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ATTITUDES TO WILD LIFE

An interdisciplinary attempt to improve code of conducts for wild life watching

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INTRODUCTION

Background

Growing interest for wild life experiences

The interest for wildlife tourism has grown rapidly during the last couple of years and is now one of the fastest growing sectors in the tourism industry. Due to this development, wildlife tourism is being developed in new remote locations and around new animal species. Further, the better access to the peripheries of the North Atlantic, due to expected climate change impact, is likely



to speed up this development. As an example, seal watching sites are being developed in several places in Iceland at the moment (ref).

Wildlife tourism is often considered to be a minimum of impact activity on nature. Discussions among tourism researchers have focused on how to plan for sustainable use of nature and wildlife (Hull 2001), how to meet ordinary people's need for access to nature and wildlife in accordance with preservation needs (Nilsson 2002), how this access to nature and wildlife is an inherent component of a vital democracy (Arler 2002), how to model plans for maintaining an accessible nature (Bosetti et al. 2009), and how to construct guides for behaviour of people in a nature environment where use and protection can meet each other needs (Grant 2000; Hughey et al. 2004; Viglundsdóttir et al 2011).

However, the growing interest for watching animals in their natural environment intersects with the awareness of the potential of humans to disturb wild animals. It is well documented that human disturbance may affect the wellbeing and fitness of wild animals. Briassoulis (2002) claims that claim, on sustainable ground, for wise management of natural or constructed resources for tourist use may result in use by local residents as well, which in turn result in overused and degraded resources, severely threatening sustainable development. Whoeler *et al.* (1994) find that this overuse together with a growing interest for animal watching may in some cases reduce reproduction success, as well as lead to changes in distribution of animals. Johnson and Lavigne (1999) identified tourism as among the most significant causes of the decline affecting monk seals in the Mediterranean. Sea Cassini (2001) finds in a study of fur seals in South America that distance between watchers and seals had importance. A closer distance than 10 m between tourists and seals caused a strong response among the animals. Crabtree (2008) have conducted monitoring studies of harbour seals in California with focus on changes in population, reproduction system and condition of the seals. Damage on the seals in 47 % of the cases was found to be due to humans.

The understanding that tourism may negatively affect the well being of wild animals has in many places led to a development of codes of conducts on how to behave around wild animals. Often such codes are found to reduce the effect of humans on wild animals. Garrod & Fennell (2004) made, however, an investigation of existing codes of conduct concerning whale watching and found that these had little relevance for whale watching, instead they revealed how little is currently known among tourists about the nature of human-whale interactions. It is therefore clear that a deeper understanding in these interactions is needed. Today, not only scientists, but



also the tourism industry is getting more aware of the need to develop tourism experiences in a sustainable way.

Wild life and the environment

There is no totally concordance between disciplines on how to approach this problem, especially not between tourism researchers and biologists. Wildlife biologists often put focus on how to minimize the potential effect on the animals, by for example establishing sanctuaries for the animals or developing strict recommendations and codes of conducts with guidelines on how tourists and entrepreneur companies should behave in the presence of wildlife (Granquist & Nilsson 2010). Often, such codes of conducts are built entirely on results from biological studies on proved negative impact on the ecology and behaviour of wild animals. The codes are often ontological and ban the wrong behaviour without explaining why, something teleological codes do (Mason 1997). Use of ontological codes may lead to confusion among tourists since they do not always understand why they must act restrictively. The disneyfication has made many people believe that animals respond to stimuli in the same way humans do (Sigvaldadottir 2010).

Wild life and tourists

From the tourism research side the focus is often put on economic revenue from visits to wild life assets. Bosetti et al. (2009) show how economy and sustainability can function together. Arler (2003) stresses the right of access for “ordinary people” to intersect with nature. Hull (2001) discusses the opening up of the Labrador region for a world-wide adventure travel destination and the governmental policy behind it. Nilsson (2002) shows that a mentally open landscape in Denmark in reality is very closed since it is used for agriculture reasons and by that only can be enjoyed optically. Sandell & Fredman (2010) discuss different scenarios for the right of public access in Scandinavia in the future since there are different actors wanting to diminish the general access or to benefit from it.

Interdisciplinary approach to human intersection with wild life

In the past, interdisciplinary studies regarding human interactions with wildlife have been scarce, even though the awareness of the need of such studies has grown recently. Hughes (2002) shows how environmental indicators fail to evaluate ecological impact of tourism. Orams (2002) describes how feeding wild animals as a tourist attraction cause damage among the animals. Hall et al. (2003) find that interaction between humans and wild animals may under certain circumstances contribute to the welfare of the animals. Hughey (2004) asks for an integrated framework providing indicators and classification systems for monitoring management progress within wild life tourism industry. Bertella (2011) finds in her case study in Northern Norway that



the main challenges for an active and practical adoption of results from nature science research is lack of dedicated and competent entrepreneurs but also poor networking, especially locally.

Conflicts

These conclusions are mainly based on the assumption that there is a right for common people to take part of nature experiences as well as of culture heritage experiences (Nilsson 2009). This right to enjoy nature is based on the need of a balance, established between use and protection. If these goals jeopardize this balance, one of the actors must be superior to the other (Sandell 1995).

Conflicts between use and protection can be seen from the two involved sides, tourism use and environmental protection, like this:

Table 1. Conflict matrix: use and protection of nature

Use as a tourism concern	Protection as an environmental concern
The situation for tourism entrepreneurs	Maintenance of environmental sustainability
Benefit from influx of foreign currency	Leakage of money to users, not protectors
Benefit from better basis for service	Seasonality with periodical congestions
Exposing of nature amenities	Exploitation of nature amenities
General access to nature	Land-owner resistance to general access
Rural calm as an asset for urbanites	Loss of rural calm for residents

Codes of conduct

Use of tourism codes of conduct as a method to create balance between use and protection is a relatively recent phenomenon, although there are examples, such as the English Countryside Commission's Country Code, dating back to the 1960s (Mason 2003). It is perhaps not surprising that these codes first began to emerge at a time when mass tourism was growing in the late 1960s and early 1970s. The supposed benefits of tourism at the middle of the century became questioned and a more critical perspective on its impact emerged in the 1970s (Turner & Ash 1975; de Kadt 1979; Jafari 1981; Fennel 2007).

The codes, as a link between tourism industry needs and ecologic claims for protection, contain a number of key values like justice, integrity, competence and utility. The aim was to make tourism industry aware of the fact that it is based on a limited resource, and that sustainable economic development requires certain limits of growth (Fennell 2007).



Codes of conduct have been used as a soft visitor management tool also for education of tourists with the aim to influence their behaviour in a certain sustainable direction (Cole 2006). Such codes have been developed by governments, the private sector and NGOs since the late 1980s in order to influence attitudes and modify behaviour (Mason 1997).

Entrepreneurs or tourists as targets

It is understood that the codes imply two different target groups, the entrepreneurs and the tourists, with their two different body languages, the animal language and the visitor language. Interpretation of the two languages is needed for establishing a link between the two target groups (Granquist & Nilsson 2010). If this interpretation is appropriate, it has the potential to enhance substantially both to the visitor experience and the dignity of the animal (Hall *et al.* 2003). A successful value-added experience of human-animal interaction, beneficial for the animals welfare, must contain communication strategies "...that create links between visitor and species and enable the visitor to establish personally meaningful connections within the interpretive experience" (p97).

A number of discrete target groups for tourism codes of conduct were identified in the United Nations Environment Program, mostly directed to tourists, not the tourism industry by sheer number (1995). World Travel and Tourism Council (1997) listed almost 80 visitor codes in use around the world in 1994, and in the first decade of the XXIst century, this has risen to several hundreds. Despite the big number of codes, there is no general code with world-wide recognition or penetration (Garrod & Fennell 2004).

Objective

The aim of this report is to contribute to develop methods for contribution to the use of code of conduct for stakeholders within tourism by revealing attitudes among tourists concerning proper behaviour when watching wild animals.

Method

The study is a tourism research part of an interdisciplinary study within development of a tourism and biology methodology. During 2010, a study was conducted which investigated tourist impact on the haul-out behaviour and abundance of the common seal (*phoca vitulina*). The tourists were asked about their attitudes to wild life, seal watching and how they experienced seal watching. The seal behaviour was studied through observations of abundance and vigilancy (Cacho et al 2010; Granquist & Nilsson 2010).



The questionnaire

The 14 questions were set up as statements according to a reverse Likert scale with a rating from 1-5 of whether they agreed with them or not with 1 with the strongest and 5 with the least agreeing with the statement. The questions should mirror two different methodological topics. One topic is about teleological *deontological* statements without arguments for what consequences “wrong” behaviour would cause. The other topic is about *teleological* statements with reasons and goals behind the codes and the consequences of “wrong” behaviour.

Questions 1-11 deal with ethical attitudes behaviour of the tourists (the deontological code) and contained two different sets of questions. Questions 1-4 display positive attitudes towards following the rules and questions 5-11 display negative attitudes towards following the rules. Questions 12-14 had statements with background in reasons behind and consequences of behaviour.

