyddad natur	Något för lite	Lagom	Något för mycket	Alldeles för mycket skyddad natur	Vet inte
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

D2. Hur väl beskriver följande påståenden vad du tycker om skyddade naturområden generellt?

	Tar helt avstånd	Tar delvis avstånd	Vet inte	Instämmer delvis	Instämmer helt
Trevliga utflyktsmål	<input type="checkbox"/>				
Viktiga för biologisk mångfald	<input type="checkbox"/>				
"Död hand" över bygden	<input type="checkbox"/>				
Avstressande miljöer	<input type="checkbox"/>				
Svårtillgängliga	<input type="checkbox"/>				
Okända	<input type="checkbox"/>				
Outnyttjade	<input type="checkbox"/>				
Natursköna	<input type="checkbox"/>				
Kulturellt intressanta	<input type="checkbox"/>				
Viktiga för kommande generationer	<input type="checkbox"/>				

D3. Nedan följer tio påståenden kring skyddade naturområden. Vad tycker du är viktigt när naturområden skyddas?

	Tar helt avstånd	Tar delvis avstånd	Vet inte	Instämmer delvis	Instämmer helt
Lokalbefolkningen ska ha stort inflytande	<input type="checkbox"/>				
Ska utformas så att besök underlättas	<input type="checkbox"/>				
Man ska få köra snöskoter och terrängfordon	<input type="checkbox"/>				
Ridning ska vara tillåtet	<input type="checkbox"/>				
Fiske ska vara tillåtet	<input type="checkbox"/>				
Man ska få göra upp eld var man vill	<input type="checkbox"/>				
Att få jaga ska vara tillåtet	<input type="checkbox"/>				
Övernattning i tält ska begränsas	<input type="checkbox"/>				
Ska inrättas främst för att skydda naturen	<input type="checkbox"/>				
Skogsbruk ska få bedrivas	<input type="checkbox"/>				

I nästa avsnitt frågar vi dig om dina direkta erfarenheter av jakt.

E1. Jagade din pappa när du växte upp?

- 1 Ja
- 2 Nej
- 3 Vet inte

E2. Jagade din mamma när du växte upp?

- 1 Ja
- 2 Nej
- 3 Vet inte

E3. Är det någon i ditt nuvarande hushåll som jagar?

- 1 Ja
- 2 Nej

E4. Hur många av dina närmaste vänner jagar?

- 1 Så gott som alla
- 2 Mer än hälften
- 3 Hälften
- 4 Ett fåtal av dem
- 5 Ingen av dem

E5. Har jakt i dina hemtrakter någon gång hindrat dig från att gå ut i skogen?

- 1 Nej, aldrig
- 2 Ja, någon gång

E6. Har du jagat de senaste 12 månaderna?

- 1 Ja
- 2 Nej

E7. Har du någon gång jagat?

- 1 Ja
- 2 Nej

E8. Har du någon del av jägarexamen?

- 1 Ja
- 2 Nej

Vargen har varit i fokus det senaste året. Huvuddelen av våra vargar lever i dag i Svealand och norra Götaland. Eftersom invandring av varg från Finland via norra Sverige till Svealand och norra Götaland sällan sker har Riksdagen bestämt att vi måste göra något för de svenska vargarna.

Vi frågar nu vad du tycker om varg och hur vi i Sverige ska ta hand om dem.

G1. Hur viktiga är vargar för dig personligen?

Extremt oviktiga	Mycket oviktiga	Något oviktiga	Varken viktiga eller oviktiga	Något viktiga	Mycket viktiga	Extremt viktiga
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

G2. Vad tycker du om att ha vargar i Sverige?

Jag ogillar starkt att ha vargar i Sverige	Jag ogillar att ha vargar i Sverige	Jag är neutral om att ha vargar i Sverige	Jag tycker om att ha vargar i Sverige	Jag tycker mycket om att ha vargar i Sverige
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

G3. Vilket av följande påståenden ställer du dig bakom?

Kryssa i ett alternativ

- Jag bryr mig inte om hur många vargar som det finns i Sverige, så länge som de tillåts existera här.
- Jag skulle vilja ha fler vargar i Sverige.
- Jag vill inte att det ska finnas fler vargar i Sverige än vad som redan finns.
- Jag vill inte att det ska finnas några vargar alls i Sverige.

G4. Skulle du kunna acceptera att ha varg i närheten av platsen där du bor?

- Nej, absolut inte
- Nej, knappast
- Vet inte
- Ja, i viss mån
- Ja, absolut

G5. Var i Sverige tycker du att vargar ska få leva?

