Wild at Sea: The *wilderness* concept in Scottish and EU environmental and marine conservation, and its interpretations by stakeholders

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Declaration

I declare that this thesis has been composed by myself and has not been accepted in any previous application for the award of degree in any university. All quotations have been distinguished appropriately, and sources of information have been specifically acknowledged.

Vilma Kuuliala

Vilma Kuuliala   31 October 2016

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Abstract

For over a century there has been a push to preserve the areas of nature where the human impact is the smallest, often referred to as *wilderness*. In Europe the suitability of the concept is debated, as the entire continent has been heavily modified by humans, and the areas without visible human impacts are small and fragmented. At the same time there is a strong push for preserving these areas, including the areas at sea. At sea the *wilderness* concept faces unique challenges, as the environment is less understood than the terrestrial, and the potential *wilderness* areas are not necessarily accessible for recreational purposes.

This thesis examines the use of the *wilderness* concept, especially as it relates to the marine environment, in both policy and common use. The aim is to contribute to the conceptual framework for marine wilderness, by studying how the concept of *wilderness* is understood and used by policymakers and stakeholders. The research is conducted using discourse analysis on legal texts and newspapers, and surveys, interviews, and social network analysis to examine the views of individual stakeholders. The results show that while there is political will in Scotland to conserve *wild areas*, which are more modest in size than *wilderness* but provide the *wildness* quality and its beneficial effects, the concept of *wilderness* has multiple interpretations, and can be rather political. To address the consequent issues, participation of stakeholders is considered vital for successful management. Marine *wilderness* remains a particularly ambiguous concept, and considering the ongoing tensions in marine resources management, it is suggested that *marine wilderness* is more useful if seen as an added benefit than the ultimate goal.

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Acronyms

CAWL	Core Areas of Wild Land project
CBD	Convention of Biological Diversity
CFP	Common Fisheries Policy ((EU) No 1380/2013)
CoR	Committee of the Regions
EE	environmental education
EEA	European Environment Agency
EIMR	Egadi Islands Marine Reserve
EP	European Parliament
EU	European Union
HS	Historic Scotland
IPCC	International Panel on Climate Change
IUCN	The World Conservation Union
JMT	John Muir Trust
JNCC	The Joint Nature Conservation Committee
MCZ	Marine Conservation Zone
MEP	Member of the European Parliament
MPA	Marine Protected Area
MSFD	Marine Strategy Framework Directive (2008/56/EC)
N2K	Natura 2000
NATREG	Managing Natural Assets and Protected Areas as Sustainable Regional Development Opportunities project
NGO	Non-governmental organization
NOAA	The National Oceanic and Atmospheric Administration
NTMPA	no-take marine protected area
NTS	National Trust for Scotland

OSPAR	Oslo-Paris Convention for the Protection of the Marine Environment of the North- East Atlantic
PA	Protected Area
RCE	resource conservation ethic
SAC	Special Area of Conservation
SEPA	Scottish Environment Protection Agency
SFF	Scottish Fishermen's Federation
SNH	Scottish Natural Heritage
SPA	Special Protection Area
SPP	statement of public participation
SSSI	Site of Special Scientific Interest
TOC	The Ocean Conservancy
VMR	Voluntary Marine Reserve
WFD	EU Water Framework Directive (Directive 2000/60/EC)
WNP	Wakatobi National Park
WSSD	World Summit on Sustainable Development

PART ONE: CONTEXT

1. INTRODUCTION

The concept of *wilderness* has had a long and varied history, from the Biblical descriptions of the hostile Middle-Eastern deserts, through the awakening of the conservation movement in the United States, to the debates about bio- and anthropocentric understandings of nature and protected areas (McDonald, 2001; Worster, 2014). While the discussion about wilderness conservation mainly concerns terrestrial areas – sometimes explicitly, sometimes implicitly – calls for conservation of marine wilderness have appeared from the 4th International Wildlife Congress in 1987 onwards (Sloan, 2002). In Europe, a resolution by the European Parliament in 2009 called for definition and research of both terrestrial and marine wilderness areas within the European Union (2008/2210(INI)).

Certain differences between marine and terrestrial environments make the direct application of terrestrial concepts to the marine somewhat unsatisfactory. While in terrestrial conservation tourism income can often be used to balance the loss of income, for instance that resulting from limiting resource extraction, most off-shore areas are not frequently visited for recreational purposes. While there is significant revenue to be made in coastal and marine tourism, in the form of coastal visits, cruise tourism, marine wildlife tourism, and other marine and coastal activities, it is not evenly dispersed on the marine areas. In fact, WWF notes that 80% of all tourism takes place in the coastal areas (Gunther, no date). There are also limits to the use of concepts and arguments based on human experience that have become central in defining terrestrial wilderness (see Chapter 2). Our knowledge about the influence of human actions on the marine biosphere is still very limited, and it is often claimed that the ocean floor is less studied than the surface of the

moon. Moreover, fencing the ocean, and controlling the movements of flora and fauna or the spreading of human impacts is generally not possible.

If marine wilderness conservation is written into policy or law, the concept must be defined in a clear and understandable way, in order for the legislation to be functional and executable. A functional policy also requires the support of the people it affects, especially at sea where monitoring is often difficult, and where conflicts between conservation and fishing targets can be extremely polarised. Stakeholder involvement has been promoted as a solution for conflict in both terrestrial and marine management (Mangi & Austen, 2008; McNeely, 1994; Pimbert & Pretty, 1995). Therefore, in order to facilitate stakeholder participation, the applied terminology should also be easily interpreted by the layperson.

Both before and after the Wilderness Resolution of 2009, EU policy has played an important role in shaping the European seas, with different pieces of legislation attempting to balance economic needs and the preservation of natural features. While the European Union is often seen as an initiator of green policy, the recent European debt crisis has had an impact on the priorities within the Union and changes in the political landscape with right-wing parties with a strong nationalistic identity rising to power in several Member States. Furthermore, the results of the UK referendum on 23 June 2016 are causing new economic uncertainty after a period of modest growth (European Commission 2015; European Commission 2016). As for marine specific legislation, the EU fisheries policy became front page news with the Common Fisheries Policy (CFP) reform of 2013, after it had become clear that the old policy had done little to reverse the decline of European fish stocks (Khalilian *et al.*, 2010). The new CFP (European Parliament and Council Regulation (EU) No 1380/2013) aims to benefit both the stocks and the continuation of the

fishing industry within the EU, by maintaining the principle of maximum sustainable yield.

Currently the European seas are far removed from their natural state. The 2008 EU Marine Strategy Framework Directive (MSFD) sets the goal for the seas of Europe to be "healthy", "clean", and "productive" by 2020 (European Parliament and Council Directive 2008/56/EC, Art. 3). The EEA Report No 2/2015 notes that only 4% of the species and habitats assessments under the Marine Strategy Framework Directive have achieved the 2020 target of "good" status, with 80% of the species and habitats are still categorised as "unknown" (European Environment Agency 2015, p. 54). The status of habitats and species protected by the Habitats Directive is similarly bleak, as can be seen in Figure 1.1. Only 9% of marine habitats and 7% of marine species can be confirmed to have a favourable conservation status.
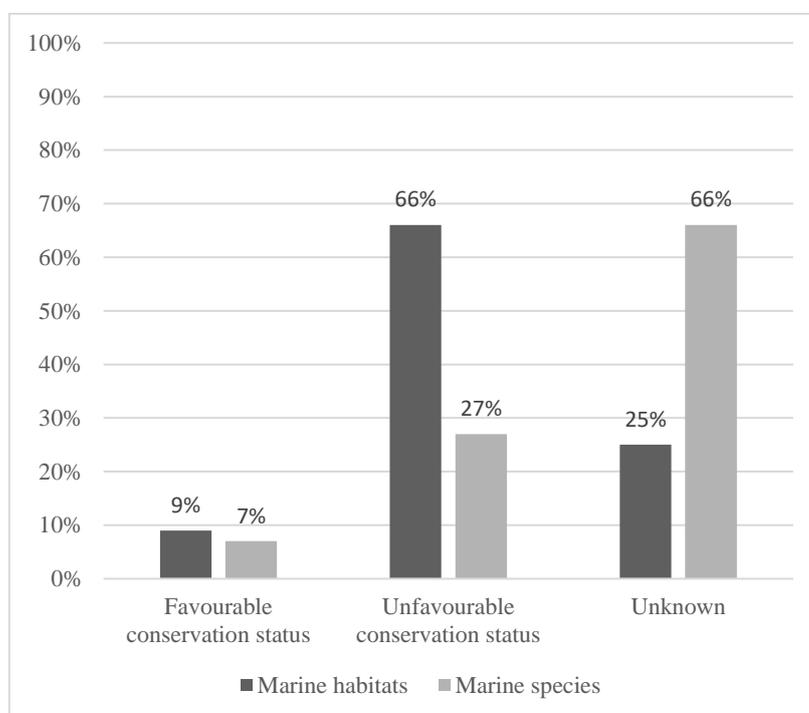
Figure 1.1 Conservation status of the marine habitats and species protected by the Habitats Directive (European Environment Agency, 2015, p. 54)

Of the assessed commercial stocks, 58% were found not to be of "good environmental status", whilst 40% could not be assessed due to lack of data (European Environment Agency, 2015, p. 54). The report also notes the continuing harmful impact of contaminants and nutrients from rivers and atmospheric sources, as well as marine litter, often fatal to wildlife and/or entering the food web, coming from both land and sea-based sources (European Environment Agency, 2015, p. 93). As for productivity, the report notes that maritime activities are estimated to contribute around €467 billion in annual GVA and 6.1 million jobs to the economy, but in many instances it is difficult to classify what is a marine or coastal activity, and activities such as shipping place pressure on natural capital without actually relying on it (European Environment Agency, 2015, p. 122).

Thus, there is a multifaceted interest directed towards marine environment and marine wilderness. Currently, both legislation and environmental status require effective marine conservation strategies. For the EU to reach its 2020 targets, time is of the essence. Yet in order to be politically supported, the strategies need to be cost effective within reason, and they need to be compatible with the policies that promote the productive use of marine resources. This research approaches the question of marine wilderness with the presumption that defining and understanding the concept before implementation is important not only for the reasons stated above, but also for avoiding unnecessary costs and delays of effective implementation.