The questions were also chosen to fit in with the four attitude concepts connected to the concepts of utilitm, humanism, mysticism, and bio-centrism. Questions 2,9,10 displayed a *utilistic* attitude, questions 1,5,6,7,11 displayed a *humanistic* attitude, questions 12,13 displayed a *mystic* attitude and the questions 3,4,8,14 displayed a *biocentric* attitude. The four attitudes are developed in the following matix:

Table 2. Four attitudes to wilderness areas

	<i>Objective</i>	<i>Justification</i>	<i>Wilderness image</i>
<i>Utilism</i>	High standards of social and human wellbeing by increasing production	Unrestricted right to exploit wilderness areas to promote his well-being and production	A source of raw materials and fuel
<i>Humanism</i>	Human perfection and mental balance	Unrestricted right of man to exploit wilderness areas to promote his perfection	A valuable opportunity that people should develop through their own actions
<i>Mysticism</i>	Unity of man and nature	Highest value of human life is to aim at the sacred state embodied in un-spoilt nature	Basically a large spiritual entity
<i>Biocentrism</i>	Self-guarding inherent value and functions of wilderness areas	All species are equally valuable – man has no special position	A total ecological system with an inherent value of its own

As an attachment to the statements, there was a question about satisfaction of the experience during the seal watching. Finally, they were ask to tell about age, gender, education, occupation, home-place and income. This information, together with the responses to the statements, give a



possibility to roughly characterise the visitors to psychocentric or allocentric tourist types (Plogh 1994). According to assumptions based on climate change impact, allocentric tourists will probably be replaced to more or less extent by psychocentric ones. A concentrated definitions can be seen in table 1.

Table 3. Psychocentric and allocentric tourists (Source Plogh)

<i>Psychocentric</i>	<i>Allocentrics</i>
Intellectually restricted	Intellectually curious
Low risk-taking	Moderate risk-taking
Withhold income	Use disposable income
Free-floating anxiety	Relatively anxiety free
Non-active	Interested/involved
Prefer sun 'n' fun spots	Prefer novel and different destinations
Wants standard accommodation	Seek off-the-beaten-paths
Buys souvenirs	Buys native arts/crafts
Enjoy crowds	Prefers small numbers of people

The site

The interviews took place at two seal watching locations, Illugastaðir and Svalbarð, at the peninsula of Vatnsnes, Northern Iceland.



Figure 1: The seal watching site at Illugastaðir.

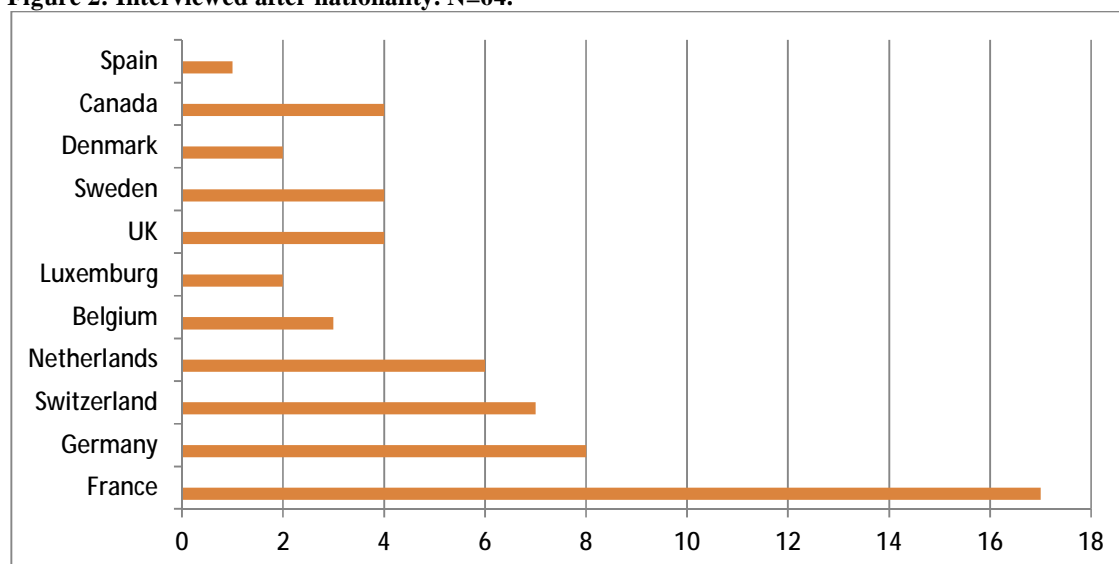


THE INTERVIEWED

Nationality

There were 65 interviews. France dominated as country of origin with 27 %, followed by Germany, Switzerland and Netherlands with around 12 % each.

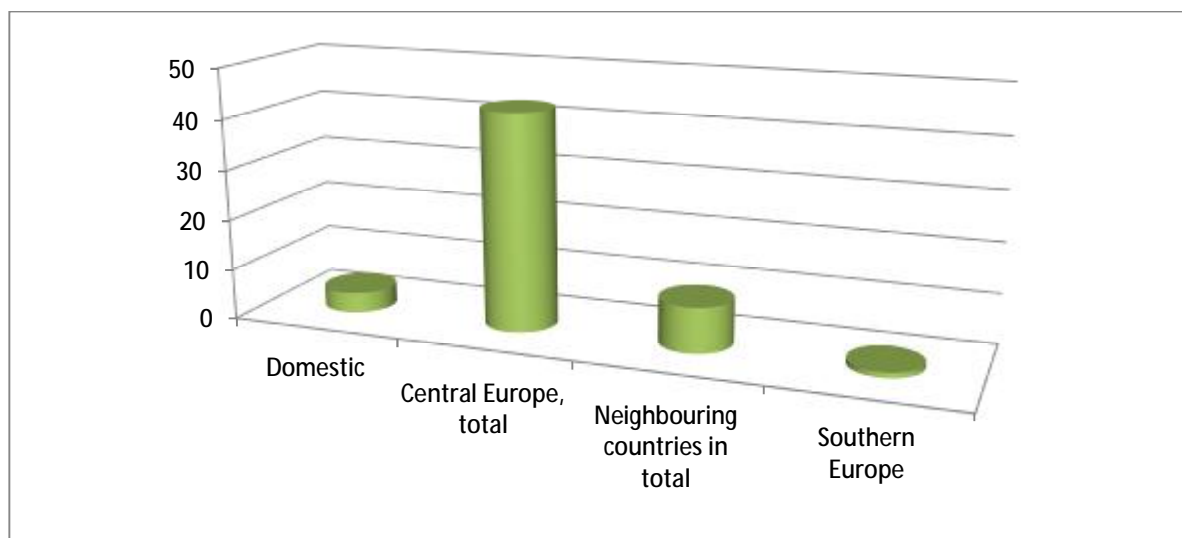
Figure 2: Interviewed after nationality. N=64.



Striking is the dominance of central Europeans with 72 % and the lack of dominance of the neighbouring countries (Scandinavia, UK and Canada) with only 15 %. Southern Europe is almost absent.

Figure 3: Interviewed after group of nationality. N=64.





The findings confirm the findings from a visitor survey at the Seal museum at Hvammstangi, 40 km away from the seal watching site (Nilsson & Sigvaldsdóttir 2011). This stands in sharp contrast to the figures for Iceland as a whole, which show that half of tourists to Iceland come from neighbour countries like Scandinavia, UK and North America. This is the case both with arrivals at Keflavik by air and Seidisfjörður by ferry.

The tourists at the seal watching site came by car, mostly rented in Reykjavik but some of their own, brought with the ferry to Seidisfjörður.