Kryssa för ett eller flera områden där du tycker att vargen ska få leva.

I hela Sverige	<input type="checkbox"/>
Inte någonstans i Sverige	<input type="checkbox"/>
I hela fjällkedjan	<input type="checkbox"/>
I nationalparker, skyddade områden	<input type="checkbox"/>
I Norrland	<input type="checkbox"/>
I Svealand	<input type="checkbox"/>
I Götaland	<input type="checkbox"/>

G6. Det finns olika sätt att minska inaveln bland de svenska vargar som lever i Svealand och norra Götaland. Stödjer du...

	Tar fullständigt avstånd	Tar delvis avstånd	Instämmer med tvekan	Instämmer helt
... att det skapas en korridor längs norrlandskusten, så att vargar kan vandra ner?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... att det skapas direktkontakt med finska vargar, genom att tillåta vargrevir längs norrlandskusten?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... att flytta vargar som vandrar in i norra Sverige till Götaland och Svealand?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... att flytta vuxna vargar från ett annat land?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... att flytta vargvalpar från ett annat land till vilda svenska vargars lyor?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... att sätta ut vargvalpar från djurparker i vilda svenska vargars lyor?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Nu ber vi dig ta ställning till frågor om förvaltning av våra svenska vargar.
Den svenska vargstammen består av cirka 300 djur.

G7. Vad anser du personligen om att under nästa år flytta in följande antal vargar till Sverige?

	Är helt emot	Är delvis emot	Neutral	Stödjer delvis	Stödjer helt
En varg	<input type="checkbox"/>				
Två vargar	<input type="checkbox"/>				
Tre vargar	<input type="checkbox"/>				
Fyra vargar	<input type="checkbox"/>				
Fem vargar	<input type="checkbox"/>				
Inga vargar alls	<input type="checkbox"/>				

G8. Vad anser du personligen om att inom de närmaste fem åren flytta in följande antal vargar till Sverige?

	Är helt emot	Är delvis emot	Neutral	Stödjer delvis	Stödjer helt
Fem vargar	<input type="checkbox"/>				
Tio vargar	<input type="checkbox"/>				
Femton vargar	<input type="checkbox"/>				
Tjugo vargar	<input type="checkbox"/>				
Tjugofem vargar	<input type="checkbox"/>				
Inga vargar alls	<input type="checkbox"/>				

G9. Vilka grupper tycker du bör få ersättning för de skador vargen kan orsaka?

	Tar fullständigt avstånd	Tar delvis avstånd	Instämmer med tvekan	Instämmer helt
Renägare för förlorade renar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lantbrukare för förlorad boskap	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jägare för förlorat vilt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Husdjursägare för förlorad katt, hund eller annat husdjur	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

G10. Det finns flera tänkbara sätt att ta hand om vargar som orsakar problem. Stödjer du att man för att minska problemen ...

	Tar fullständigt avstånd	Tar delvis avstånd	Instämmer med tvekan	Instämmer helt
sätter upp stängsel för att hindra vargar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
skrämmar i väg vargar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
flyttar vargar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
märker vargar med sändare, så att de kan övervakas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
tar bort ungarna från vargar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
skjuter vargar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fångar vargar i fälla för att döda dem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
använder gift för att döda vargar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

G11. Nu ber vi dig ta ställning till när det är acceptabelt att jaga varg. Instämmer du eller tar du avstånd från följande påståenden. Är det acceptabelt att begränsa vargens antal och utbredning med hjälp av jakt...

	Tar fullständigt avstånd	Tar delvis avstånd	Instämmer med tvekan	Instämmer helt
... om varg konkurrerar med människan om det jaktbara viltet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... om man vill minska risken att varg tar tamdjur, ex. kor, får, ren	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... om människor är rädda för varg	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... om varg har sökt sig in i tätt befolkade områden	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

G12. Är det acceptabelt att man dödar varg som angriper en hund som jagar?

- 1 Ja
2 Nej
3 Vet inte

G13. Vilken är din inställning till jakt på varg om anledningen är att få spänning och avkoppling?