This research looks into the use of wilderness concept in marine conservation particularly in Scotland. Over time, the country has in terms of terrestrial wilderness been both hailed as a rare example of European wilderness, and noted for its historical, all-encompassing

human presence. Aitken (1977) notes that while "[t]he wilderness of Europe… is largely concentrated in Scandinavia," yet:

> *[T]he wild uplands and islands and islands of Scotland hold a curious position as substantial tracts of extremely spares population and extensive land use, rather similar in some physical respects to parts of Scandinavia… This distinctive location gives the Scottish wildlands a relatively exalted value within the wilderness areas of Europe* (Aitken, 1977, p. 73).

Similarly Habron (1998) notes that describing the uplands of Scotland as either 'wild land' or 'wilderness' is a key selling point for Scottish tourism, yet the area has been heavily influenced by the presence of humans since the end of the last ice age. McMorran *et al.* (2008, p. 178) also note that barely any of the Scottish landscape is unmodified, yet the contemporary discourses of wild places have "considerable popular and political resonance in Scotland."

The North Sea is also very important to Scotland's economy. The country produced 62% of the UK's fish in 2002 (The Royal Society of Edinburgh, 2004, p. v), with the gross earnings of the pelagic sector being £98 million, the shellfish sector £94m, and the demersal sector £137m (The Royal Society of Edinburgh, 2004, p. 332). The total employment directly or indirectly dependent on catching, aquaculture and processing amounted to 48,000 (The Royal Society of Edinburgh, 2004, p. 341). The oil and gas production accounted for 96% of UK offshore oil production and 52% of offshore gas production in 2011, contributing £26 billion to Scottish GDP (The Scottish Government, 2013, p. 18). However, the importance of non-extractive use is also recognised by the

State. In 2015, the Strategic Framework for Scotland's Marine Tourism Sector launched a mission 'to develop and lead the growth of sailing tourism in Scotland from £101m of visitor expenditure to £145m by 2020, and to increase the overall economic value of the marine tourism sector from £360m to over £450m by 2020' (The Scottish Tourism Alliance, 2015, p. 49). As of 2014, 30 Marine Protected Areas (MPAs) have been designated in the Scottish waters under the Marine (Scotland) Act and the UK Marine and Coastal Access Act. The most recent MPA designation process has attracted considerable criticism from the Scottish fishers, who consider that their trust has been breached and participation in the consultation process ignored (Scottish Fishermen's Federation, 2015a, 2015b).

The Scottish coastal and marine regions therefore can be seen embodying many of the issues surrounding wilderness. There are multiple, potentially contradictory demands for the coastal resources, and equally multiple and contradictory views on the wilderness status of the country; features common for many European regions. The country's wilderness status, and its management, has also been discussed at national level (see Chapter 5). There are elements of tension and mistrust between marine conservation and fishing industry, which has the potential to complicate management processes and prevent their efficient and comprehensive execution. Thus, while Europe is in many ways a fragmented region, and the findings in one region cannot be unconditionally applied to others, examining Scotland can teach us something about the issues regarding wilderness definitions and management, as well as its challenges, both in the country and internationally. Additionally, while Scotland's future as a member of the European Union is at the time of writing very uncertain (see Chapter 5 for further discussion), its legislation is still closely tied with the EU regulations, and there is a strong political will to preserve

the country's place in the Union. Therefore, it is reasonable to expect that EU policy will continue to influence further developments in the country.

1.1. Research questions

In order to examine how *wilderness* is understood in the marine context, and how the different understandings may impact management, this research will seek to answer the following research questions:

1) How is the concept of *wilderness* defined, understood and used by policy-makers and stakeholders concerned with Scottish marine policy, by the public, and in EU law?

2) Are there contradictions in the definitions, and if so, what are the potential policy implications?

3) How do the stakeholders feel about their opportunities to participate in decision making in the areas potentially considered as *wilderness*?

Through these questions the study will eventually seek to determine whether or not *wilderness* is a usable and useful concept for marine conservation.

1.2. Thesis structure

The thesis is divided into three main parts as follows:

PART ONE: CONTEXT

1. Introduction

2. Literature review

3. Theoretical background and methodology

PART TWO: DATA COLLECTION AND ANALYSIS

4. Wilderness in newspapers: a discourse analysis

5. Wilderness in policy and legislation: a discourse analysis

6. Stakeholder surveys on wilderness perceptions

PART THREE: CONCLUSION

7. Discussion

A summary of these chapters is presented in Sections 1.2.1 – 1.2.3.

1.2.1. Part One: Context

Part One provides an introduction to the research rationale and methodological approach. Chapter 1 outlines the underlying rationale and presents the research questions and the thesis outline. Chapter 2 examines the history of the concepts behind the research questions in greater depth. The history and earlier research on the *wilderness* concept is discussed, illustrating its evolvement into a conservation term, and what forms the discussion has taken in Scotland and in marine conservation. Chapter 2 also considers the history of the *participation* concept, and the research done in both terrestrial and marine environments. Chapter 3 provides an introduction to the underlying theoretical approaches employed in and relevant to this research. The concepts of *post-normal science*, *ecological economics*, and *marine citizenship* are discussed in relation to the research questions. Chapter 3 also discusses the role of discourse analysis in law, detailing the importance of language used, the role of newspapers in forming the public opinion, and the limits set to law by the norms of human thinking. The methodology section presents the questionnaires used and the basis of the discourse analysis methodology, and discusses the scope, limitations and researcher bias of the thesis.

1.2.2. Part Two: Data collection and analysis

Part Two presents and discusses the collection and analysis of data. Chapter 4 presents the newspaper discourse analysis, introducing the methodology and software used, as well as

the three newspapers analysed. All three papers (*The Scotsman*, *Daily Record* and *The Herald*) are examined separately, to discover all the various ways they use the term *wilderness*. The chapter then combines the findings with an analysis of the results. Chapter 5 presents the policy and legislation discourse analysis, introducing the source materials from Scotland, United Kingdom, and the European Union. The chapter discusses the use of the *wilderness* concept, as well as related concepts such as *wild land*, in the relevant pieces of legislation and policy. Chapter 6 presents the two surveys conducted; the exploratory study conducted on St Abb's Head and the Isle of Rum, and the online survey which was used to test the hypothesis developed based on the discourse analysis. It introduces the field sites of the exploratory study, the respondent groups and survey designs of both surveys, and discusses the findings in detail.

1.2.3. Part Three: Conclusion

Part Three comprises a discussion and the conclusions of the thesis. Chapter 7 discusses the findings presented in Chapters 4 to 6, discusses how they relate to the literature discussed in Chapter 2, and combines them to the overall conclusion of the research. The wider implications of the findings are discussed, and recommendations for future management strategies are presented in sub-chapter 7.6.

2. LITERATURE REVIEW

2.1. Introduction

This chapter underpins the research through a critical review of literature specifically related to relevant concepts. This chapter starts with an overview of the history and development of the concept of *wilderness*, first in terrestrial and then in marine conservation (section 2.2.). It is followed by an overview of the development, usage and criticism of participatory management in protected area conservation (section 2.3.). The last section presents an overview of the current status on marine and coastal conservation in Scotland, and the relevant legislation (section 2.4.).

2.2. Wilderness

2.2.1. The history of wilderness in terrestrial conservation

The word *wilderness* originally had largely negative connotations in the European cultures. In Teutonic, Norse, and Old English it referred to the 'condition of being lost, confused, or out of control' (McDonald, 2001, p. 190). In the 14th century English translation of the Bible, it referred to the arid deserts of the Near East, and the words "wilderness" and "desert" are used almost interchangeably in different English translations. These lands were considered to be uninhabitable due to God's displeasure, and it was there that Adam and Eve were sent as punishment, the Israelites wandered for 40 years, and Jesus was tested for 40 days (Hendee, Stankey and Lucas, 1990). The human-centered worldview of Christianity prevailed in Europe for a long time, setting human apart from nature (Hendee, Stankey and Lucas, 1990). And as the European explorers and settlers made their way to America, they saw it as their duty to bring Godly order to the wilderness and to the wild savages (McDonald, 2001).

As the American frontier pushed westwards, some of those living in the settled areas began to see value in the disappearing wilderness. With first Enlightenment and then Nationalist ideas developing, and with the American Revolutionary War taking over the continent, the American wilderness began to be seen as a source of national pride (McDonald, 2001). While the American continent did not have art or architecture to match that of Europe, its wilderness became something to set the new nation apart from the Old World. So after a period of lamenting the inevitable loss of the American wilderness, calls for its active protection began in the early 1800s, and the Yellowstone National Park, the first officially protected area of wilderness, was established in 1872 (Hendee, Stankey and Lucas, 1990).

The 19th century also saw the rise of wilderness literature in the United States. Henry David Thoreau's *Walden*, published 1854, details the author's two-year experience of living in woodland in Massachusetts. The book describes the nature of the woodland and Thoreau's experiences in it, and reflects upon humanity through this lens.

> The indescribable innocence and beneficence of Nature – of sun and wind and rain, of summer and winter – such health, such cheer, they afford forever!... Shall I not have intelligence with the earth? Am I not partly leaves and vegetable mould myself? (Thoreau, 1854, p. 106)

Thoreau's woodland and its creatures are valuable in their own right, and he feels connected to them rather than opposed to them, even if he leaves his mark on the environment by building his own cottage and making his own crops.

John Muir, the Scottish-born naturalist, author, glaciologist, and one of the petitioners of the 1890 National Parks bill, which established the Yosemite National Park, wrote the bulk

of his work between 1984 and 1918. Muir is seen as the founder of the American national conservation movement, and he was also the founding president of the Sierra Club (White, 2009). While the first chapter of Muir's *The Story of My Boyhood and Youth* (1913, in White, 2009) describes his childhood in the "fields and seashores" of Scotland, most of his writing describes the wilderness of North America, where he spent most of his life. Muir published a series of articles, some of them compiled into a book *Mountains of California* in 1894, describing the American nature and its wildlife with both scientific curiosity and empathy. His *My First Summer in the Sierra* (1901, in White, 2009) describes his experiences as a shepherd, travelling across the Sierra with 2,050 sheep, four humans and a few dogs. In the Sierra, Muir marvels about the nature around him, but worries about the damage caused by the grazing, trampling sheep. 'The dusty, noisy flock seems outrageously foreign and out of place in these nature gardens, more so than bears among sheep. The harm they do goes to the heart…' (Muir, 1901, in White, 2009, p. 253). Two other article collections, *Our National Parks*, published in 1901, and *The Yosemite*, 1912, promoted the National Parks and highlighted the damage caused to them by sheep, dam projects, and other human influence.