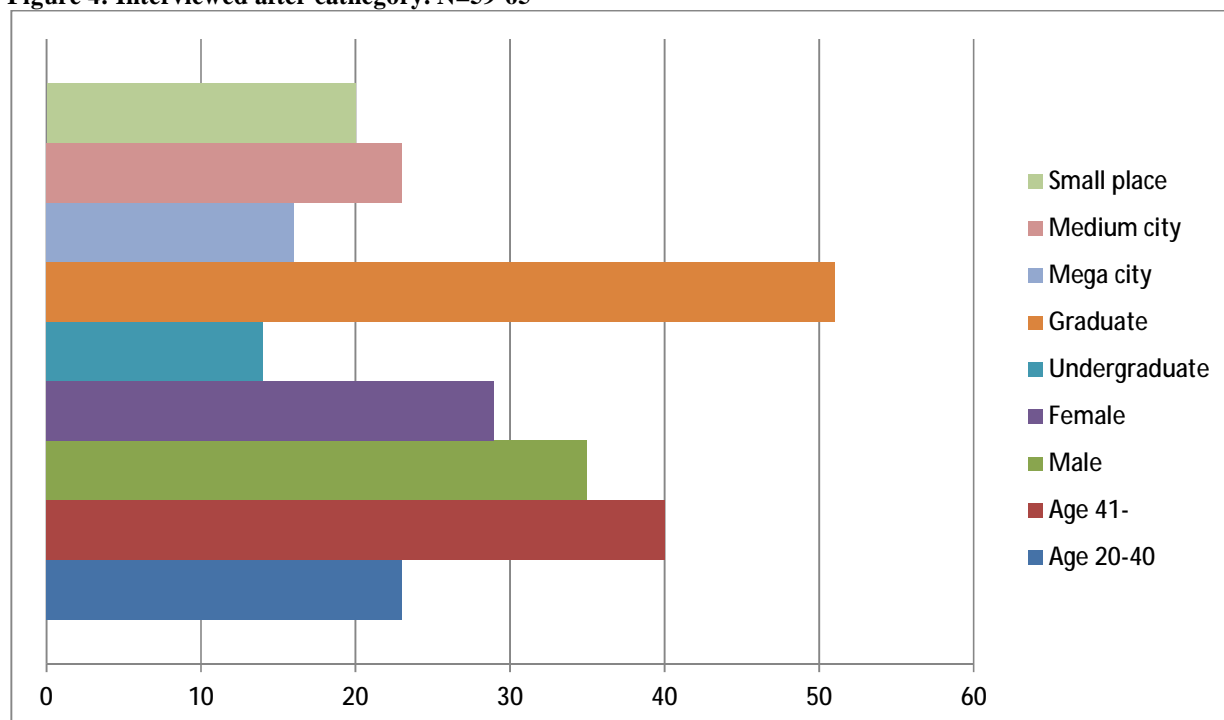
That ferry (Smyril Line) with base in the Faroe Islands sails between Denmark, Faroe Islands and Iceland weekly but with passenger traffic to Iceland only during April to October. It counts for about 25 000 tourists a year or between 10 to 15 % of the total number of inbound tourists to Iceland.

Categories

The 65 interviewed were categorised after age, gender, education, occupation and place of residence. Some of the interviewed did not mark a category.



Figure 4: Interviewed after category. N=59-65



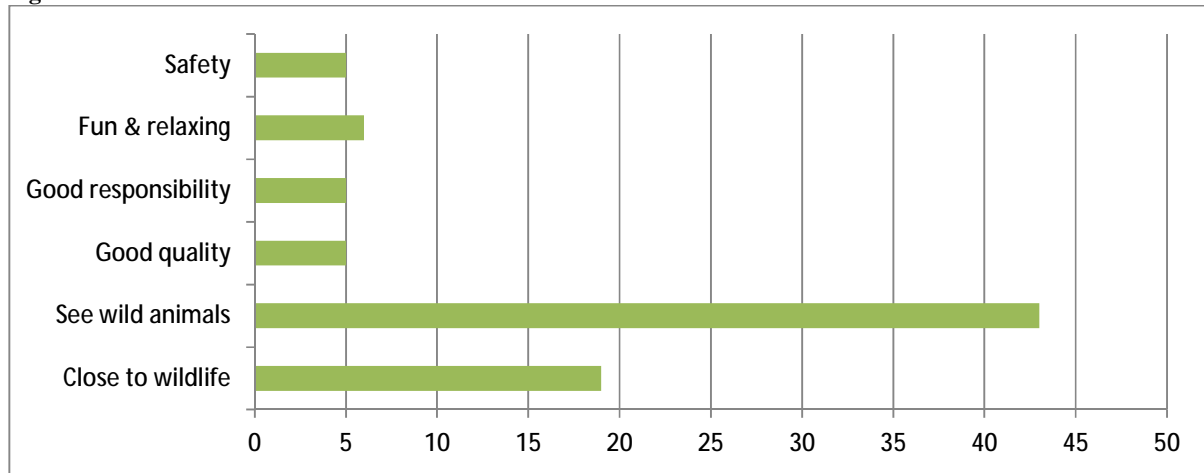
The average visitor was over 40 years, male, graduate and from a city with between 100 000 to 500 000 inhabitants. The most striking internal difference within categories was between visitors over and under 40 years and between graduate and undergraduate (see figures 8, 9 and 12, 13).

Satisfaction with the visit

Half of the tourists at the seal watching site were satisfied with the experience and they appreciated highly the possibility to get close to the animals.



Figure 5: Interviewed after satisfaction. N=83.



III

RESULTS

Average frequency of attitudes towards positive attitudes.

The average frequency of the attitudes to the statements 1 to 4 according to the reversed Likert scale was 2,4.

Table 3: Average frequency in for questions 1 to 4.

1	2	3	4
1,7	2,7	2,6	2,6

The statement about educations as the best way manage people's behaviour in a wildlife area was highly accepted by most of the respondents. Only 3 doubted it while 4 were ambiguous or indifferent.

The questions about need for guides or guided tours (statement 3 and 4) were accepted but only 18 % did it strongly while 25 % disagreed and 27 % were ambiguous or indifferent. The question if the respondent had been well informed about protection regulations was the most ambiguous statement. The tradition for using guides is more frequent in North America and that may be a background to the ambiguousness among the respondent. Another explanation may be lack of knowledge about the roles of guides.

The statement that the respondent was well informed about regulations for protection of wild areas was accepted by the least number of respondents. Just half of the respondents, 52 %, felt they were well informed, and 22 % were not sure if they were well informed or not. With this ambiguousness, it is probably due to lack of proper information.

Average frequency of attitudes towards negative attitudes.

The average frequency of the attitudes to the statements 5 to 11 according to the reversed Likert scale was 3,2. Strongly rejected were statements 9, 10 and 11 while statement 8 was accepted.

Table 4: Average frequency in for questions 5 to 11.

5	6	7	8	9	10	11
2,8	2,7	3,3	2,1	3,8	4,7	3,6

The statement that the respondent was well informed about regulations for protection of wild areas was accepted by the least number of respondents. On the other hand, most of the respondents, 29 %, meant that other people had no idea how to behave in a wild life area. However, almost the same number of respondents, 31 %, did not know whether other people were ignorant or not. There is obviously some confusion about proper knowledge of wild life behaviour.



That does not keep people from having strong opinions about statements saying that nature is more important than human needs. Only 9 % think that humans have right to alter nature to satisfy their wants and desires, and of them, only two persons strongly reject that statement and only person is ambiguous or indifferent. The statement that maintaining economic growth is important and should not be held back further regulations is more acceptable even if 49 % rejects it. The number of ambiguous or indifferent is, however, high: 38 %.

The third statement with strong was if there are too many rules and regulations in the wild life areas and 60 % rejected that statement but even here, the ambuiuousness is highr: 33 %. It can be compared to the statement saying that too many enforcement officers could be intimidating where less than the half, 46 %, rejected the statement but only 11 % were strongly in favour of it and the ambuiuousness rate was even lower.

The statement that animals can be used to people and thereby not be distrubed by a close presence of the visitors is met with a high degree of uncertainty: 37 % say they do not know. Only 22 % a sure and of them only one person rejects it strongly. The statement is not anchored in social consciousness.

Average frequency of attitudes towards questions 12 to 14.

The average frequency of the attitudes to the statements 12 – 14 was according to the reversed Likert scale 2,1 which reveals a strong acceptance to the statements.

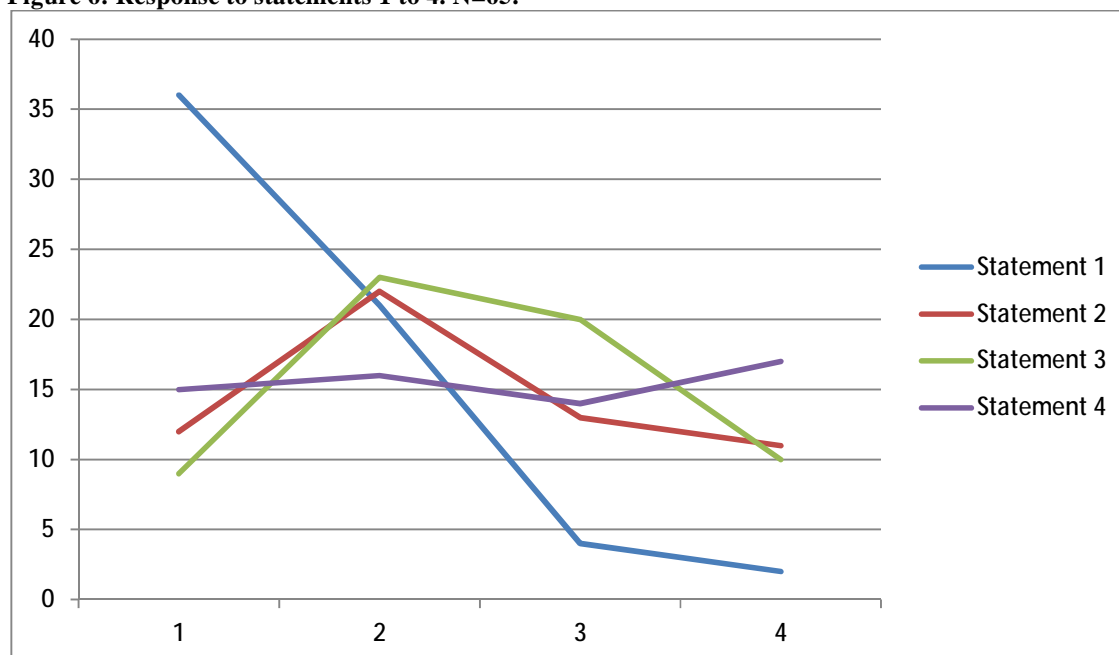
12	13	14
1,9	2,3	2,4

Most accepted was statement 12 saying that humans should adapt to nature rather than modifying it to suit their needs. Only 5 % rejected and no one rejected it strongly. 23 % were ambiguous or indifferent while 38 % strongly accepted it.