- 1 Stödjer fullständigt
- 2 Stödjer med tvekan
- 3 Tar avstånd med tvekan
- 4 Tar avstånd fullständigt

G14. Nu ber vi dig ta ställning till när det är acceptabelt att mata stora rovdjur som björn, järv, lo och varg. Instämmer du eller tar du avstånd från följande påståenden. Är det acceptabelt att mata stora rovdjur för att

	Tar fullständigt avstånd	Tar delvis avstånd	Instämmer med tvekan	Instämmer helt
... minska skador på tamdjur	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... lättare kunna få se dem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... lättare kunna fånga rovdjuren i fälla	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... lättare kunna jaga rovdjur	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

G15. Är det acceptabelt att man reglerar antalet vargar med hjälp av jakt?

- 1 Ja
- 2 Nej
- 3 Vet inte

I nästa avsnitt frågar vi om tillit.

	Tar helt avstånd	Tar delvis avstånd	Neutral	Instämmer delvis	Instämmer helt
G16. Jag känner tillit till att länsstyrelsen hanterar frågor som berör varg med hänsyn till människor i områden med varg.	<input type="checkbox"/>				
G17. Jag känner tillit till att naturvårdsverket hanterar frågor som berör varg med hänsyn till människor i områden med varg.	<input type="checkbox"/>				
G18. Jag känner tillit till att riksdagen hanterar frågor som berör varg med hänsyn till människor i områden med varg.	<input type="checkbox"/>				

Nedan följer tolv påstående rörande möten med varg eller björn.

Hur känner du inför att möta en varg?	Tar helt avstånd	Tar delvis avstånd	Neutral	Instämmer delvis	Instämmer helt
H1. Det känns omöjligt för mig att i förväg förstå ut hur en varg kommer att röra sig	<input type="checkbox"/>				
H2. Om jag kom nära en varg skulle jag förmodligen bli attackerad	<input type="checkbox"/>				
H3. Om jag träffade på en varg skulle jag kunna hantera situationen på ett bra sätt	<input type="checkbox"/>				
H4. Jag tror mig kunna förutse en vargs rörelse	<input type="checkbox"/>				
H5. Jag tror att de flesta vargar är ofarliga för mig	<input type="checkbox"/>				
H6. Jag skulle nog tappa kontrollen om en varg kom nära mig	<input type="checkbox"/>				

Hur känner du inför att möta en björn?	Tar helt avstånd	Tar delvis avstånd	Neutral	Instämmer delvis	Instämmer helt
H7. Det känns omöjligt för mig att i förväg förstå ut hur en björn kommer att röra sig	<input type="checkbox"/>				
H8. Om jag kom nära en björn skulle jag förmodligen bli attackerad	<input type="checkbox"/>				
H9. Om jag träffade på en björn skulle jag kunna hantera situationen på ett bra sätt	<input type="checkbox"/>				
H10. Jag tror mig kunna förutse en björns rörelse	<input type="checkbox"/>				
H11. Jag tror att de flesta björnar är ofarliga för mig	<input type="checkbox"/>				
H12. Jag skulle nog tappa kontrollen om en björn kom nära mig	<input type="checkbox"/>				

H13. Känner du rädsla för att varg ska angripa människor?

Aldrig 1 2 3 4 5 6 7 8 9 10 Alltid

H14. Känner du rädsla för att varg ska angripa husdjur eller tamdjur?

Aldrig 1 2 3 4 5 6 7 8 9 10 Alltid

H15. Känner du rädsla för att björn ska angripa människor?

Aldrig 1 2 3 4 5 6 7 8 9 10 Alltid

H16. Känner du rädsla för att björn ska angripa husdjur eller tamdjur?

Aldrig 1 2 3 4 5 6 7 8 9 10 Alltid

I det här stycket ber vi dig om lite bakgrundsinformation.

I1. Var bor du idag?

- 1 På landsbygden, eller ort med färre än 200 invånare
- 2 Ort med färre än 2 000 invånare
- 3 Ort med 2 001-10 000 invånare
- 4 Ort med 10 001-180 000 invånare
- 5 Stockholm, Göteborg eller Malmö

I2. Har du, eller din familj, tamdjur som till exempel kor, hästar eller får?

- 1 Ja, men bara för vårt hushålls eget bruk
- 2 Ja, en del eller hela hushållets inkomst kommer från djurhållning
- 3 Nej

I3. När du växte upp, fanns det då hund, katt, fågel eller andra djur i familjen?