Roderick Nash's *Wilderness and the American Mind* was first published in 1967. Further editions were published in 1973, 1982, and 2001, and over the editions it grew from a work only concentrating on the anthropogenic significance of wilderness to also discuss the ethical and biocentric values (Nash, 2001, p. viii). Nash discusses the etymology of the term, and traces the development of the cultural ideas related to the context, from the ancient myths of monsters living in the wilderness, through the frontier era ideas of taming it, the Romantic era's admiration of "sublime" wilderness and "primitive" living, to the patriotic belief in the superiority of the American wilderness. He discusses the rise of the concern for that wilderness, noting the writings of Thoreau, Muir and others, the

foundation of the first National Parks, and the subsequent enthusiasm for both preserving and enjoying the wilderness, waxing, waning, and captivating different individuals and subgroups across the decades. Nash highlights the controversy over the damming of Hetch Hetchy valley in 1913 as something of a turning point.

One hundred or even fifty years earlier a similar proposal to dam a wilderness river would not have occasioned the slightest ripple of public protest… What had formerly been the subject of national celebration was made to appear a national tragedy (Nash, 2001, p. 181).

However, neither the treatment nor the definition of wilderness became unequivocally established. As described by Hendee, Stankey and Lucas (1990), offering the "wilderness experience" for visitors in Yellowstone during the early years meant making their life as comfortable and untroubled as possible. Comfortable lodges and coaches were provided, bears were regularly fed to make sure they made an appearance, and soap was dumped into the geysers to cause convenient eruptions. At Yosemite National Park, first live chickens and then burning logs were tossed over the cliffs to provide entertainment to the visitors (Hendee, Stankey and Lucas, 1990). Attitudes slowly changed, however, and when the Everglades National Park was founded in 1934, the act of establishment specifically stated that 'no development of the project or plan for the entertainment of visitors shall be undertaken which will interfere with the preservation of the… **essential primitive natural conditions** now prevailing in this area' (Act of May 30, 1934, my emphasis). The 1920s and 1930s also saw scientists beginning to consider the number of people the parks could feasibly accommodate, with the concept of carrying capacity being introduced in the early 1940s (Hendee, Stankey and Lucas, 1990).

Nash (2001) also discusses the "irony of victory", of the success of the wilderness movement – and technological developments – leading to wilderness being "loved to death". The Sierra Club came to the understanding by the 1950s that their members were a part of the problem, and the idea of carrying capacity was introduced to wilderness preservation in the 1950s and 1960s. The anthropocentric vs. biocentric debate led to a distinction between *biological carrying capacity*, the ability of life forms and processes to withstand human caused alteration, *and psychological carrying capacity,* "the impact of people on people" (Nash, 2001, p. 324).

According to Hendee, Stankey and Lucas (1990), the development of *wilderness management* and the growing understanding of human influence on it eventually led to The Wilderness Act coming to force in 1964, with the first official legal definition for wilderness:

> A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain (The 88th United States Congress, 1964, sec. 2c).

The evolution of the term *wilderness* did not, however, end in the 1960s. As the idea of wilderness protection spread around the globe, the definition changed with the surrounding environment. The World Conservation Union (IUCN) defines *Wilderness area* as:

> Large area of unmodified or slightly modified land, and/or sea, retaining its natural character and influence, without permanent or significant habitation, which is protected and managed so as to preserve its natural condition (IUCN Commission on National Parks and Protected Areas, 1994, p. 18).

Later, the PAN parks foundation adds quantification, defining "wilderness" as:

> An area of at least 10,000 ha of land or sea, which together with its native plant and animal communities and their associated ecosystems, is in an essentially natural state (Jones-Walters and Čivić, 2010, p. 339).

At the same time, the very existence of wilderness in the modern world has been questioned. In the words of Peter Bridgewater:

> While "wilderness" is still a popular ideal, it has long gone from this world. The wildernesses of today are only in human minds and we confuse such wilderness with conservation imperatives at our peril. There is nowhere we can "leave" as wilderness, rather we must be managers of human interaction on land or in the sea, wherever we are (Oglethorpe, 2002, p. 163).

Those who still believe in the existence of wilderness are increasingly bringing human experience into the discussion. In 1996, *Environmental History* published five essays, one by William Cronon discussing the problems of the wilderness concept in the U.S., three responses to that essay by different scholars, and a response to the responses by Cronon. In his original essay, Cronon proposes radical rethinking of wilderness. He suggests wilderness is a human creation, and a product of a particular civilization in a particular time. Because of this, something about wilderness itself is unnatural. He backs up his argument with the negative religious history of the wilderness term discussed above, and how it eventually ended up reversed in the writings of people such as David Thoreau, Roderick Nash and John Muir. He discusses the sacredness and spirituality bestowed by the Westerners on "sublime" landscapes, the kind of majestic locations that in the U.S.

became National Parks, at the expense of less interesting sights. He also discussed the nationalist ideals attached to wilderness in the U.S., and the related, masculinized frontier myth, and how wilderness became the location of choice for the elite (male) tourist, who was told he was emasculated by civilization, despite the fact that he was also the one reaping the most benefits of it. Thus, according to Cronon, wilderness '…became to reflect the very civilization its devotees sought to escape' (Cronon, 1996b, p. 15). He also discusses the irony of referring to wilderness as "uninhabited land", when the Native Americans living in these areas were forcibly relocated, in order to not spoil the tourists' illusion of the environment as original, pristine 'new morning of God's creation' (Cronon 1996b, p. 15). It also allowed the visitors to forget the rather bloody history of the American frontier. Cronon suggests that this kind behaviour still takes place in the tropical rainforests. This constructed nature of wilderness, according to him, is harmful, as much of the modern environmentalism is built on it. Especially as it places the human outside the natural world, leaving no room for an ethical, sustainable human life within nature – at the same time suggesting that wilderness is our real home, where a human is supposed to be and where one can be spiritually healed. As an alternative, he suggests adopting the point of view that humans are and always have been part of nature, and that the mere presence of humans does not destroy it. This, he suggests, would prevent setting the class-privileged wilderness visitors against the rural, often poorer people, and would motivate people to preserve and care about the less sublime, smaller areas closer to home.

In his response, Samuel P. Hays criticizes Cronon for ignoring the views of the current U.S. environmentalists, and for focusing on a few, selected writers. He discusses the work he himself did in the 1970s, which concentrated on promoting the protection of forests with "relatively unnoticeable human intrusion", against the Forest Service who argued that the areas were not pristine enough to be considered wilderness. They sought to preserve

nature as it was at the time, and, according to him, they considered it to be in their own backyard, rather than something remote. He also notes that other wilderness organisations he joined seemed to have largely similar ideas:

> The dynamics of human engagement with wilderness was the same: people living in an urbanized society who felt that wilderness areas would enhance the quality of their life while enjoying modern material standards of urban living (Hays, 1996).

Thus he criticizes Cronon for not following those in the field who have long been going to the exact direction he wanted them to go. He argues that the wilderness movement is already focusing on the areas close to home, and has long since abandoned the romanticized ideas about nature to focus on recreation. Additionally, he argues that the idea of perpetuating 'pristine' conditions has been dropped in favour of trying to save wilderness areas from development, and that wilderness advocates wish to create, not 'a role for humans amid nature, but to create a role for nature amid humans' (Hays 1996, p.30), to balance the benefits of civilization with 'some nature'. He notes that for a long time conservation projects have focused on bringing nature into urbanized environments, and have consequently made wilderness a middle class, rather than a more elitist pastime. He also criticises Cronon's suggestion that the idea of wilderness diverts environmentalists from the real environmental affairs, as according to Hays all sectors of the environmental community consider themselves neglected, and Cronon polemicizes the already heated debate with a false historical analysis and personal moral struggle.

Michael P. Cohen notes that he shares some lines of thought with Cronon, but he analyses Cronon's essay through literature criticism and criticizes it as weak in that framework. He notes that Cronon's discourse considers wilderness a socially constructed abstraction, a

human perception, rather than a concrete place, landscape, or ecosystem. He notes that Cronon takes Roderick Nash's idea that 'wilderness is a noun, but acts like an adjective'. In this context, Cohen notes that the term *wilderness* has many uses:

a) as noun or adjective: name or quality (what it is)

b) as image, or icon: symbol (how it means)

c) as ideology (where it fits in a system of values)

d) as representation (how its literary or political rhetoric mediates)

e) and as the Law (The Wilderness Act as social convention and tool) (Cohen 1996, p.34)

Cohen notes that Cronon mainly discusses wilderness as ideology (c), becoming somewhat weak on approaching literature (a:b) or politics (d:e). He, however, supports the idea that wilderness advocates are nervous about abandoning the traditional polarity of nature and culture, or wilderness and civilization, as that would mean throwing away the background of their own commitment. He suggests that Cronon does not confront the 'full force of [wilderness] literary canon', and that his selection of authors is not broad enough to provide a credible literary history (Cohen, 1996, p. 38). Like Hays, Cohen notes that Cronon's own morals come into play, allowing him to rewrite the wilderness tradition.

Thomas R. Dunlap notes that some of the environmentalists' resistance towards Cronon's essay might come from 'the hurt dog howling first', as well as from the fact that it makes the environmentalist movement face the history of forcibly dislocating native people (Dunlap, 1996, p. 44). Additionally, Cronon's essay *sounds* like anti-environmentalist writing, even though that might not be its intended purpose. Dunlap supports Cronon's view of environmentalism, and particularly wilderness, as 'the new religion'. He also

agrees with the idea of forced dualism, suggesting that scholars and activists have played their part in creating that division, studying humans and nature as two separate things. However, he advises caution in writing criticism of environmentalism, as it will, he believes, inevitably be used by opponents.

In his response, Cronon apologises for offending his readers, and notes that his original essay was written in 1994, when the political atmosphere in the U.S. was less anti-environmental than it was in 1996. This, he says, may explain why his essay seems so dangerous, and yet the fear of such political backlash motivated him to write the essay in the first place. He suggests that self-criticism of the environmental movement, as well as the inclusion of ordinary people in nature conservation, would help avoid such backlashes. He also notes that he has in fact long personal involvement with the wilderness movement, and while reflecting on his own values, he also reflects on those of his contemporaries. He suggests Hays' disagreement with him comes from a generation gap, as Hays and his contemporaries take the wilderness movement for granted, while Cronon's own generation built it on the ideas of Muir *et al.* and the frontier myth. Additionally, he notes that he himself focuses broadly on the American culture, while Hays focuses on the day-to-day work of activists, and that while Hays criticizes him on interjecting his own moral struggle, Hays in fact also bases his writing on his own 'experience and politics' (Cronon, 1996a, p. 50). As for Cohen's critique, he notes the different approaches of a historian and a literary scholar, admitting his own flaws when it comes to oversimplifying literary texts. He explains his polemical style as an attempt to start a serious discussion, noting that:

> I am struck by the number of people who read this essay and react first by declaring that
> we all know wilderness to be a cultural construction, and then proceed to offer a string

of arguments in which wilderness is not cultural at all, but purely natural (Cronon, 1996a, p. 52).