The statement that satisfaction and quality of life is more important than wealth and material considerations was met with little more hesitation, 32 % strongly accepted it while 25 % was ambiguous. Statement 14, which said that those who disturb wildlife should be fined, created a spread result with 23 % against it while 25 % strongly accepted it.



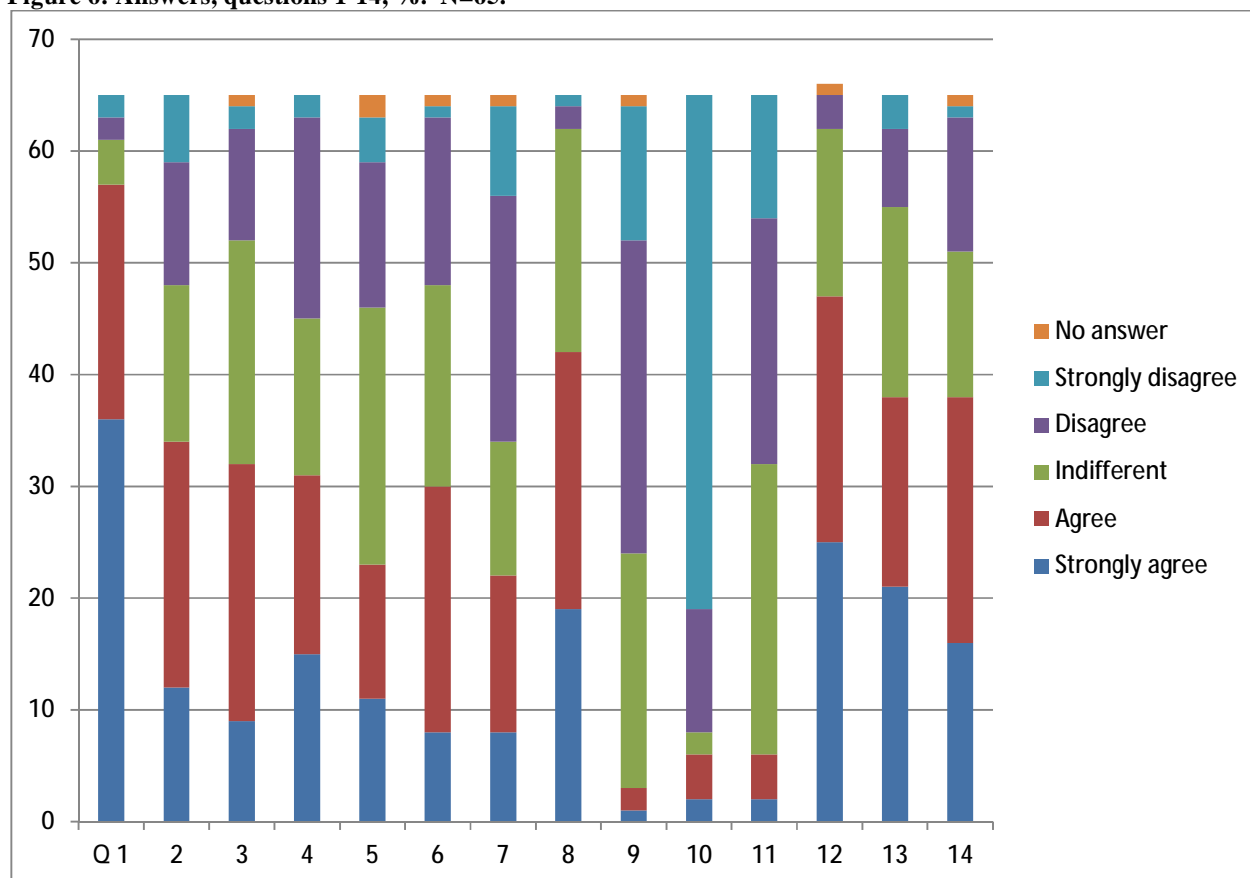
Figure 6: Response to statements 1 to 4. N=65.



The questions were also chosen to fit in with the four attitude concepts connected to the concepts of utilitsm, humanism, mysticism, and bio-centrism. Questions 2,9,10 displayed a *utilistic* attitude, questions 1,5,6,7,11 displayed a *humanistic* attitude, questions 12,13 displayed a *mystic* attitude and the questions 3,4,8,14 displayed a *biocentric* attitude



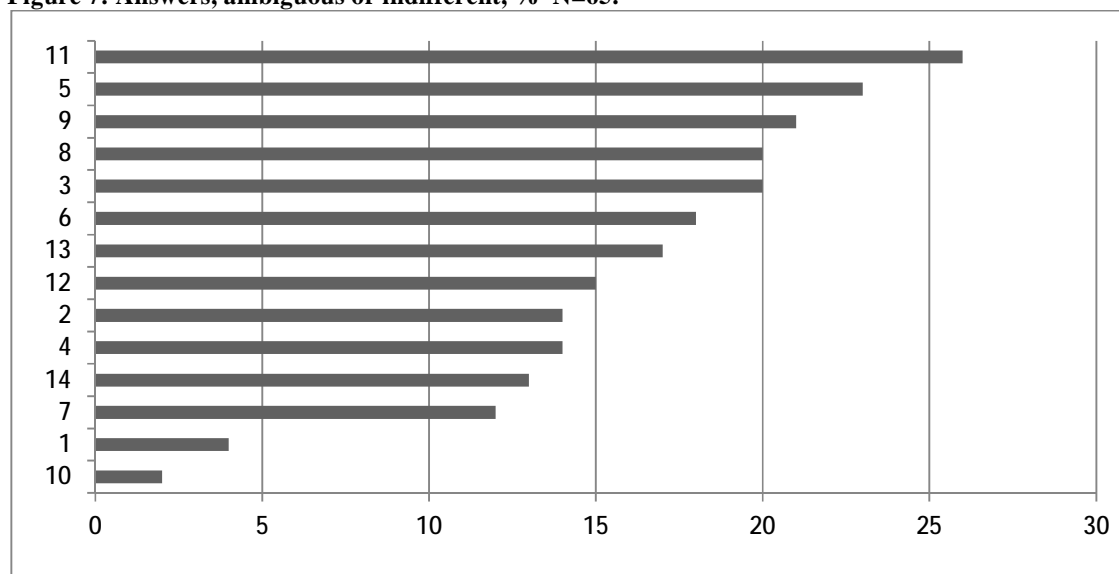
Figure 6: Answers, questions 1-14, %. N=65.



The respondents were ambiguous or indifferent concerning the statements, no. 6, that *I know how to recreate responsibly in a wildlife area without requiring additional information from any other source* (2,8) and no. 7 that *Having enforcement officers present in recreational areas could be intimidating and put people off visiting* (3,1).



Figure 7: Answers, ambiguous or indifferent, % N=65.



Answers related to categories

Age 20 to 40.

The interviewed between the age of 20 to 40 had the highest frequencies for questions 4, 7 and 9.

That means that they agreed upon the statement:

Encouraging people to go on guided tours would reduce incidents of wildlife disturbance

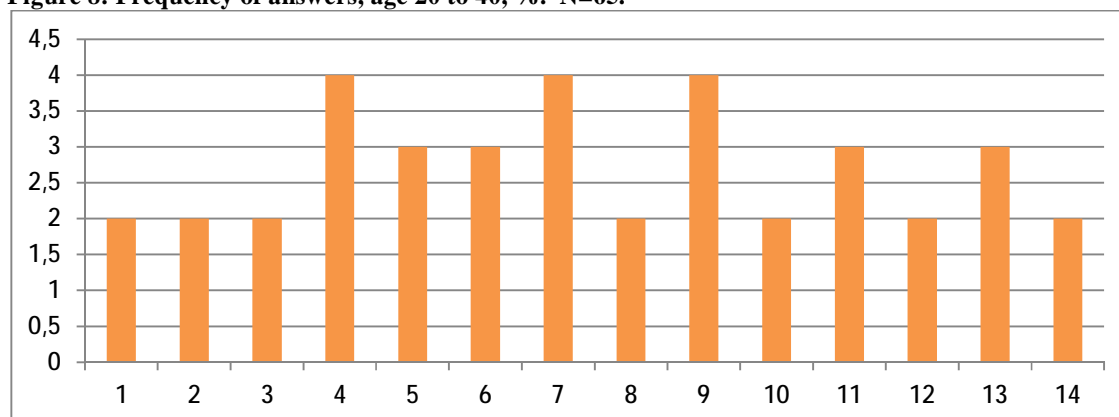
It also means they disagreed upon the statements:

Having enforcement officers present in recreational areas could be intimidating and put people off visiting

There are already too many rules and regulations regarding recreational activities in a wildlife area



Figure 8: Frequency of answers, age 20 to 40, %. N=65.