- 1 Ja, under hela min uppväxt
- 2 Ja, men bara under delar av min uppväxt
- 3 Nej

14. **Hur många år har du bott på din nuvarande bostadsort?**

- 1 0-5 år
- 2 6-10 år
- 3 11-15 år
- 4 Mer än 15 år
- 5 Vet inte

15. **Hur långt från din uppväxtplats bor du nu?**

- 1 Jag bor kvar där jag växte upp.
- 2 1-10 kilometer (0,1-1 mil)
- 3 11-100 kilometer (1,1-10 mil)
- 4 101-1000 kilometer (10,1-100 mil)
- 5 Jag bor i dag mer än 1000 kilometer (100 mil) från min uppväxtplats
- 6 Vet inte

16. **Nu undrar vi var du, och dina föräldrar växte upp.** Var bodde du, respektive din pappa och din mamma, större delen av era liv före 18 års ålder?

	Jag växte upp	Min pappa växte upp	Min mamma växte upp
På landsbygden eller ort med färre än 200 invånare	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ort med färre än 2000 invånare	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ort med 2 001-10 000 invånare	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ort med 10 001-180 000 invånare	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stockholm, Göteborg eller Malmö	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Annat land i Norden	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Annat land i Europa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Land utanför Europa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vet inte	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

17. **Är du man eller kvinna?**

- 1 Man
- 2 Kvinna

I8. **Vilket år är du född?**

Jag är född 19 _____

I9. **Hur många personer består ditt nuvarande hushåll av?**

- 1 1 person, jag är ensamstående
- 2 2 personer
- 3 3 personer
- 4 4 personer
- 5 5 eller flera personer i hushållet

I10. **Finns det några barn i ditt nuvarande hushåll?**

- 1 Nej
- 2 Ja, 6 år eller yngre
- 3 Ja, 7-12 år
- 4 Ja, 13-18 år
- 5 Ja, 19 år eller äldre

I11. **Vilken utbildning har du?**

- 1 Obligatorisk skola (t.ex. grundskola, folkskola)
- 2 Yrkesutbildning (yrkesskola, fackskola, institut av olika slag)
- 3 Gymnasieutbildning (även realexamen, folkhögskola)
- 4 Universitet eller högskoleutbildning

I12. **Ungefär hur stor är ditt hushålls sammanlagda inkomst före skatt per månad?**

- 1 Lägre än 10 000 kr per månad före skatt
- 2 10-20 000 kr
- 3 20-30 000 kr
- 4 30-40 000 kr
- 5 40-50 000 kr
- 6 50-60 000 kr
- 7 Mer än 60 000 kr per månad före skatt

Här kommer några frågor som bara riktar sig till dig som äger ett fritidshus.

J1. I vilken kommun har du ditt fritidshus: _____

J2. Tycker du att det är viktigt att det finns vilt i närheten av ditt fritidshus?

- 1 Mycket viktigt
- 2 Ganska viktigt
- 3 Inte speciellt viktigt
- 4 Oviktigt

J3. Har jakt i närheten av ditt fritidshus hindrat dig från att gå ut i skogen?

Nej, aldrig Ja, någon gång Ja, flera gånger

J4. Har rovdjur i närheten av ditt fritidshus hindrat dig från att gå ut i skogen?

Nej, aldrig Ja, någon gång Ja, flera gånger

	Nej, aldrig	Ja, någon gång	Ja, flera gånger
Björn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Järv	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Varg	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

J5. Skulle du kunna acceptera något av de stora rovdjuren i närheten av ditt fritidshus?

Nej absolut inte Nej knappast Vet inte Ja, i viss mån Ja, absolut

	Nej absolut inte	Nej knappast	Vet inte	Ja, i viss mån	Ja, absolut
Björn	<input type="checkbox"/>				
Järv	<input type="checkbox"/>				
Lo	<input type="checkbox"/>				
Varg	<input type="checkbox"/>				

J6. Är det någon i ditt nuvarande hushåll som jagar i närheten av fritidshuset?

- 1 Ja
- 2 Nej

Appendix 2: Questionnaire to anglers (2011)



Sveriges
lantbruksuniversitet



En undersökning om sportfiske

Detta är en undersökning om svenska sportfiskares fiskevanor. Undersökningen genomförs av Sveriges lantbruksuniversitet och syftar till att ge kunskap om aktuella frågor inom svensk sportfiskeförvaltning.

Vi är mycket tacksamma att du tar dig tid att besvara frågorna i undersökningen. Genom att medverka i undersökningen bidrar du till ökad kunskap om svenskt sportfiske. Det är viktigt för att en framtida fiskeförvaltning ska ske i harmoni med naturen, människan och samhället.

Det är mycket viktigt att den person som undersökningen är adresserad till också är den person som besvarar frågorna. Dina svar är konfidentiella och kommer inte att kunna spåras till dig.