In discussing Dunlap's criticism, Cronon returns to the topic of wilderness as religion, noting that he himself in his original essay was not as respectful of it as he should have been, or he indeed would have been, had he been writing about any other religion. He finishes the discussion by emphasizing his desire to keep 'the wild' as a way of defining nature, but in a way that allows human beings to simultaneously use and conserve it.

Almost a decade after the correspondence between Cronon and others, Watson (2004) criticises wilderness literature, including The Wilderness Act, for its attempt to define the concept through a single universal set of purposes. He notes that those purposes could each be received in many non-wilderness locations, and are not received in many areas that are protected as wilderness. He emphasizes that wilderness means different things to different people, which means that it should not be defined too precisely. He notes that areas considered "untrammelled" under the Wilderness Act have, in fact, been trammelled by Native Americans for generations - what he does not specifically mention is the forcible removal of those Native Americans. Rather than excluding some people and their concept of wilderness, Watson suggests defining the character of wilderness 'through describing, understanding, and even monitoring the relationship people have with wilderness' (Watson, 2004, p. 5).

The European Parliament's wilderness resolution (2008/2210(INI)) calls on the European Commission to 'define wilderness; the definition should address aspects such as ecosystem services, conservation value, climate change and sustainable use' (2008/2210(INI), Art. 1). It also calls for mapping the wilderness areas in Europe, 'in order to ascertain the current

distribution, level of biodiversity and cover of still untouched areas as well as areas where human activities are minimal (divided into major habitats types: forest, freshwater and marine wilderness areas' (2008/2210(INI), Art. 2). A strategy should then be designed for developing these areas, in line with the Birds and Habitats Directives. The content and consequences of the resolution are further discussed in Chapter 5.

Jones-Walters and Civic (2010) discuss the possible consequences of the European Parliament resolution. They emphasise the need to promote wilderness in the context of the Common Agricultural Policy, as well as the 2020 biodiversity strategy. In discussing wilderness definitions, they make a distinction between ecological and perceived wilderness, yet they admit that separating the two is difficult, as conservation biology as a whole has much to do with values. They note that wilderness is generally associated with the naturalness concept, which is used in conservation in two different ways: as a value and as a parameter (Jones-Walters and Čivić, 2010, p. 338). They also note that perceived wilderness does have conservation interest, as 'within the concept are implied aspects of human behaviours and preferences in relation to attitudes, use and enjoyment of natural areas' (Jones-Walters and Čivić, 2010, p. 338). Thus, it affects both management and business decisions. They also highlight the strong role of human judgment and perception in conservation biology, and the difficulty of separating them from the ecological parameters.

In 2014, *Environmental History* (Volume 19, Issue 4) celebrates and reflects 50 years of the US Wilderness Act. Worster talks about the higher altruism required for conservation:

> Only the human species could mourn another creature's extinction or work to protect earth's ecosystems... The conservation of energy and matter for the sake of survival are

common behaviors… but not the conservation of otherness, of wholeness and balance, of endangered communities of life. Those require the evolution of what we might call the higher altruism, an intentional selflessness that may have an element of self-interest but expands to find moral purpose in the act of preservation (Worster, 2014, p. 716).

To Worster, the Wilderness Act is a 'high point' for such ecological altruism in the US. He sees the Wilderness Act as a switch from anthropocentric to biocentric, noting that 110 million acres are protected under it. Worster seems surprised that it has since become controversial, and criticises the fact that preservationists are accused of mistreating the poor of the world. To him, the struggle to allow 'the poor' access to the natural resources is an extension of anthropocentrism and human exploitation of nature. He leans on Aldo Leopold, who 'would surely grant that social justice is an important principle of modern ethics, even though it is notoriously vague and lacking consensus' (Worster, 2014, p. 718). However, Worster admits that absolute ecological altruism would lead to a world altogether devoid of people, and that acknowledging some human needs is fundamental to its survival. He suggests that the costs of preservation should be paid for those who can bear them, in other words the richest individuals and nations. He also challenges the claims that there is no actual wilderness left in the world, claiming that it is a 'reductive and absolutist' way of thinking:

> The higher altruism does not require us to follow an impossible standard of Edenic purity. It does require us to care about any and all life that transcends our human boundaries and sympathies. (Worster, 2014, p. 720)

In the same issue, Robin examines Australia's reactions to the Wilderness Act. She notes that while the Act had an Australian following in the 1960s, to most Australians their wilderness – the bush – had very little romantic or heroic connotations. It was still a harsh,

inhospitable and most importantly dry environment, very likely to kill you. The Australian Academy of Science established ecological rather than aesthetic principles for nature reserves, with the intention of preserving as many representative ecosystems as possible, although some states modelled their Parks Acts more closely on the US version. Since the 1970s, Australia has gone through a significant revision of human history, with the recognition of the Indigenous past.

> Biodiversity management practices in Australia have been described as oppressive of Indigenous understandings of Country and in denial of the history of both Aboriginal and settler land management practices. "Biodiversity is a whitefella word," one bumper sticker declared (Robin, 2014, p. 724).

To the Aboriginals, like many other indigenous cultures, the domains of culture and nature were not separated. Once this was understood and acknowledged, a different nature reserve system emerged. Aside national parks and private reserves, Australia now has Indigenous Protected Areas (IPAs), which are owned and cared for by the Aboriginal communities (Robin 2014).

Wakild then discusses the Wilderness Act in the Latin American context, noting that in Mexico, neither Spanish nor the indigenous languages have a word for *wilderness*. 'This conflation—the absence of a concept versus the absence of a concrete reality—is where debates over wilderness and conservation have misrepresented the past natural and cultural history of the larger American hemisphere' (Wakild, 2014, p. 729). She notes that main criticisms have been directed towards resettling of people and overestimations of the fragility of nature by ecologists and conservationist – in other words, the conflict between Western scientists and the non-Western indigenous peoples. However, Wakild notes that

the Latin Americans already had set conservation areas by the time of the passing of the Wilderness Act, many of which were sources to national pride similarly to the wilderness areas of US. The majority of these areas were designed with the intention to leave the people living in them in peace, rather than to relocate them. As Wakild states:

> Postcolonial, developing, and sovereign countries around the world created conservation areas on their own terms and for myriad reasons. We owe it to the future not to let these thousands of experiments over the past century go without consideration simply because inequality and social unrest persist (Wakild, 2014, p. 730).

Inclusion of inhabitants is not entirely unproblematic. Peru's Manu National Park, almost twice the size of Yellowstone and with immense species diversity, is inhabited by four indigenous groups with populations of 500 or less. Although the human population is currently small, its size is increasing by 4.7% a year, indicating that eventually the number of humans inside the park is going to become a problem. While Wakild does not specify what these problems would be, it can be assumed that the increased number of people in the park is going to lead to increased resource consumption. While incentives have been suggested to encourage voluntary land swap, the question remains whose perspective is most important in park conservation (Wakild 2014).

In the areas of the world where wilderness is considered long gone, the idea of rewilding has been introduced. The main question is: Is it possible for humans to bring wilderness back to an area thoroughly changed by humans, or is the concept in itself an oxymoron? Monbiot (2014) notes that the word has evolved from referring to releasing captive animals into the wild to the rehabilitation of entire ecosystems. He criticises wildlife groups in the UK or using grazing to prevent grassland, moorland and other low growth

ecosystems from reverting to woodland. He highlights in particular the damage caused by sheep, which seems to suggest that not much has changed since the days of John Muir.

In Monbiot's rewilding, humans take a step – or several – back, and let the environment develop freely, without end goals in mind. Monbiot also discusses the sea. On the politics of marine conservation, he wonders:

> *...what hold the fishing industry – a small component of the European economy – has over ministers and members of parliament. Does it sink the bodies of their political opponents? Does it deliver the cocaine they use? While I doubt the reasons are as exotic as these... the political power of this industry is often mystifying (Monbiot, 2014, p. 247).*

For Monbiot, rewilding also involves the rewilding of human life, not a return to "a hunter-gatherer economy", but re-involvement with nature. His yearning for rewilded areas is unashamedly self-centered. While he discusses the ecological benefits at length, and even the economical benefits for the fishing industry, he openly admits his own burning need for wild experiences.

A study by Ceaușu *et al.* (2015) presents a framework measuring the potential for rewilding in areas across the European Union. The framework discusses the use of abandoned farmland for rewilding, as well as suggests specific aspects of wilderness that could be addressed in future EU policy. It observes that significant areas of projected abandonment are often located in the vicinity of Natura 2000 sites, and argues that to support rewilding in larger scale, Natura 2000 management needs to incorporate rewilding.

The potential of rewilding has also been studied in the Alpine region. Bauer, Wallner and Hunziker (2009) found four different types of human-nature relationships in Switzerland. They named these groups 'nature lovers', 'nature sympathizers', 'nature connected users' and 'nature controllers' (Bauer, Wallner and Hunziker, 2009, p. 2913). Approximately half of hese could be classified as wilderness opponents (51.1%) and half as wilderness proponents (49.9%). To address such different attitudes in rewilding projects, Bauer, Wallner and Hunziker emphasise the need for negotiations, information campaigns, and participatory processes including all the stakeholders, especially nearby inhabitants. They also recommend thoroughly assessing their attitudes, in order to identify target groups and provide appropriate management actions to meet the needs and characteristics of each group. Höchtl, Lehringer and Konold (2005) came to similar conclusions studying Northern Italy, where they found that the stakeholders concerns regarding wilderness and rewilding come from a combination of psychological and economical issues. Mentioned concerns included the fear of bush fires, as well as 'loss of historical experience, cultural knowledge and local identity' (Höchtl, Lehringer and Konold, 2005, p. 91). Höchtl, Lehringer and Konold suggest a scenario 'in which "dynamic, wild areas" coexist with areas of cultural importance on the basis of the existing park-zone concept' (Höchtl, Lehringer and Konold, 2005, p. 94).