Age 40 and more.

The interviewed between the age of 40 and more had the highest frequencies for questions 10, and 9. The lowest frequency had questions 1, 12, 13, 14.

That means that they strongly disagreed upon the statement:

Humans have the right to alter nature to satisfy wants and desires (No 10)

They disagreed upon the statement:

There are already too many rules and regulations regarding recreational activities in a wildlife area (9)

They strongly agreed upon the statements:

Education is the most appropriate way to manage the behaviour of people taking part in activities in a wildlife area. (1)

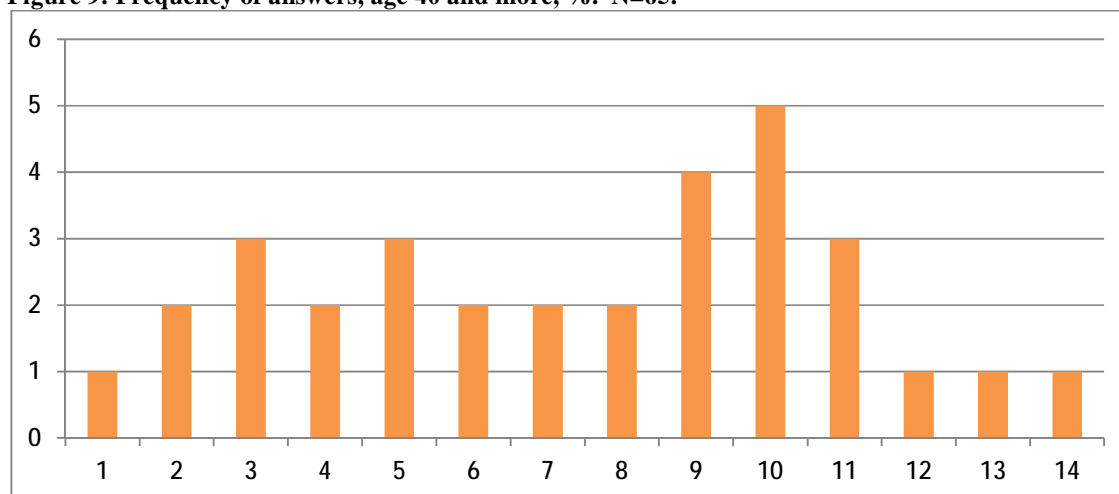
Humans should adapt to nature rather than modifying it to suit our needs (12)

Satisfaction and quality of life are more important than wealth and material considerations (13)

People who disturb wildlife are committing a serious crime and should be fined (14)



Figure 9: Frequency of answers, age 40 and more, %. N=65.



Male

The male interviewed had the highest frequency for question 10. The lowest frequency had question 1.

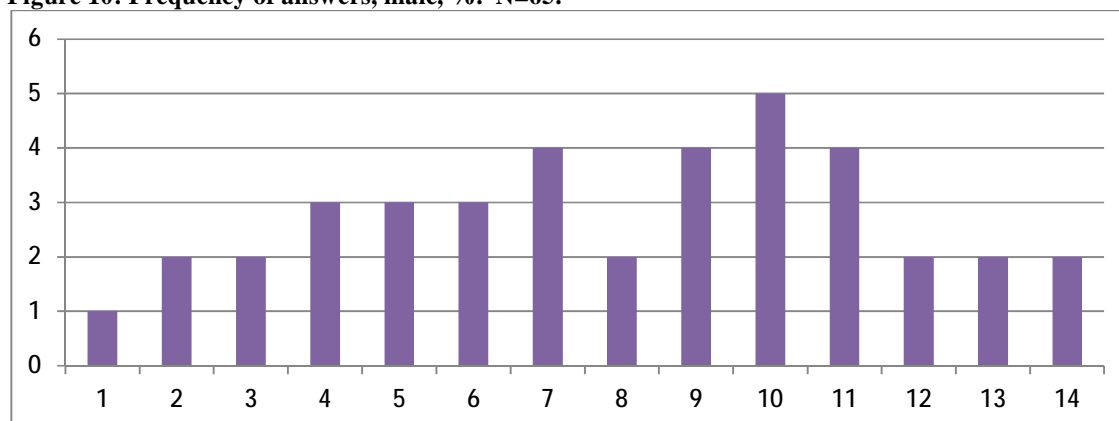
That means that they strongly disagreed upon the statement:

Humans have the right to alter nature to satisfy wants and desires (10)

They strongly agreed upon the statements:

Education is the most appropriate way to manage the behaviour of people taking part in activities in a wildlife area (1)

Figure 10: Frequency of answers, male, %. N=65.



Female

The female interviewed had the highest frequency for question 10. The lowest frequency had questions 12,13 and 14.

That means that they strongly disagreed upon the statement:

Humans have the right to alter nature to satisfy wants and desires (10)

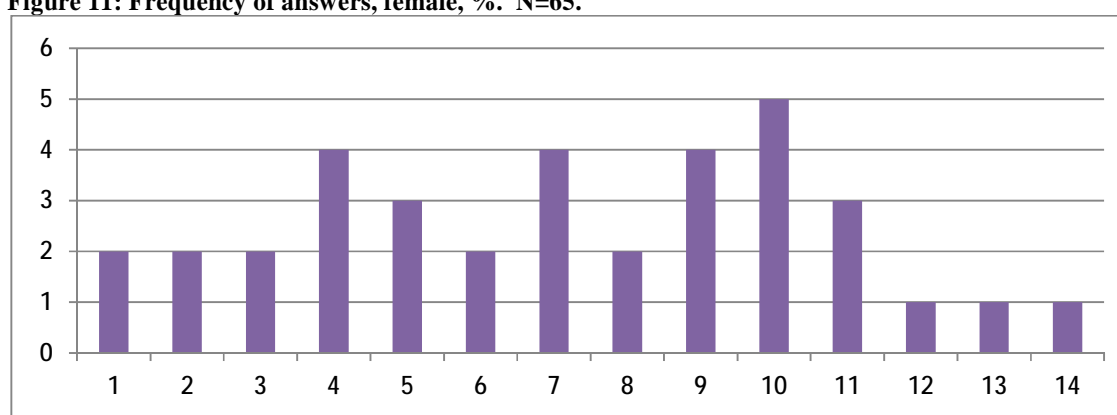
They agreed upon the statements:

Humans should adapt to nature rather than modifying it to suit our needs (12)

Satisfaction and quality of life are more important than wealth and material considerations (13)

People who disturb wildlife are committing a serious crime and should be fined (14)

Figure 11: Frequency of answers, female, %. N=65.



Undergraduate

The interviewed with undergraduate degree of education had the highest frequency for question 10. The lowest frequency had questions 1 and 13.

That means that they strongly disagreed upon the statement:

Humans have the right to alter nature to satisfy wants and desires (10)

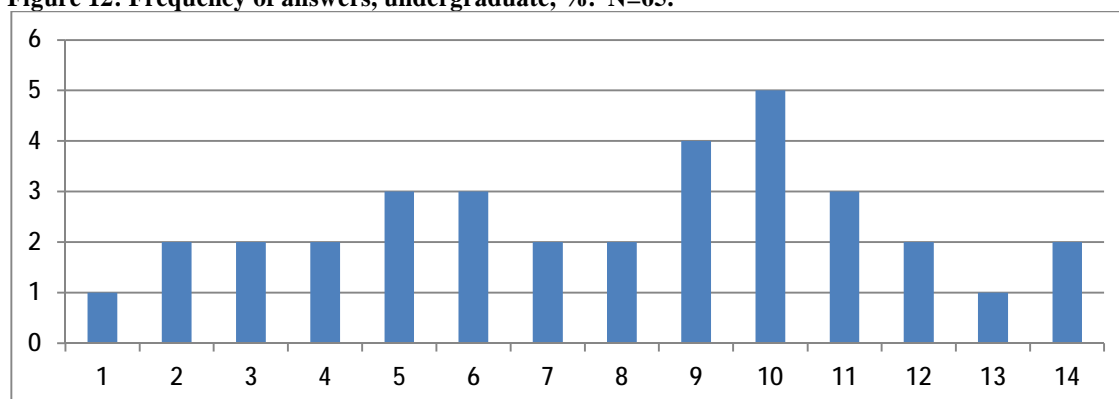
They strongly agreed upon the statements:

Education is the most appropriate way to manage the behaviour of people taking part in activities in a wildlife area (1)

Satisfaction and quality of life are more important than wealth and material considerations (13)



Figure 12: Frequency of answers, undergraduate, %, N=65.



Graduate

The interviewed with graduate degree of education had the highest frequency for question 10. The lowest frequency had questions 1, 12 and 13.