Posta dina svar i bifogat kuvert eller svara på Internet (se baksidan på detta häfte). Svara senast inom en vecka.

Tack och vänliga hälsningar,

Anders Kagervall och Gustav Hellström
Institutionen för vilt, fisk och miljö, SLU Umeå - Projektansvariga

I det första avsnittet möter du några allmänna frågor om ditt eget sportfiske.

A1. Hur viktig är sportfiske för dig som fritidssysselsättning?

- Helt oviktig
- Inte speciellt viktig
- Ganska viktig
- Mycket viktig

A2. Är du medlem i någon fiskeklubb?

- Ja
- Nej

A3. Fiskade någon av dina föräldrar när du växte upp?

- 1 Ja, min pappa
- 2 Ja, min mamma
- 3 Ja, båda mina föräldrar
- 4 Nej, ingen av mina föräldrar

A4. Hur intresserad är du av följande fiskemetoder?

	Inte alls intresserad	Inte speciellt intresserad	Ganska intresserad	Mycket intresserad
1 Trollning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Flugfiske	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Haspel/Spinnfiske	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Pimpelfiske från is (inte angling)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Angling / Ismete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Havsfiske (med dörj/pirk)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Mete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**A5. Av ovanstående metoder, vilken är din absoluta favorit
(ange bara en metod, skriv metodens nummer)**

Metod nr : _____

A6. Hur intresserad är du att fiska efter följande arter?

		Inte alls intresserad	Inte speciellt intresserad	Ganska intresserad	Mycket intresserad
1	Gädda	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Abborre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Gös	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Lake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Sik	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Öring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Lax	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Harr	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	Röding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Regnbåge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	Annan laxfisk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	Äl	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	Karp	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	Sutare	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	Braxen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	Annan karpfisk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17	Torsk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	Annan torskfisk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19	Plattfisk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20	Strömning/Sill	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21	Näbbgädda	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22	Multe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23	Makrill	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

A7. Vilken av ovanstående arter fiskar du allra helst efter?
(ange bara en art, skriv artens nummer)

Fisk nr: _____

A8. Var föredrar du att fiska?

	Inte alls	Ibland	Gärna	Mycket gärna
Fjällen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Havet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kusten	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insjöar (inte Vänern eller Vättern)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vänern eller Vättern	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Åar / Bäckar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Älvar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Put & Take vatten	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

A9. Hur många dagar sportfiskade du under de senaste 12 månaderna?

- 0
- 1-5
- 6-10
- 11-20
- 21-30
- fler än 30 dagar

A10. Har du under de senaste 12 månaderna deltagit i någon av följande fiskevårdsåtgärder?

	Ja	Nej
Förbättrat fiskens levnadsmiljö	<input type="checkbox"/>	<input type="checkbox"/>
Underlättat fiskvandring	<input type="checkbox"/>	<input type="checkbox"/>
Utsättning av fisk	<input type="checkbox"/>	<input type="checkbox"/>

Annan, vilken:

Nu följer frågor om vad som är viktigt för dig i ditt sportfiske.

B1. Hur väl instämmer du i följande påståenden om varför du fiskar? Jag fiskar för att...

	Instämmer inte alls	Instämmer till liten del	Instämmer till stor del	Instämmer helt
komma ut i naturen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
slappna av	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
uppleva nöjet i att fånga fisk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fånga fisk att äta	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
få vara ensam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
umgås med vänner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
umgås med familj	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
utbilda barn och ungdom	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
få motion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
vara nära vatten	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
vara utomhus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
komma ifrån vardagen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
uppleva nya saker	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
få möjlighet att tävla	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
testa min utrustning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
utveckla min fisketeknik	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B2. Vilka faktorer påverkar var du fiskar?

	Inverkar inte alls	Inverkar något	Inverkar mycket	Är avgörande
Det finns mycket fisk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Det finns stor fisk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Det finns vild fisk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fiskevattnet ligger nära där jag bor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Att få uppleva vildmarkskänsla	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Billigt att fiska	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lättillgängliga fiskeplatser	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ingen trängsel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exklusivt fiske	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fiskevattnet är endast upplåtet för min favoritfiskemetod	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B3. Hur väl instämmer du i följande påståenden?