2.2.1.1. Wilderness in Scotland

Possibly the first comprehensive study of Scottish wilderness areas is done by Aitken (1977). He notes that the term is 'a most curious will-o'-the wisp: it is not a place, but a quality of place; a value – or an absence of value – which man ascribes to part of his environment' (Aitken, 1977, p. 1). Aitken sets out to examine both the changing concept of wilderness, and the possible locations for terrestrial wilderness in Scotland. He notes that the introduction of the Romantic view on wilderness in Scotland happened with

roughly the same schedule as in the rest of the Western world. One early influential writer was James Thomson, whose *The Seasons* was published between 1726 and 1730. According to Aitken, '[t]his cycle of lyrical poems took nature appreciation out of the pastoral tradition in which it had long languished, into a new more rugged and realistic world' (Aitken, 1977, p. 19). He notes that Thomson's work prepared the 'cultured classes' for the works of Rousseau three decades later. Rousseau was followed by James MacPherson, Thomas Pennant, Walter Scott, and others who turned their appreciation and awe of the Scottish landscape into classic fiction and poetry

> Thus in a space of not much over fifty years the Scottish – and the European – view of wilderness had been transformed: from an uninformed prejudice of long-standing against wild lands and their inhabitants, to a largely ill-informed and fashionable prejudice in their favour (Aitken 1977, p.28).

Discussing Scottish wilderness, Aitken acknowledges the historic human influence. He quotes Olson *et al.* (1971) on the US Wilderness Act:

> As the editors of Living Wilderness point out, 'the legal definition in the Wilderness Act says nothing about "virgin" and clearly the omission was intentional' (Olson *et al.*, 1971,7). This implicit acceptance as wilderness of country that merely appears to be natural is very significant, particularly as a precedent for Scotland (Aitken, 1977, p. 56).

In his study of recreationists' perceptions of wilderness, Aitken finds that the most important qualities 'center on remoteness, rather than on ecological purity or the absence of human influence; it is tacitly acknowledged that the resource is for the most part a relative one, by no means untrammelled by man and his works' (Aitken, 1977, p. 293). The more 'purist' wilderness enthusiasts are also rather averse to 'tourists'. Aitken notes

that four out of five recreational users do not 'object to meeting fellow enthusiasts in wild areas, especially if they are in small parties, but they do object to meeting tourists' (Aitken, 1977, p. 299).

The term *wild land* rather than *wilderness* has become popular in the more recent Scottish discussion, to highlight the fractured nature of the Scottish 'wilderness' and the historic human influence. Habron (1998) addresses this, noting again the fact that while the Scottish Highlands are widely marketed as wilderness in tourism and the media, they have been heavily influenced by human presence ever since the end of the last ice age, from grazing and forestry to modern development projects and recreational activities. Thus they are very much a cultural landscape. As the wilderness concept has been successfully used elsewhere in the world to protect both pristine – where such thing is considered to exist – and semi-natural environment, he considers the possibility of applying the concept on the Scottish cultural landscape.

> [C]ountries have defined wilderness in their own terms and for their own purposes showing the differences between cultures in the perception of 'wild land', but all have the common underlying theme to protect the land allowing the process of natural change to continue unhindered by the intervention of humankind. In essence there is a need for a definition of Scottish 'wild land' that could be used by all in discussing future land use policy of such areas (Habron 1998, p. 46).

Habron thus readily accepts the idea of national and regional differences in wilderness definitions, and studies the concept of wild land solely in the Scottish Highlands. According to his findings, a majority of people consider that there is wild land in Scotland. His respondents differentiate between "wild land", "natural", and "beauty". Thus, wildness

in Scotland appears to be not only a definable, but also a physically present concept, with the implication that wild land can be considered 'a resource in its own right' (Habron, 1998, p. 55).

In a policy statement from 2003, Scottish Natural Heritage discusses and assesses the current status of wildness and wild land in Scotland. The statement rejects the term *wilderness* in the Scottish context, noting that it 'implies a more pristine setting than we can ever experience in our countryside' (Scottish Natural Heritage, 2003), and that the size of wild landscape areas in Scotland is rather modest compared to other so-called wilderness areas in the world. The statement notes that the preferences, experiences and perceptions of an individual form the basis for the appreciation of wildness, and that enjoyment of wildness can be an inspirational experience. While the statement does not draft an actual definition for wildness, it notes that the main attributes are natural character, remoteness, and the absence of overt human influence. It also notes that 'the challenges of our western and northern coastal waters, and the high quality of sailing in this environment, offer equal rewards to those to be experienced on land' (Scottish Natural Heritage, 2003). The statement takes into account the fact that the areas exhibiting wildness character are often workplaces or sources of livelihood, and as main visitor attractions have significant local economic value.

> Debate about how best to protect wild land should therefore be a matter of how we evolve and collectively agree on new values for land having this special aesthetic quality, which meet the needs of a changing and more inter-dependent society – both the rural and urban populations (Scottish Natural Heritage 2003, p.3).

McMorran, Price, and Warren (2008) also choose the term *wild land*. Additionally, they use *wild landscape*, a broader term, which to them encompasses various degrees of wildness and is more appropriate term than wilderness for the smaller, more natural areas of Europe. They cite Aitken *et al*. (1992), noting that in Scotland the rejection of the term wilderness 'also most probably reflects the recognition on the part of wild land proponents that wilderness in a Scottish context "retains a pejorative connotation as a waste or desert place"' (McMorran, Price and Warren, 2008). They also suggest that, similar to the Americans, the appreciation of wild landscape is part of the Scottish psyche. As in the U.S., the appreciation of Scottish wildness was established by Romantic era writers, praising the national landscape, and this was turned into management principles in the 1930s by the National Trust for Scotland (NTS). Yet the definition of wild land remains contentious, although most Scottish conservation organisations agree with the importance of limiting the apparent human effect (see Table 2.1). McMorran *et al* (2008) emphasise the importance of a locational definition for policy making, as an ill-defined category is impossible to protect. They discuss the definitions used by the National Trust for Scotland, Scottish Natural Heritage (SNH), and the John Muir Trust (JMT), noting that SNH makes a clear difference between perceptual attributes (such as the experience of risk) and physical attributes (density of human artefacts). This suggests that wilderness experience is not confined to legislatively designated wild land areas, and also, that wild land does not need to be of the highest conservation value. This poses a degree of conflict between wild land protection and ecological restoration, as restoration projects focusing on improving biodiversity may have a negative effect on the wild character. McMorran, Price and Warren also note that all three institutions differentiate between *wildness* and *wild land*.

[W]ildness being the quality experienced (through such values as solitude) and wild land

being described as "extensive areas where wildness (the quality) is best expressed"

(SNH 2002, p. 2, cited by McMorran, Price and Warren 2008, p.183).

Table 2.1 presents the different wild land definitions in governmental and NGO policies in

McMorran, Price and Warren.

Scottish Office Development Department: NPPG14 Natural Heritage (Scottish Executive 1999)	''Uninhabited and often relatively inaccessible countryside where the influence of human activity on the character and quality of the environment has been minimal''.
Scottish Natural Heritage: Wildness in Scotland's Countryside (2002, p.2)	''The term 'wild land' is . . . best reserved for those limited core areas of mountain and moorland and remote coast, which mostly lie beyond contemporary human artefacts such as roads or other development''.
National Trust for Scotland: Wild land policy (2002, p. 4)	''Wild land in Scotland is relatively remote and inaccessible, not noticeably affected by contemporary human activity, and offers high quality opportunities to escape from the pressures of everyday living and to find physical and spiritual refreshment''.
John Muir Trust: Wild land policy (2004, Sec. 2.4)	''Uninhabited land containing minimal evidence of human activity''.

Table 2.1 Wild land definitions in governmental and NGO policies, according to McMorran, Price and Warren 2008, p.180

Armstrong (2012) summarises the results of four studies from 2003 to 2011 on public

perceptions of Scottish *wild land*. Some of the main findings include:

- The importance of wild land for a variety of reasons, including heritage and culture, tourism industry and conservation of nature and wildlife.

- The features most commonly considered to reduce the wildness of an area are people, buildings, roads and vehicles. After prompting, wind turbines and masts are also mentioned.

- When presented with pictures, forestry plantations, built footpaths and old buildings and vehicle tracks are not considered to have significant impact in reducing wildness, whereas masts, wind turbines, fish farm cages and deer fences are.

- Wild land is most commonly associated with woodlands and mountains, as well as with the highlands and islands.

Native wildlife and noticeable landscape features are also considered as contributing to positive wildness scores, whereas evidence of heavy management and farming are negative. Unsurprisingly, members of environmental organisations are more concerned about the future of Scottish wild land than the rest of the population, including people who live inside national park borders. The most supported actions for wild land conservation had to do with planning permissions for buildings, wind turbines and masts. Wild land designation was not a particularly popular choice of action, only suggested when prompted (Armstrong, 2012).

2.2.2. Wilderness and human health

The positive health effects of nature have become a significant part of the wilderness discourse. Nature visits and camping are increasingly used for rehabilitation purposes, especially for adolescents. It seems that regular contact with natural environments improves adolescent self-esteem particularly for females (Barton *et al.*, 2016), and wilderness therapy has positive effects on BMI, especially for overweight and obese adolescent males (Tucker *et al.*, 2015). Some studies suggest that biodiversity of a natural

environment seems to impact the wellbeing effect gained from natural space experiences (Clark *et al.*, 2014). However, how much the wildness and variety of an environments impacts the health effect is still under debate. While many studies suggest that access to natural environment increases self-reported wellbeing, studies examining the impact of aspects such as species richness and abundance on self-reported human health are inconclusive, partly because respondents' ability to accurately perceive the biodiversity in their environment varies (Pett *et al.*, 2016). It seems that having coastal access is an additional benefit on the wellbeing effect (Wheeler *et al.*, 2012; Bell *et al.*, 2015). These benefits can come both from actively seeking physical challenges, and a more passive and peaceful observation of the seascape (Bell *et al.*, 2015).

White *et al.* (2013) analyse the feelings of restoration after visits to either parks and open spaces in towns and cities, the countryside, seaside resorts and towns, or open coastline. According to their findings, urban green spaces are associated with significantly lower feelings of restoration than rural green spaces, whereas the coastal visits are associated with significantly higher. Specifically, compared to 'open countryside', recalled feelings of restoration were significantly lower in playgrounds and playing fields, but significantly higher for visits to hills/moors/mountains, woodlands/forests, beaches and 'other coast'. Thus although the coast effect observed in the broad category regression was replicated, not all urban green spaces (e.g. town parks) were less restorative than rural open countryside and there was clear differentiation in rural green spaces with country parks, for instance, being no different from open countryside while woods and hills were more restorative (White *et al.* 2013, pp.46–47). However, White *et al.* note that once the environmental types are analysed at a finer grained level, urban areas like town parks are seen as equally restorative as open countryside, while areas like playgrounds are associated with lower restoration. Woodlands and upland areas are experienced as restorative on a

comparable level to coastal areas. Low feeling of restoration in playgrounds is suggested to be due to the fact that the presence of children tends to reduce the level of restoration.