That means that they strongly disagreed upon the statement:

Humans have the right to alter nature to satisfy wants and desires (10)

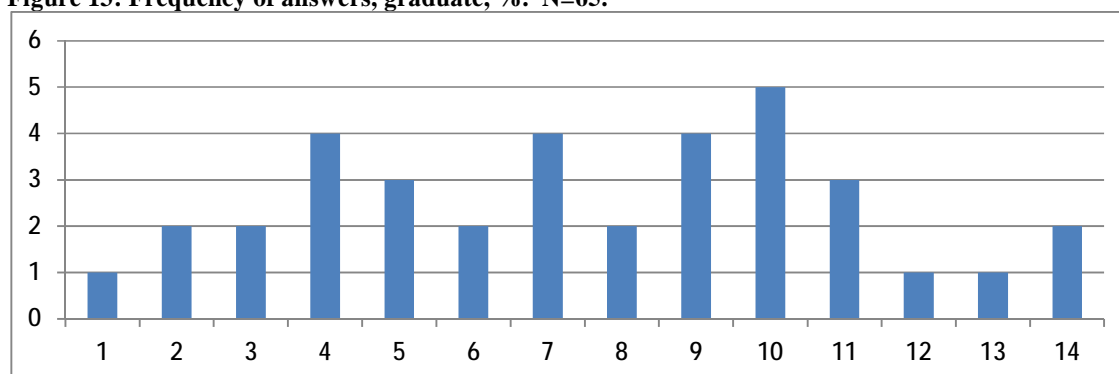
They strongly agreed upon the statements:

Education is the most appropriate way to manage the behaviour of people taking part in activities in a wildlife area (1)

Humans should adapt to nature rather than modifying it to suit our needs (12)

Satisfaction and quality of life are more important than wealth and material considerations (13)

Figure 13: Frequency of answers, graduate, %, N=65.



Mega cities

The interviewed from cities with more than 500 000 inhabitants had the highest frequency for



question 10. The lowest frequency had question 1.

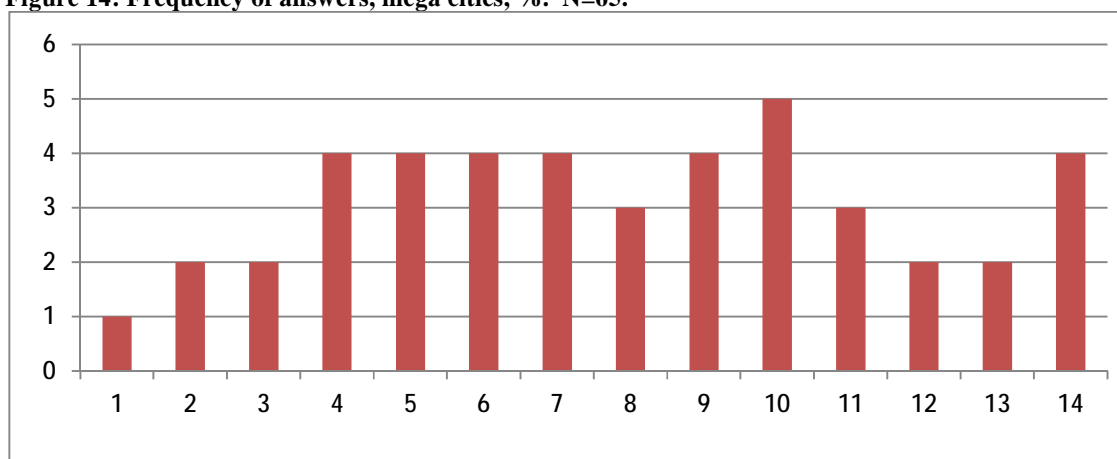
That means that they strongly disagreed upon the statement:

Humans have the right to alter nature to satisfy wants and desires (10)

They strongly agreed upon the statements:

Education is the most appropriate way to manage the behaviour of people taking part in activities in a wildlife area (1)

Figure 14: Frequency of answers, mega cities, %. N=65.



Middle cities

The interviewed from cities with between 100 000 and 500 000 inhabitants had the highest frequency for questions 9,10 and 11. The lowest frequency had questions 1,8,12 and 14.

That means that they strongly disagreed upon the statement:

There are already too many rules and regulations regarding recreational activities in a wildlife area (9)

Humans have the right to alter nature to satisfy wants and desires (10)

Maintaining economic growth in a wildlife area is important and should not be held back by further regulating activities (11)

They strongly agreed upon the statements:

Education is the most appropriate way to manage the behaviour of people taking part in activities in a wildlife area (1)

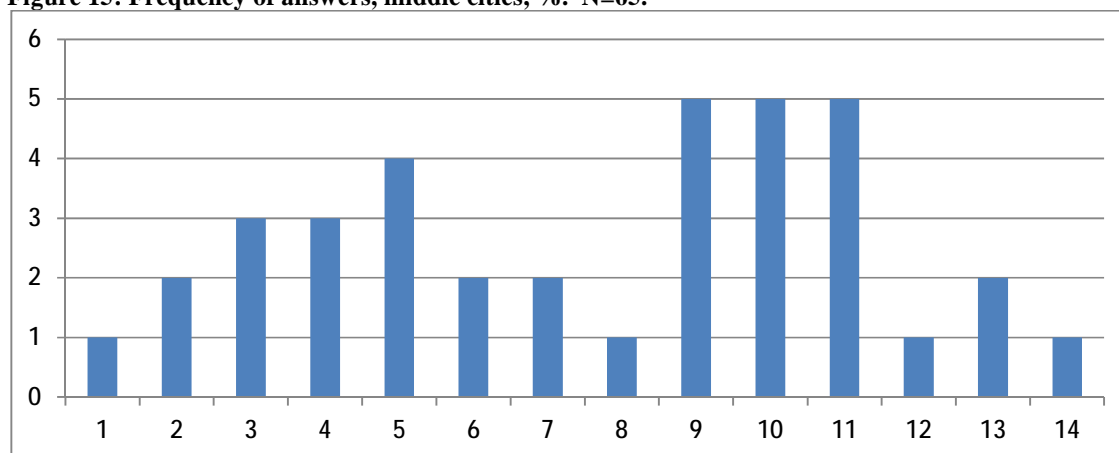
Many people who visit a wildlife area have no idea how to behave around wild animals (8)

Humans should adapt to nature rather than modifying it to suit our needs (12)

People who disturb wildlife are committing a serious crime and should be fined (14)



Figure 15: Frequency of answers, middle cities, %. N=65.



Small cities

The interviewed from cities with less than 100 000 inhabitants had the highest frequency for question 10. The lowest frequency had questions 1,4 and 13.

That means that they strongly disagreed upon the statement:

Humans have the right to alter nature to satisfy wants and desires (10)

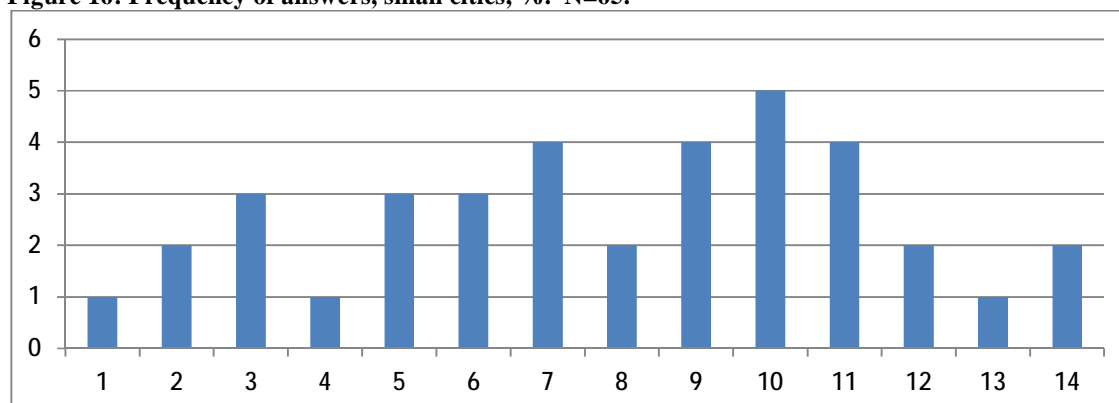
They strongly agreed upon the statements:

Education is the most appropriate way to manage the behaviour of people taking part in activities in a wildlife area (1)

Encouraging people to go on guided tours would reduce incidents of wildlife disturbance (4)

Satisfaction and quality of life are more important than wealth and material considerations (13)

Figure 16: Frequency of answers, small cities, %. N=65.



ANALYSIS

The disagreement about statement 10, *humans have the right to alter nature to satisfy their wants and desires*, is shared by all categories except for those under 40 years. That category also rejects statement 1, *education is the most appropriate way to manage the behaviour of people taking part in recreational activities in a wildlife area*, which also the women do.

The two statements at the end of the questionnaire, 12 and 13, expose politically (mostly) unquestioned statements and they are shared by nearly half of the categories. Those who do not agree are people under 40 years, men, undergraduates and people from megacities.

Categories with cities between 500 000 and 1 million inhabitants plus those below 40 years have the most coherent opinion, profoundly sharing views on 6 of the 9 statements. The most split categories are men and people from mega towns.