	Instämmer inte alls	Instämmer till liten del	Instämmer till stor del	Instämmer helt
För att en fisketur ska vara lyckad vill jag fånga åtminstone en fisk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Det som ger mig mest är att fånga stora och svärfångade fiskar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Det är viktigt att fånga fisk även om jag inte gillar att äta fisk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Om jag kan bidra till att bevara fiskbestånd genom att släppa tillbaka min fångst gör jag gärna det	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ju mer fisk jag fångar desto lyckligare blir jag	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jag drömmer om att fånga en riktigt stor fisk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
När jag åker och fiskar är jag lika nöjd även om jag inte fångar någon fisk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jag äter vanligtvis den fisk jag fångar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fiske skulle vara roligare om jag slapp rensa och äta fisk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Det är mer tillfredställande att släppa tillbaka en fisk än att behålla den	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chansen att fånga en stor fisk är viktigare för mig än att fånga många fiskar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
En fisketur kan vara lyckad även om jag inte fångar någon fisk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jag är lika nöjd även om jag måste släppa tillbaka den fisk jag fångar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jag fångar hellre 10 små fiskar än en eller två stora	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jag föredrar att fiska där jag har chans att fånga stora fiskar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Nu följer ett avsnitt med frågor om att släppa tillbaka fångad fisk. Många olika faktorer inverkar på fiskarens beslut att behålla eller släppa tillbaka den fångade fisken.
Vi är intresserade av dina erfarenheter och tankar kring detta.

Med lovlig fisk menar vi fisk som du får behålla enligt gällande fiskeregler.

C1. Vilken är din grundinställning till att släppa tillbaka fisk som fångats vid sportfiske?

- 1 Positiv
- 2 Accepterande
- 3 Tveksam
- 4 Negativ

C2.- Vad anser du om att släppa tillbaka fisk om...

	Mycket negativ	Delvis negativ	Delvis positiv	Mycket positiv
fisken är under minimimått	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fisken är lovlig enligt gällande regler	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fisken är inplanterad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fisken är olämplig som matfisk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fisken är av annan art än fiskaren tänkt sig	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fisken inte finns naturligt i Sverige	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fisken inte är köns mogen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fisken är vild	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fisken är skadad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fisken är ovanligt stor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fisken är felkrokad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

C3.- Vad anser du om att släppa tillbaka fisk för att...

	Mycket negativ	Delvis negativ	Delvis positiv	Mycket positiv
fiskaren själv ska kunna fånga den igen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
någon annan ska kunna fånga den igen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
bevara beståndet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fiskaren redan fyllt sin fångst kvot	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fiskaren inte har möjlighet att ta vara på fisken	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fiskaren tycker det är jobbigt/omständigt att ta vara på fisken	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fiskaren redan har fångat sin matfisk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fiskaren vill visa respekt för fisken	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

C4.- Vad anser du om att sportfiskare tar upp fisk för att...

	Mycket negativ	Delvis negativ	Delvis positiv	Mycket positiv
äta fisken	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
sälja fisken	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ge till katten	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fisken var lovlig att behålla	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fisken missgynnar fiskarens favoritfisk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
visa upp fisken för andra	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fisken var ovanligt stor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
sportfiske ändå inte påverkar beståndet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
visa respekt för fisken	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

C5. Har du under de senaste 12 månaderna använt någon av följande utrustning eller fisketekniker i syfte att underlätta att släppa tillbaka fisk?

	Ja	Nej
Hullinglös krok	<input type="checkbox"/>	<input type="checkbox"/>
Cirkelkrok	<input type="checkbox"/>	<input type="checkbox"/>
Specialanpassad rigg (t.ex. hair-rigg)	<input type="checkbox"/>	<input type="checkbox"/>
Knutlös håv	<input type="checkbox"/>	<input type="checkbox"/>
Vågsäck	<input type="checkbox"/>	<input type="checkbox"/>
Avkrokningsmatta	<input type="checkbox"/>	<input type="checkbox"/>
Minimera drillningstiden	<input type="checkbox"/>	<input type="checkbox"/>

Annan, vilken:

C6. Om ett fiskbestånd utsätts för överfiske på grund av sportfiske, vad anser du om följande förvaltningsåtgärder?

	Mycket negativ	Delvis negativ	Delvis positiv	Mycket positiv
Fiskeförbud till dess att fiskbeståndet återhämtat sig	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Begränsa antalet sportfiskare	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Införa högre minimimått på fisken	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Begränsa antalet fiskar som får tas upp	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tillåta fiske, men all fisk ska släppas tillbaka	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

C7. Vilken kunskap har du om hur man släpper tillbaka fisk på ett sätt som ger fisken goda utsikter till överlevnad?