Fletcher (2016) is critical of the "nature-deficit disorder" concept, a modern condition which is believed to involve all manner of social problems and significant decrease in environmental awareness and care, and which is cured especially by environmental education. Fletcher criticises both the exacerbation of the nature-culture dichotomy, and the emphasis of individual responsibility rather than the political economy of ecological degradation. He quotes Gruenewald (2004, p. 79), who notes that environmental education 'often neglects the fundamental social and ecological conflicts inherent in the economic system' and consequently may give 'uncritical support to an individualistic, inequitable, and unsustainable growth economy', and Haluza-Delay (2013, p. 394), who notes that environmental education serves as 'an ineffectual band-aid on the wounds of the earth and its inhabitants'. Thus, cultural, economic, and political structures and forces must be addressed alongside providing connection with and knowledge of nature to individuals.

Research has also been done on nature therapy as a part of official treatment plans. Fernee *et al.* (2015) examine wilderness therapy in Scandinavia, noting that in the Scandinavian languages, the term generally used refers to "life in the open air". Meanwhile, in the South Pacific, the term wilderness implies "people-free", and therefore the term Bush Adventure Therapy is used, to acknowledge the indigenous presence. The article notes that adventure therapy is often used 'interchangeably with, or as an umbrella term for, wilderness therapy… [w]ilderness therapy and adventure therapy are not readily delineated' (Fernee *et al.*, 2015, p. 3). However they note that wilderness therapy 'primarily operates in remote wilderness settings', while adventure therapy 'can also be practiced indoors' (Fernee *et al.*, 2015, p. 3). The role of 'wilderness' is to provide a restorative environment, and basic

outdoor life that incorporates 'sequenced and intentional tasks and challenges' (Fernee *et al.* 2015, p.4).

 Sonntag-Öström *et al.* (2015) study the experiences of people with exhaustion disorder, who were offered eight different forest settings for rehabilitation sessions. The environments on offer were an open forest dominated by *Pinus sylvestris*, with a view over a lake with a broken shoreline, small forested headlands and no settlements in the neighbourhood, a rock outcrop with bare bedrock and scattered small *P. sylvestris* with a view over a mire, an open 65-year-old *P. sylvestris* forest, an uneven-aged, multi-layered forest with dense patches of forest mixed with open areas, an old, closed, even-aged *Picea abies* forest, a forest with a small creek running through a mixed semi-old forest, and two open mires dominated by *Sphagnum sp* and *Carex sp* with some small *P. sylvestris* and *Calluna vulgaris* (Sonntag-Öström *et al.,* 2015, pp.7–8). Among the 19 patients, most popular areas were the ones with good views, light, and openness, namely the forest by the lake, the rock outcrop, and the open old pine forest. These areas 'were felt to be undemanding, peaceful and stimulated the senses. Sometimes, when a snug and secure environment was desired, the darker spruce forest was chosen' (Sonntag-Öström *et al.,* 2015, p.14).

2.2.3. Wilderness in the context of marine conservation

Randall (2012) describes the concept of marine wilderness as 'keeping marine environments in a wild state and restoring the structure and function of marine' ecosystems under management plans designed to value wilderness character and benefits' (Randall, 2012, p. 21). She notes that a successful strategy must make a good case for marine wilderness economically, biologically and socially, emphasising that conserving natural ecosystems is less costly than regenerating them, that protecting marine wilderness

nurtures recovery and provides resilience to ecological damage, and it can prevent the loss of environments and species that have cultural importance and/or provide protein and medicinal cures (Randall, 2012, p. 21). For a successful strategy, she suggests:

- Presenting evidence of the environmental decline of the marine environment in descending order of how wilderness areas could address the problems;

- Making a case that recognises the role of marine wilderness in repairing and sustaining the food web;

- Identifying appropriate areas for marine wilderness where socioeconomic impacts of the environmental decline can be counteracted and called to attention;

- Showcasing the recreational value;

- Using marine wilderness as a baseline and 'a natural laboratory' for studying the effects of climate change, and;

- Making the economic case for protecting marine wilderness (Randall, 2012, p. 22).

In the United States, the National Oceanic and Atmospheric Administration (NOAA) has been one advocate of marine wilderness. Barr (2001) discusses the concept of marine wilderness in the American context. He quotes the text of Roderick Nash, who described wilderness as 'at once inhospitable, alien, mysterious, and threatening, as well as beautiful, friendly, and capable of elevating and delighting us' (Barr, 2001, p. 233), and considers the term to be a rather apt description of the ocean environment. At the same time, he notes that the oceans are not 'untrammelled by man', as the wilderness is described in The Wilderness Act of 1964 (cf. chapter 2.2.1. of this text). Coastal waters in particular are affected by oil and gas development, fishing, and wastewater outfalls, and transportation and other traffic make human presence visible across the oceans, as does the accumulating rubbish (Barr, 2001, p. 233). Studying sites that have been declared as marine or ocean wilderness in the U.S., Barr observes that the benchmarks currently used to define marine

wilderness include outstanding resources, identified threats – including dangerous fauna – remote, beautiful seascapes, important habitat for endangered species, and significance to cultural heritage. Such features are not very different to those generally considered to be the benchmarks of terrestrial wilderness. Barr also suggests that as the debris in marine environments is usually transported over great distances, it is comparable to atmospheric contaminants in terrestrial wilderness, rather than something that excludes an area from the wilderness definition. Additionally, he notes that marine wilderness faces the same issue as terrestrial wilderness: so few areas globally are 'untrammelled' that a relative scale of pristine needs to be adapted, yet without being too lenient. He suggests using areas 'as free of human influences as possible' (Barr 2001, p.235) as the top of that scale, and notes that for the preservation of marine wilderness, technical ability and political will are needed as much as pristine conditions. The marine wilderness is protected by the fact that unlike terrestrial wilderness, it cannot be inhabited even by the most determined individual, but Barr notes that too large a number of visitations by cruise boats can also be degrading for the wilderness character.

Rufe (2001) discusses the Ocean Wilderness Challenge, developed by The Ocean Conservancy (TOC) in the United States. The aim of the challenge is to achieve wilderness protection for 5% of U.S. waters, as well as educate the public. Rufe ties the desire to protect ocean wilderness to the increased understanding about the oceans and their role in human life, as well as the human footprint left on them. In addition, he suggests that there is a psychological importance to protecting the untouched ocean.

Rufe discusses the six sites identified by TOC, describing why they have values as wilderness. Prince William Sound in Alaska, Channel Islands in California, Glacier Bay in Alaska, Northwestern Hawaiian Islands in Hawaii, Dry Tortugas in Florida, and San

Andrés Archipelago in Colombia are all considered to be both ecologically important and increasingly vulnerable. Prince William Sound and Glacier Bay are particularly mentioned as suffering from increased tourism development, and the former was also badly affected by the 1989 Exxon *Valdez* oil spill. The Channel Islands, the Dry Tortugas, and the San Andrés Archipelago are suffering from fishing pressure, while the Northwestern Hawaiian Islands are home to the endangered Hawaiian monk seal, which is threatened by the waterborne fishing gear and other debris brought in by the currents. Consequently, in TOC's classification, vulnerability of the habitat seems to be an important benchmark of marine wilderness. Their Challenge also emphasizes the importance of education, but Rufe does not go into detail about how to address this parameter.

Sloan (2002) also discusses the increasing awareness of harmful human effect on the oceans, and suggests that there is a growing need for definitions in marine conservation terminology. He points out the connection between a no-take zone and marine wilderness, and discusses the mitigations made in terrestrial wilderness protection, such as seeing visitors, fishing, and in some areas even hunting as consistent with the wilderness philosophy, and the importance of recreational use to the public support for wilderness. He also lists some existing published definitions of marine wilderness, including The American Fisheries Society's definition:

> A unique or representative ecosystem or subset with geographically defined boundaries that is set aside, or 'protected' for non-consumptive usage (Bohnsack *et al.* 1989 according to Sloan, 2002, p. 296).

The 4th World Wilderness Congress' version:

. . .marine areas where little or no evidence of human intrusion is present or permitted, so that natural processes will take place unaffected by human intervention (Kelleher & Kenchington 1991 according to Sloan, 2002, p. 296).

And Davis' (1999):

. . .areas of the sea where human influences are minimized and no extractive uses are allowed. . . . (Sloan 2002, p. 296.)

Sloan also quotes a study on user perceptions of marine wilderness by Shafer and Benzaken (1998), which found that:

80% of park visitors canvassed believed that "wilderness" existed above and below the water. Visitors valued a lack of visual and audible human presence (solitude) and unique natural features (scenery) above all other criteria, including ecosystem-based attributes (Sloan 2002, p. 296.).

Sloan credits the U.S. National Park Service of first linking the idea of wilderness to marine conservation in the 1950s. However, he notes their mistake of not acknowledging the traditional marine protection practices of the indigenous peoples, which are now increasingly taken into account. He discusses the development of marine environmental ethics into the "resource conservation ethic" (RCE), which relies on both natural and social sciences, and in which modern fisheries management is steeped. This type of fisheries management has, however, failed, as the single-species approach has not managed to address the fisheries' effect on wider ecosystems, and it is now contested by the "preservation ethic" of NGOs and national parks (Sloan, 2002). However, Sloan notes that such a strict approach to marine conservation is likely to be fiercely opposed by the

fisheries sector. Consequently, he emphasizes the need for both better understanding of the marine ecosystem and better-defined ethical foundation in marine conservation, noting that inadequate social science is particularly a shortcoming, in comparison to the much larger contribution of natural science.