Table 4. Answer frequencies ranked highest after category. N=65.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Tot
20-40				X			X		X						3
Below 40	X								X	X		X	X	X	6
Male										X					2
Female										X		X	X	X	4
Undergrad	X									X			X		3
Graduate										X		X		X	4
Mega city	X									X					2
Mid city	X						X	X	X	X	X	x			6
Small city	x			x						X			X		4
Total	5	0	0	2	0	0	2	1	3	8	1	4	4	3	

To sum up:

- There is profound unanimity that humans have no right to alter nature for own benefits. Only people below 40 years think that this not totally wrong.
- Most of the categories agree with the lifestyle statements about the priority quality of life and adaption to nature before material considerations. The rather sharp statement that people abusing nature should be fined is accepted by three categories (below 40 years, women, and people from mega cities).
- The rest of the statements give a split picture of the categories

In order to have an impact on peoples' attitudes, which is the inherent intension of the codes of conduct, some conclusions can be drawn:



- People below 40 years of age have a more liberal attitude to human impact on nature
- Men do not share life style views, like that satisfaction of life is more important than material considerations or that humans should adapt to nature.

Statements after frequency of clear answers:

Clear opinions:

- (10) *Humans have the right to alter nature to satisfy their wants and desires* . **4,45**
 (1) *Education is the most appropriate way to manage the behaviour of people taking part in recreational activities in a wildlife area* **1,7**
 (12) *Humans should adapt to nature rather than modifying it to suit their needs* **1,9**

Rather clear opinions:

- (8) *Many people who visit a wildlife area have no idea how to behave around wild animals* **2,1**
 (14) *People who disturb wildlife are committing a serious crime and should be fined* **2,4**
 (13) *Satisfaction and quality of life is more important than wealth and material considerations* **2,4**

Unclear opinions:

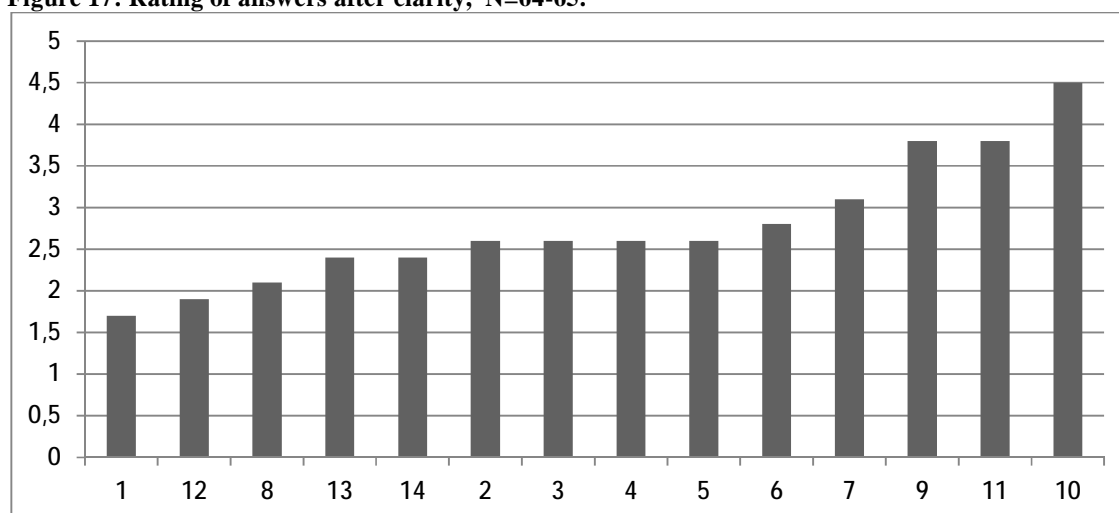
- (2) *I have been well informed about the regulations that protect wildlife from human disturbance in a wildlife area* **2,6**
 (4) *Encouraging people to go on guided tours would reduce incidents of wildlife disturbance* **2,6**
 (3) *There should be more guides present to educate people taking part in recreational activities in a wildlife area* **2,6**
 (5) *Some animals in a wildlife area are used to people so it should be allowed to get closer for a better view or to take pictures* **2,6**
 (6) *I know how to recreate responsibly in a wildlife area without requiring additional information from any other source* **2,8**
 (7) *Having enforcement officers present in recreational areas is not intimidating and will not put people off visiting* **3,1**

Very unclear opinions

- (9) *There are already too many rules and regulations regarding recreational activities in a wildlife area* **3,8**
 (11) *Maintaining economic growth in a wildlife area is important and should not be held back by further regulating activities* **3,8**



Figure 17: Rating of answers after clarity, N=64-65.



Statements after frequency of indifference or ambiguity:

Very small indifference or ambiguity:

- (10) *Humans have the right to alter nature to satisfy their wants and desires* **3 %**
- (1) *Education is the most appropriate way to manage the behaviour of people taking part in recreational activities in a wildlife area* **6 %**

Small indifference or ambiguity:

- (7) *Having enforcement officers present in recreational areas is not intimidating and will not put people off visiting* **18 %**
- (14) *People who disturb wildlife are committing a serious crime and should be fined* **20 %**

Indifference or ambiguity:

- (4) *Encouraging people to go on guided tours would reduce incidents of wildlife disturbance* **22%**
- (2) *I have been well informed about the regulations that protect wildlife from human disturbance in a wildlife area* **22%**
- (12) *Humans should adapt to nature rather than modifying it to suit their needs* **23 %**
- (13) *Satisfaction and quality of life are more important than wealth and material considerations* **23 %**

Major indifference or ambiguity:

- (6) *I know how to recreate responsibly in a wildlife area without requiring additional information from any other source* **28 %**
- (3) *There should be more guides present to educate people taking part in recreational activities in a wildlife area* **31 %**

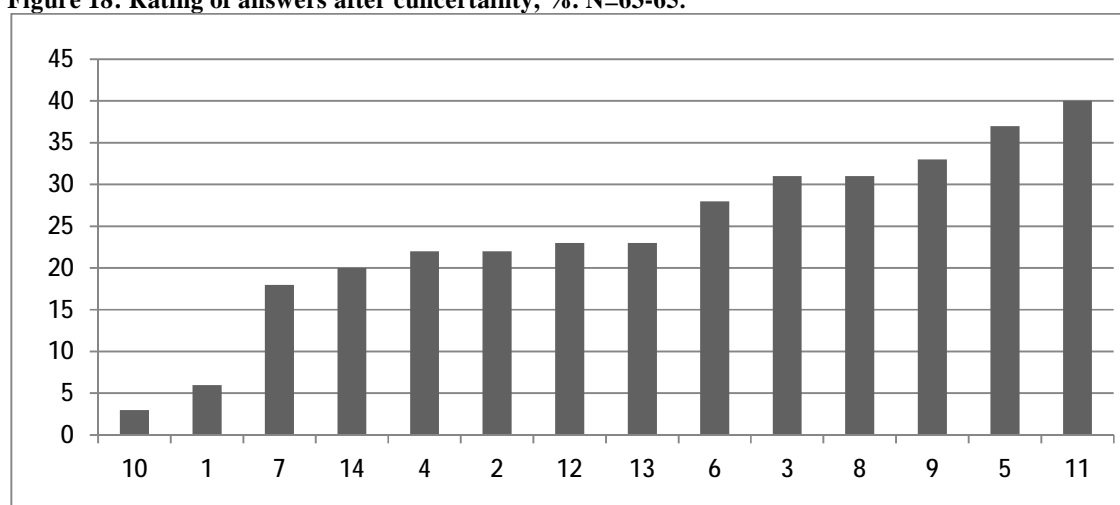


- (8) *Many people who visit a wildlife area have no idea how to behave around wild animals* **31 %**
- (9) *There are already too many rules and regulations regarding recreational activities in a wildlife area* **33 %**

Great indifference or ambiguity:

- (5) *Some animals in a wildlife area are used to people so it should be allowed to get closer for a better view or to take pictures* **37 %**
- (11) *Maintaining economic growth in a wildlife area is important and should not be held back by further regulating activities* **40 %**

Figure 18: Rating of answers after uncertainty, %. N=63-65.



Summing up

Clear statements:

- The statement that *humans have the right to alter nature* is rejected beyond doubt.
- The statement that *education is the most appropriate way to manage the behaviour* is accepted beyond doubt, especially among those below 40 years of age and among women.
- Maintaining economic growth instead of nature regulations is accepted by people in middle sized towns like the statement that there are too many rules is unclear for many, especially for people in middle sized towns.

Ambiguous statements:

- Most ambiguous is the attitude to the statements that maintaining economic growth is important and should be held back by nature regulations.



- Second most ambiguous is the attitude to the statement that says that some animals are used to people so it should be allowed to get closer.
- The attitudes to guides are not clear for most respondents and there are no categories with strong opinion about it. The answers to statement 2 (I have been well informed) and 4 (encouraging people to go on guided tours) confirm the picture of lack of information from the side of tourist guide organisations

These results show that these attitudes have to be focused upon when constructing a code of conduct if the biological view on sustainability is considered. The attitude on maintaining economic growth is a key question for actors within the triple helix model: entrepreneurs, researchers and public actors. They have not so far been able to explain and make it clear for the public what is essential for the development of sustainable society from both a biological and entrepreneurial view.

Statements after attitudes to wilderness:

A *utilistic* attitude.