- 1 Obefintlig
- 2 Dålig
- 3 Måttlig
- 4 God

C8. Önskar du mer information om hur man släpper tillbaka fisk på bästa sätt?

- Ja
 Nej
 Ingen åsikt

C9. Hur lämpligt anser du det vara att bedriva ett fiske efter följande arter med syfte att släppa tillbaka hela eller delar av fångsten?

	Aldrig lämpligt	Sällan lämpligt	Neutral	Ofta lämpligt	Alltid lämpligt
Strömming	<input type="checkbox"/>				
Makrill	<input type="checkbox"/>				
Havskatt	<input type="checkbox"/>				
Torsk	<input type="checkbox"/>				
Harr	<input type="checkbox"/>				
Gädda	<input type="checkbox"/>				
Karp	<input type="checkbox"/>				
Äl	<input type="checkbox"/>				
Lax	<input type="checkbox"/>				
Gös	<input type="checkbox"/>				
Abborre	<input type="checkbox"/>				
Regnbåge	<input type="checkbox"/>				

C10. Vem anser du ska få vara med och bestämma om man får släppa tillbaka fisk?

	Instämmer inte alls	Instämmer till liten del	Instämmer till stor del	Instämmer helt
Den enskilda sportfiskaren	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Den lokala fiskerättsägaren / fiskevårdsområdet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sveriges sportfiske- och fiskevårdsförbund	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kommunen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Länsstyrelsen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jordbruksverket	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Regeringen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Riksdagen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
EU	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I början av undersökningen bad vi dig ange din favoritmetod samt den fisk du helst fiskade efter med din favoritmetod (fråga A5 & A7). Det du svarade på dessa frågor kommer vi nu att kalla ditt "favoritfiske". Vi ber dig nu ha detta fiske i åtanke när du svarar på följande frågor:

D1. När du fiskar efter din favoritart, hur ofta fångar du fisk som är lovlig att ta upp?

- 1 Varje gång
- 2 Varannan gång
- 3 Var tredje gång
- 4 Mer sällan än var tredje gång

D2.- Ungefär hur stor andel av den lovliga fisken släpper du tillbaka vid ditt favoritfiske?

- 1 Jag släpper tillbaka alla fiskar
- 2 Ungefär 25%
- 3 Ungefär hälften
- 4 Ungefär 75%
- 5 Jag släpper inte tillbaka någon lovlig fisk

D3. Är du nöjd med de regler kring sportfiske som gäller vid ditt favoritvatten?

	Mycket missnöjd	Ganska missnöjd	Ganska nöjd	Mycket nöjd
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

D4. Hur orolig är du att fiskbestånden i det område där du bedriver ditt favoritfiske kommer att minska de närmaste tio åren?

	Väldigt orolig	Ganska orolig	Inte särskilt orolig	Inte alls orolig
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

D5. Hur skulle ett krav på att släppa tillbaka all fisk påverka hur mycket du fiskar?

- 1 Jag skulle sluta fiska helt
- 2 Jag skulle fiska mindre
- 3 Jag skulle fiska lika mycket
- 4 Jag skulle fiska mer

D6. Hur skulle ett förbud mot att släppa tillbaka lovlig fisk påverka hur mycket du fiskar?

- 1 Jag skulle sluta fiska helt
 2 Jag skulle fiska mindre
 3 Jag skulle fiska lika mycket
 4 Jag skulle fiska mer

D7. Hur tror du följande faktorer påverkar fiskbestånden i det område där du bedriver ditt favoritfiske?

	Mycket negativt	Delvis negativt	Ingen påverkan	Delvis positivt	Mycket positivt	Förekommer inte
Sportfiske	<input type="checkbox"/>					
Husbehovsfiske (nätfiske, mindre ryssjor, m.m.)	<input type="checkbox"/>					
Småskaligt (lokalt) yrkesfiske	<input type="checkbox"/>					
Storskaligt yrkesfiske (industrifiske)	<input type="checkbox"/>					
Vattenkraft	<input type="checkbox"/>					
Jordbruk	<input type="checkbox"/>					
Skogsbruk	<input type="checkbox"/>					
Främmande arter	<input type="checkbox"/>					
Klimatförändringar	<input type="checkbox"/>					
Att släppa tillbaka fångad fisk	<input type="checkbox"/>					

D8. Anta att du under en fisketur fångar många lovliga fiskar av din favoritart. Vad anser du om att släppa tillbaka följande andel av den fångade fisken?