Ramirez-Llorda *et al.* (2011) discuss the biological impacts humans have on the deep sea. They note that proof of animals living at all depths of the ocean only surfaced during the *Galathea* expedition of 1950-1952, and the truth about the deep sea as an extremely biologically diverse habitat with particularly high biodiversity was only discovered after the signing of UNCLOS. As a result, the deep sea has been viewed both as a convenient waste disposal site, and a source of potential wealth with no national jurisdiction. Waste dumping has a long history, with the new steam ships of the late 18th century (and onwards) dumping their clinker over the side. Ramirez-Llorda *et al.* (2011) note that despite the London Convention banning waste dumping from ships:

> [t]he amount of litter dumped in the oceans from vessels each year is estimated to exceed 636,000 tonnes. At present, litter continues to accumulate, through illegal disposal of litter from ships and lost or discarded fishing gear, as well being advected from the coast and river discharges. Approximately 6.4 million tonnes per year of litter are dumped into the oceans, part of which sinks to bathyal and abyssal depths (Ramirez-Llodra *et al.*, 2011).

Ships transporting livestock may also dump dead animals into the sea, creating a large pulse of organic material. Pharmaceuticals enter the water through careless disposal and as human excreta. The organisms and sediments in the deep sea act as global sink for different persistent contaminants, which may be re-released to water columns and food

chains through human influence, such as mining, drilling and trawling (Ramirez-Llodra *et al. 2011)*.

2.2.4. Summary

The concept of *wilderness* has a long history in the European cultures, reflecting the overall changes in our philosophy and way of life. From an American specialty it has become something embraced by almost the entire "western" culture, as people are more and more aware of the human-induced threats to the environment. More recently, the wilderness philosophy has also been criticised for setting unrealistic, counterproductive standards, and excluding the indigenous peoples.

Despite all the definitions produced by various organisations, and the political and economic interest towards wilderness, the term and its use seem to remain somewhat contentious in both terrestrial and marine environments. The cultural and natural conceptualisations still tend to get confused in conservation dialogue, and the definitions are only starting to be tested in practice. Very few still think like Worster (2014), that wilderness is an ultimate sign of human selflessness, or that it could - let alone should - be conserved purely for its own sake, with no regard for people. Currently most people acknowledge the need to recognise the role of inhabitants – often indigenous peoples – in "wild" areas, as their knowledge of and right to the land. At the same time, there is a lot of interest towards the health and healing properties of natural and wilderness areas, and their use for rehabilitation purposes.

In marine environments the situation is even less clear, as the marine environment is so much more unfamiliar to humankind, and much more difficult to define, study, and control. Additionally, the terrestrial areas that are designated as wilderness tend to be

under relatively little human use to begin with, while potential marine wilderness sites may be used actively for fishing, transport, and other purposes, creating potential for clashes and misuse. Therefore, to avoid and mitigate management conflicts, it is important to be aware of the different interpretations held by a given community, and implied in a given legislation. For that purpose, this research will examine the different *wilderness* interpretations in Scotland and the EU, to unearth the potential incongruities and their implications for management.

2.3. Participatory management

2.3.1. Application of participatory management and stakeholder involvement in protected area conservation

The concept of participatory management in protected area management is born from the human-wilderness conflict discussed above. According to Pimbert and Pretty (1995), the dominant ideology of conservation has been too strongly dominated by positivism and rationalism, excluding people under the assumption that they are bad for wild resources, and even removing people from their homelands. They argue that this goes against the growing evidence of local people positively influencing biodiversity of their local systems. Thus, the challenge is 'to find ways of putting people back into conservation' (Pimbert and Pretty, 1995, p. 2). Similarly, Kapoor (2001) criticises the mainstream approach to environmental management for implementing a very narrow view of 'environment', by hierarchical bureaucracies excluding public participation and input, and relying on a 'orthodox' scientific paradigm that 'neglects the long-term environmental and social consequences of the unfettered exploitation of nature' (Kapoor, 2001, p. 269).

Pimbert and Pretty also criticize conservationists for transferring problems present in industrial countries, such as soil erosion, desertification, and loss of wildlife, and the

models of intervention developed to prevent those problems, into completely different contexts with little regard for the local situation. This often makes degradation only more likely to occur, and leads to local people blaming the government for the natural occurrences. An example case describes "careless construction of contour banks, terraces and ridges" to avoid the Dust Bowl of the early 1930s from repeating itself in Africa and Asia. Contrary to the intention, these constructions were susceptible to breaching, leading the local people to believe that "gully erosion was caused by the government" (Pimbert and Pretty, 1995, p. 6).

For an alternative to the positivist paradigms, Pimbert and Pretty list the following principles:

- Sustainability as a context cannot be precisely defined, and thus sustainable development cannot be a specific strategy.

- Problems are always open to interpretation, and there is no single 'correct' understanding. Thus management must seek multiple perspectives by ensuring the wide involvement of different actors.

- Problems are endemic, and resolution of one leads to the production of another. There will always be uncertainties, so courses of action cannot become fixed.

- The capacity of actors to continually learn about the changing conditions becomes a vital feature, as well as making uncertainties explicit and encouraging public debate.

- Systems of interaction and learning are required to take all the perspectives of the stakeholders into account, and their involvement is required for any change to be effected (adapted from Pimbert and Pretty, 1995, pp. 23–24).

Pimbert and Pretty also note that even though participation has become fashionable in natural resource management, it is still strictly limited and controlled in protected area management, particularly in strictly protected areas, such as National Parks and strict Wilderness Reserves. Consequently, there are different types of participation, not all of which are beneficial for the goals of conservation. These different types are presented in table 2.2.

Kapoor (2001) also notes that the trend of adopting participation does not mean that its practical realisation is easy. He notes that many institutions and groups tend to adopt participatory approaches only in part, or only in certain stages. He suggests that reasons for this include the heavy commitment of resources required in the participatory approach, as well as institutional 'reticence to be meaningful', and the reluctance to face the changes in organisational culture required by the full implementation of participatory approach (Kapoor 2001, p. 273).

Typology	Components of each type
1. Passive Participation	People participate by being told what is going to happen or has already happened. It is unilateral announcement by an administration or project management without any listening to people's responses. The information being shared belongs only to external professionals.
2. Participation in Information Giving	People participate by answering questions posed by extractive researchers and project managers using questionnaire surveys or similar approaches. People do not have the opportunity to influence proceedings, as the findings of the research or project design are neither shared nor checked for accuracy.
3. Participation by Consultation	People participate by being consulted, and external agents listen to views. These external agents define both problems and solutions, and may modify these in the light of people's

	responses. Such a consultative process does not concede any share in decision-making and professionals are under no obligation to take on board peoples' views.
4. Participation for Material Incentives	People participate by providing resources, for example labour, in return for food, cash or other material incentives. Much in-situ research and bioprospecting falls in this category, as rural people provide the fields but are not involved in the experimentation or the process of learning. It is very common to see this called participation, yet people have no stake in prolonging activities when the incentives end.
5. Functional Participation	People participate by forming groups to meet predetermined objectives related to the project, which can involve the development or promotion of externally initiated social organization. Such involvement does not tend to be at early stages of project cycles or planning, but rather after major decisions have been made. These institutions tend to be dependent on external initiators and facilitators, but may become self- dependent.
6. Interactive Participation	People participate in joint analysis, which leads to action plans and the formation of new local groups or the strengthening of existing ones. It tends to involve interdisciplinary methodologies that seek multiple perspectives and make use of systematic and structured learning processes. These groups take control over local decisions, and so people have a stake in maintaining structures or practices.
7. Self- Mobilization	People participate by taking initiatives independent of external institutions to change systems. Such self-initiated mobilization and collective action may or may not challenge existing inequitable distributions of wealth and power.

Table 2.2 A typology of participation according to Pimbert and Pretty 1995 (pp. 30-31)

McNeely (1994) also notes the importance of involving stakeholders and local people in management in order to legitimise the management decisions, support local communities, and benefit from local knowledge. He also emphasises the need of a 'vigorous international programme', built from the ground up and including both NGOs and

individuals, to effectively involve the public. Brown (2003) echoes the need to take into account traditional local ecological knowledge, and to combine it with external and scientific knowledge to develop appropriate management systems across culturally and biologically different systems. According to Brown (2003), management must give up passive and coercive forms of participation, and transform the decision-making processes in a more fundamental way, into proper, inclusive social interaction and debate. Institutions must be innovative, flexible, and facilitating, rather than apply constraints to behaviour.

Tranel and Hall (2003) also discuss the problems conflicting values present in protected area management. They note that as values, connections to a place, and the consequent emotional responses are intangible and difficult to quantify, there has been tendency to ignore them, but people are becoming more involved and organized. Thus having means to address such conflicts can make the managers' life significantly easier. Brockington and Smith-Soltau (2004) in turn note that it has been suggested that protected areas actually increase rural poverty. In addition to avoiding resistance and lack of cooperation, and assisting conservation of those biodiversity hotspots not yet adequately covered, there are ethical reasons for poverty reduction and biodiversity protection policies not to ignore each other's needs. It is also unhelpful to antagonize human rights and cultural survival groups. In addition, conservation could and should be used as a poverty reduction tool, with Protected Areas, if their impact is well understood, having the capacity to have many positive benefits for the communities (Brockington and Smith-Soltau, 2004). Marega and Urataric (2011) note that mutual trust between stakeholders is one of the key requirements in balancing societal, environmental and economic potentials of an area. To achieve this, stakeholders need to communicate both with the decision-makers and each other. Additionally, they note that only involving stakeholders at the late stage of the decision-

making process, or when decisions have already been made, is more harmful than not involving them at all, as it can create feelings of manipulation and distrust.

2.3.2. Participatory management in Marine Protected Areas

Participatory management in MPAs has largely been examined through case studies. Studies around the world suggest that there continues to be a gap between both expectations and interpretations of results of stakeholders and management. Elliott *et al*. (2001) study participatory management in Wakatobi National Park, Indonesia, an area which is relatively poor, and where the land unsuitable for agriculture, which means that the local communities rely on the marine resources. While supportive of the basic idea of conserving and preserving marine resources, and willing to act as caretakers and protectors of marine resources, community members explicitly state that conservation should not further restrict their source of livelihood. In general, the attitudes towards the park are negative and pessimistic, and the locals note that they have not been properly informed about the park and its purpose. Elliott *et al*. suggest that by increasing the community participation and the transparency of information, and by focusing on the common objectives, management plans can be developed that address both the needs of conservation and the community.