- (2), *I have been well informed about the regulations that protect wildlife from human disturbance in a wildlife area* 2,6
- (9) *There are already too many rules and regulations regarding recreational activities in a wildlife area* 1,2
- (10) *Humans have the right to alter nature to satisfy their wants and desires* . 0,55

There are few tourists with a utilistic attitude among the respondents. Almost all deny statement 10 and most deny statement 9. Statement 2 may not be recognised as utilistic attitude and that is also noticeable in the ambiguity way it has been responded to.

A *humanistic* attitude.

- (1) *Education is the most appropriate way to manage the behaviour of people taking part in recreational activities in a wildlife area* 1,7
- (5) *Some animals in a wildlife area are used to people so it should be allowed to get closer for a better view or to take pictures* 2,4
- (6) *I know how to recreate responsibly in a wildlife area without requiring additional information from any other source* 2,2
- (7) *Having enforcement officers present in recreational areas is not intimidating and will not put people off visiting* 1,9



- (11) *Maintaining economic growth in a wildlife area is important and should not be held back by further regulating activities* **1,2**

There are few tourists with a humanistic attitude among the respondents. Most deny statement 11 and many deny statement 7. Answers to statement 5 and 6 may show ambiguity.

A mystic attitude.

- (12) *Humans should adapt to nature rather than modifying it to suit their needs* **1,9**
- (13) *Satisfaction and quality of life is more important than wealth and material considerations* **2,4**

There is an acceptance to some degree to a mystic attitude. A majority agree with statement 12 but there is a clear ambiguity about statement 13 even if there is a slight majority for agreeing.

A biocentric attitude.

- (3) *There should be more guides present to educate people taking part in recreational activities in a wildlife area* **1,4**
- (4) *Encouraging people to go on guided tours would reduce incidents of wildlife disturbance* **2,4**
- (8) *Many people who visit a wildlife area have no idea how to behave around wild animals* **2,9**
- (14) *People who disturb wildlife are committing a serious crime and should be fined* **2,4**

There is no clear picture of a biocentric attitude more than a clear agreement about statement 3 and a rather clear disagreement about statement 8. In general, the answers indicate an ambivalence to regulations.



CONCLUSIONS

The results of the questionnaire indicates several things about the attitudes of the visitors to the seal watching site at Illugastadir, Vatnsnes, Northern Iceland.

First, there is an accordance with the statement that humans have no right to alter nature for own benefits.

Second, lifestyle questions are important, like the priority of quality of life over material considerations.

Third, there is a considerable ambiguity about most of the other statements.

These results point to a lack of information on some environmentally important questions, especially statement 11, *maintaining economic growth in a wildlife area is important and should not be held back by further regulating activities*, and 5, *some animals in a wildlife area are used to people so it should be allowed to get closer for a better view or to take pictures*. The results indicate that much more effort must be put on information on these two issues if consensus on environmental conditions will be achieved. Above all, teleological rules and codes, where the background and aim with the regulations are stressed, should be used in codes, not odontological where the rules stand for themselves, unexplained.

Another result is the structure of the connections to different attitude typologies to nature, like utilistic, humanistic, mystic or bio-centric types of attitudes. The seal watching visitors to Illugastadir do not display a utilistic type of attitudes and they are rather ambiguous to a humanistic type. The mystic attitude is more clear like the bio-centric one. The latter is not connected to regulations.

These results point to an allocentric character of the tourists

The sample for the questionnaire is tiny and the statements are gathered at random from already existing codes of conduct. What is special with this study is its interdisciplinary character where tourism and biological researcher work together. A deeper investigation will be amde during summer 2011 with this method used as a frame for the investigations.



References

*Arler, F. (2002). En helt igennem demokratisk natur [A totally democratic nature]. In P. Agger (Ed.) *Naturens værdi [The value of nature]*. Copenhagen: Gad

Bertella, G. (2011) Wildlife tourism and natural sciences knowledge challenges and critical factors *Scandinavian Journal of Hospitality and Tourism* Vol. 11, No. 1, pp 97-114

Björnsson, B.T. & Nilsson, P.Å. (2010) *Quality Assessment Report, Illugastaðir, Summer 2010* Hvammstangi: The Icelandic Seal Centre

Bosetti, V., Gerlagh, R. & Schleicher, S.P. (2009). Modelling sustainable nature – transitions to a sustainable future. Cheltenham: Elgar

*Cacho, E.S., Romero, L.A. & Granquist, S. (2010) *Behavioural study of harbourseals (Phoca vitulina) and tourists in the Illugastaðir seal watching site*. Hvammstangi: The Icelandic Seal Centre

*Cassini, M. H. 2001. Behavioural response of South American fur seals to approach by tourists – a brief report. *Applied Animal Behaviour Science* 71, 341-346.

*Cole, S. (2007) Implementing and evaluating a code of conduct for visitors. *Tourism Management*. 28: 2, Pp 443-451

*de Kadt, Emanuel (1979) *Tourism - Passport to development ?* Oxford: Oxford University Press

*Fennell, D. (2007) *Ecotourism* (3rd edition) (Aingdon: Routledge).

*Garrod B. & Fennell D. A. (2004) An analysis of whale watching codes of conduct, *Annals of Tourism Research*, 31(2), pp. 334–352.

*Granquist, S. (2009) The behavior and abundance of harbor seals (*Phoca vitulina*); How do tourists affect the seals? Hvammstangi. The Icelandic Seal Centre.

*Granquist, S.M. & Nilsson, P.Å. (2010) *Harmony between man and nature. The case of seal watching at Vatnsnes peninsula, Iceland*. Paper presented at the 3rd International Conference on Solutions on Harmonising Sustainability and Nature Protection with Socio-economic Stability, at Vidzeme University, Valmiera, Latviva Aug 19, 2010.

*Hall, D., Mitchell, M. & Roberts, L (2003) *Tourism and the countryside: Dynamic relationship*,



in: D. Hall, M. Mitchell & L. Roberts (Eds), *New Directions in Rural Tourism*, pp.3-18 (London: Ashgate).

*Hughes, P. (2001). Animals, values and tourism – structural shift in UK dolphin tourism provision. *Tourism Management* 22, pp 321-329.

Hughey, K., Ward, J., Crawford, K., McConnell, L., Phillips, J. & Washbourne, R. (2004). A Classification Framework and Management Approach for the Sustainable Use of Natural Assets used for Tourism. *Tourism Management* 25, pp 349-363.

*Hull, J. (2001). Opening up the Big land to the World – The Role of the Public Sector in Adventure Development in Labrador. In B. Sahlberg (Ed.) *Going North*. Östersund: ETOUR.

*Jafari, J. (1996) *The scientification of tourism* In P.Å. Nilsson *History and tourism* pp 35-56. Östersund: MidSweden University

*Johnson M. W. and Lavigne, D. M. 1999. Mass tourism and the mediterranean Monk Seal- The role of mass tourism in decline and possible future extinction of Europe's most endangered marine mammal, *Monachus monachus*. *The Monachus Guardian* 2 (2) November 1999.

*Lück, M. (2007) *Nautical tourism* New York: Cognizant

*Mason, P. (1997) Tourism codes of conduct in the arctic and sub arctic region *Journal of Sustainable Tourism* 5(2), pp. 151–165.

*Nilsson, P.Å. (2002). Rekreation af tilgængelighed i et tætbefolket område – brug af attityder i det agrare Danmark [Recreation and accessibility in a densely populated area – use and attitudes in the agrarian Denmark]. Nexø: Centre for regional and tourism research.

*Nilsson, P.Å. (2009) *Access to nature – for whom?* Introduction lecture 28/3 2009, Holar University College

Nilsson, P.Å. Sigvaldadóttir, S.B (2011) *Visitors to the Seal Museum at Hvammstangi summer 2010* WP 15. Hvammstangi: The Icelandic Seal Center.

*Orams, M. 2002 Feeding wildlife as a tourism attraction: a review of issues and impacts. *Tourism Management* 23, pp 281-293.

Plog, S. 1994 Developing and using psychographics in tourism research. In J.R.B. Ritchie & C.R.



Gouldner (Eds.): *Travel, Tourism and Hospitality Research*. Chichester: Wiley.

*Sandell, K. (1995) Access to the "North" – but to what and for whom? Public access in the Swedish countryside and the case of a proposed national park in the Kiruna Mountains pp 131-146, In C.M. Hall & M.J. Johnston (Eds.), *Polar Tourism* London Wiley

Sigvaldadóttir, S.B. & Nilsson, P.Å. (2010) *Seals as humans – ideas of anthropomorphism and disneyfication*. Hvammstangi: The Icelandic Seal Centre

*Turner, L. & Ash, J. (1975) *The Golden Hordes*. Constable London

*United Nations Environment Program 1995

*Viglundsóttir, Y.H., Grankvist, S. & Nilsson, P.Å. (2011) Tourism, people and Protected Areas in Polar Wilderness, In R. Lemelin, L. Lundmark & D. Müller (Eds.) *Issues in Polar Tourism: Communities, Environments, Politics*

*World Travel and Tourism Council 1997