	Är helt emot	Är delvis emot	Neutral	Stödjer delvis	Stödjer starkt
Inga fiskar släpps tillbaka	<input type="checkbox"/>				
25% av fisken släpps tillbaka	<input type="checkbox"/>				
Hälften av fisken släpps tillbaka	<input type="checkbox"/>				
75% av fisken släpps tillbaka	<input type="checkbox"/>				
All fisk släpps tillbaka	<input type="checkbox"/>				

D9. Hur tror du följande faktorer påverkar överlevnad hos tillbakasatt fisk vid ditt favoritfiske?

	Påverkar inte alls	Påverkar ganska lite	Påverkar ganska mycket	Påverkar vädigt mycket
Fångstdjupet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fisken blöder från gälar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Var kroken sitter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tiden fisken drillas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tiden fisken exponeras för luft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fiskarens erfarenhet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vattentemperaturen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fiskens grad av utmattning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

D10. Tycker du fiskerättsägare / fiskevårdsområden ska uppmuntra till att släppa tillbaka fisk som är lovlig enligt gällande fiskeregler?

- Ja
 Nej
 Vet inte

I det här avslutande stycket ber vi dig om lite bakgrundsinformation

E1. Hur ofta brukar ditt hushåll äta ...

	Aldrig	Någon gång/år	Minst 1 gång/månad	Minst 1 gång/vecka
Fisk (oberoende av ursprung)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fisk som någon i hushållet fångat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fisk från den lokala yrkesfiskaren eller fiskhandlaren	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bär som ni plockat själva	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Svamp som ni plockat själva	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kött från vilt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

E2. Var bodde du, respektive din far och din mor, större delen av era liv före 18 års ålder?

	Jag växte upp	Min far växte upp	Min mor växte upp
På landsbygden, eller ort med färre än 200 invånare	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ort med färre än 2000 invånare	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ort med 2000-10 000 invånare	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ort med 10001-180000 invånare	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stockholm, Göteborg, eller Malmö	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Annat land i Norden	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Annat land i Europa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Land utanför Europa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vet inte		<input type="checkbox"/>	<input type="checkbox"/>

E3. Var bor du idag?

- 1 På landsbygden, eller ort med färre än 200 invånare
- 2 Ort med färre än 2000 invånare
- 3 Ort med 2000-10 000 invånare
- 4 Ort med 10 001-180 000 invånare
- 5 Stockholm, Göteborg, eller Malmö

E4. Hur länge har du bott i den kommun där du bor nu?

- 0-5 år
- 6-10 år
- 11-15 år
- mer än 15 år

E5. Vilket är postnumret till din hemadress?

Skriv på raden:

E6. Är du medlem i någon av följande organisationer?

	Jag är medlem i
WWF – världsnaturfonden	<input type="checkbox"/>
Svenska jägareförbundet	<input type="checkbox"/>
SNF – Svenska naturskyddsforeningen	<input type="checkbox"/>
STF – Svenska turistforeningen	<input type="checkbox"/>
Djurens Rätt	<input type="checkbox"/>
Älvräddarna	<input type="checkbox"/>
Greenpeace	<input type="checkbox"/>
Lantbrukarnas Riksförbund	<input type="checkbox"/>
Sveriges Yrkesfiskares Riksförbund	<input type="checkbox"/>

E7. Vilken utbildning har du? Markera även eventuell pågående utbildning.

- 1 Obligatorisk skola (t. ex. grundskola, folkskola)
- 2 Yrkesutbildning (yrkesskola, fackskola, institut av olika slag)
- 3 Gymnasieutbildning (även realexamen, folkhögskola)
- 4 Universitet eller högskoleutbildning

E8. Är du kvinna eller man?

- Kvinna
 Man

E9. Vilket år är du född?

Jag är född 19.....

E10. Ungefär hur stor är ditt hushålls sammanlagda inkomst före skatt per månad?

- 1 Lägre än 15 000 kr per månad före skatt
- 2 15 - 30 000 kr
- 3 30 - 45 000 kr
- 4 45 - 60 000 kr
- 5 60 - 75 000 kr
- 6 mer än 75 000 kr per månad före skatt

E11. Jobbar du inom sportfiskerelaterad verksamhet?

- Ja
- Nej

ETT VARMT TACK FÖR DIN MEDVERKAN! Vi är medvetna om att det har tagit tid för Dig att svara på våra frågor. Du har kanske också tyckt att några av dem har varit besvärliga att svara på. Har du några kommentarer eller synpunkter på det vi frågat om får du gärna ge oss dom på raderna nedan.

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