Frontani (2006) examines two MPAs, one in Kenya and one in Florida, U.S., set up to protect coral reefs in busy coastal zones. The areas were established top-down in the late 1980s, and after years of non-management, switched to a participatory management approach in the mid-1990s. Within a few years, both of these parks were 'praised by environmental groups and park staff as participatory management initiatives which resulted in reduced anthropomorphic disturbance, enhanced fish stocks, and/or increased coral cover' (Frontani, 2006, p. 17). However, in both areas the local residents ended up

rebelling against them. In Florida, the residents were not convinced that an MPA would be a good way to protect the coral reef. The most agreed-upon concerns were related to poor water quality, the need for sewage treatment, and pollution from South Florida, and it was believed that a marine sanctuary would create another, useless layer of bureaucracy in the region, especially considering that the aforementioned issues were already being addressed by more than 30 non-profits and agencies. As the majority of the people voted against the sanctuary, the results were ignored by the decision-makers. Likewise in Kenya, the resistance by fishers and fish traders led to the reduction of the no-take zone. However, it turned out that the resistance was anticipated, and the original boundary of the park exaggerated to allow for the reduction. This deception has strained the fisher-reserve relations, and has led to illegal fishing. The reasons for the fishers' dissatisfaction are said to be inadequate compensation, poverty, and slowness in creating an inclusive advisory board. Park officials suggest that the fishers do not understand the MPA's benefits or regulations. Frontani notes the following concerns the two resident groups have in common:

- Potential negative economic impact

- Perceived ill treatment by government and park management

- Ineffective institutional arrangements

- Problem of declining water quality in the region, which was not addressed by the MPA

- Declines in fisheries and marine habitats (Adapted from Frontani, 2006, pp. 21–22.)

Frontani notes that while more powerful interests, such as NGO's and tourist companies, often win out over the local residents and groups, these victories tend to come with high costs afterwards, as the mistreated locals refuse to yield to the regulations and the memory

of unfair treatment is long. Thus marine management agencies must collaborate and cooperate more especially with fishers, whose livelihood may be threatened by the MPA. Both financial compensation and proper inclusion in decision-making processes must be secured to prevent illegal fishing.

Himes (2007) discusses the use of stakeholder preferences and viewpoints as MPA performance indicators, analysing the socio-economic impact of an MPA on local stakeholders and their preferences in the Mediterranean. She notes that the research site, Egadi Islands Marine Reserve (EIMR) on the coast of Sicily, is largely considered to be a failure by the stakeholders. With practically no enforcement, resources are constantly degraded. The lack of consultation decreases the fishers' confidence in the management and increases the residents' frustration. Researchers are disappointed in the lack of biomass and ecosystem improvement, and managers feel they are not given enough resources. Himes discusses the 'triangle of paradigms' (originally proposed by Charles, 1992) of stakeholder conflict, describing the three clashing viewpoints of resource management. These are 1) stock conservation and habitat protection, 2) well-being of society and equity, and 3) economic efficiency and maximizing economic rent. While Charles' framework is somewhat simplistic, resource management perceptions tend to represent a combination of these paradigms. Himes (2007) notes that the complexity of views held by all stakeholder groups needs to be taken into account in decision-making to avoid failures such as the one experienced at the EIMR. Participation is also a way to facilitate stakeholder acceptance of the MPA. However, as different stakeholder groups have different definitions of "success", it will in any case remain a somewhat elusive target.

Jones (2008) examines the views of the fishing industry towards no-take marine protected areas (NTMPAs) in the UK. He interviews demersal and pelagic sector fishermen, representatives of fisheries-related organisations, producer organisations, and enforcement officers. He notes a strong sense of proprietorship over the sea among the fishers:

> "[T]he seas are for fishing and for fishermen to fish, so why have nature conservation objective… the sea is the fishermen's heritage, that's all we've got and you can't take it away… nobody is there to appreciate it and the seas are so dynamic I don't see that this nature conservation approach is valid…" (Jones, 2008, p. 752.)

Many respondents considered that fishing improves the stock productivity and prevents stagnation. Some fishers compared themselves to farmers, suggesting that a demersal trawler acts like a plough, turning the ground over to improve productivity and remove 'vermin' (non-target species such as anemones and starfish). Others noted that such arguments are signs of defensiveness, and are hardly true because trawlers tend to constantly move towards new, untouched areas, rather than attempt to benefit from this new and improved seabed. Many of the respondents emphasized the need for objective, science-based decisions and justifications for NTMPA's, rather than precautionary or subjective ecological reasons. One interviewee suggested that having pots and traps in place is in fact a more effective way to exclude trawlers than establishing an NTMPA. Overall, only 23% respondents considered NTMPA's to be the way forward. 89% of the interviewees also noted that learning about spillovers or other benefits in other countries would not change their opinions, as demographic, political, ecological, and other differences make such benefits non-transferable.

Mangi and Austen (2008) study MPA stakeholders' perceptions of objectives and zoning in southern Europe. They suggest that fragmentation of responsibility has been one of the reasons why managing MPAs has largely been unsuccessful, and that overlapping interests of the stakeholders provide management solutions that are only partial and often uncoordinated. In addition, such differing interests can easily create rather than solve problems. Thus, a framework is needed to unite the common goals. They note that in their research site, all stakeholders considered conservation and fisheries management to be the core objectives, while tourism development, education and research are secondary objectives. Fishers prioritise fisheries management before conservation, while all other stakeholder groups prioritise conservation first. The fishers' belief of the potential of MPAs to deliver fisheries management objectives declines over time. Generally, stakeholders support zoning of MPAs for different purposes (conservational, commercial fishing, and recreation). Mangi and Austen note that while the stakeholder perceptions differ strongly in the region, evidence suggests that MPAs have enhanced fish density. That would suggest that benefits can be achieved even without shared attitudes. To avoid compliance and enforcement costs and issues, fishers should be made more aware of the achieved benefits. In any case, polarized perspectives should not impede MPA establishment and management.

2.3.3. Summary

Most participatory management literature concentrates on developing countries, highlighting the conflict between the indigenous people and the majority population, or Western figures and institutions. However, Frontani's (2006) research suggests that the potential conflicts arising from the lack of participation are very similar in developed and developing countries. The importance of combining social sciences with natural sciences is

highlighted in multiple studies, in order to understand both the stakeholders' views and the impacts the management plans will have on them.

Jones' (2008) research on the fishers' views in the UK is somewhat alarming, suggesting an antagonistic relationship between fishers and conservation managers. As the fishing industry has a large impact on the marine environment, their cooperation and support are critical for both conservation and marine resources management. Fishers' sense of ownership over the sea, and the desire for objective, science-based decisions, need to be taken into account in the often value-laden discussion on marine protection. There can also be significant attitudinal differences between stakeholder groups, affecting their interest in being involved and attitudes towards management, and significant differences in how stakeholders see the human impact on environment.

While the proper execution of participatory management is complicated, as it requires navigating different and often contradictory interests, and dealing with intangible and unquantifiable values and emotions, it is considered to be not only the ethical approach, but also a way to manage and avoid conflict and insubordination. Mutual trust between stakeholders and management seems to be the most important factor in avoiding or mitigating most conflicts. Perceived unfair treatment can have long-lasting negative impacts on the cooperation between stakeholders and management. Therefore it is important to understand both the interpretations stakeholders have of the concepts and terminology used in management decisions, and how the stakeholders feel about their treatment when the management decisions are put into practice. This research will study both factors, to examine what the situation in Scotland is at the moment, and what estimations can be made on potential developments.

2.4. Status and legislation of marine and coastal conservation in Scotland

2.4.1. Participatory management and recreational use in legal texts

This section examines the relevant legislation in the UK, and what it says about the role and rights of stakeholders. Both marine and terrestrial legislation is examined, as a significant number of the protected areas are on the coast, and some of the different types of protected areas specified in the pieces of legislation can be applied to both terrestrial and marine environment (see Chapter 2.4.2. for more detail).

The Conservation (Natural Habitats, &c.) Regulations 1994 (SI 1994/2716) sets down rules for establishing habitat protection sites (European sites), for the purpose of implementing the EU Habitats Directive (Council Directive 92/43/EEC) in the UK. According to the regulation, the designation is in the hands of the Secretary of State. The Secretary is responsible for notifying the appropriate nature conservation body after the designation, and they in turn are responsible for notifying the owners and occupiers of land within the site, the local planning authority, and possibly other persons or bodies if directed so by the Secretary of State. The nature conservation body may enter into a management agreement with the owners and occupier of the land in the site or adjacent to it, for management, conservation, restoration or protection purposes. The management agreement may impose restrictions on the exercise of rights over the land by the persons bound by the agreement, and it may contain provisions for compensation for such restrictions. Any person:

> "having at the time of the making of the order an interest in land comprised in an
>
> agricultural unit comprising land to which the order relates who, on a claim made to the
>
> appropriate nature conservation body within the time and in the manner prescribed by

regulations shows that the value of his interest is less than it would have been if the order had not been made"

is entitled to compensation (SI 1994/2716, Art.25). Areas may also be designated for a European marine site. When assessing the implications for the site in view of its conservation objectives, the authorities shall take the opinion of the general public into consideration if they consider it appropriate. However, the public interest, including social and economic issues, can be overridden for reasons relating to:

- human health

- public safety

- beneficial consequences of primary importance to the environment, or

- other reasons which in the opinion of the European Commission are imperative reasons of overriding public interest (SI 1994/2716, Art.49).

In such a case, compensatory measures may be taken.

The Nature Conservation (Scotland) Act of 2004 (2004 asp 6) sets down rules for establishing Sites of Special Scientific Interest (SSSI) in Scotland. The power of designation is in the hands of Scottish Natural Heritage (SNH), which must notify owners and occupiers of the land in question, local authorities, community councils, relevant statutory undertakers and regulatory authorities, and other community bodies and persons who appear to have an interest in the area. The notification must include a management statement, providing guidance for conserving the site's special features, and it may include information promoting public's understanding and enjoyment of those features. It should also specify which operations on the site require land owners' and occupiers' consent, and what land owners' and occupiers' operations require consent from SNH. The owners and occupiers of the land on site may request a review of the management statement. If the

management agreement fails to enter into agreement, SNH may propose a land management order to the Scottish Ministers. If necessary, SNH may acquire the land by agreement or compulsorily with the authorization of the Ministers.

The Offshore Marine Conservation (Natural Habitats, &c.) Regulations, 2007 (SI 2007/1842) extends the designation of European sites to offshore areas. The rules are largely comparable to those laid down in SI 1994/2716. Persons likely to be affected by the area designations are to be notified prior to the designation, and they may be given an opportunity to present their views to the Secretary of State about the site designation. In establishing management schemes, the competent authority may consult any persons they 'consider appropriate'. The conditions for overriding public interest are similar to those in the 1994 regulation. The Secretary of State is obligated to encourage research, and the Joint Nature Conservation Committee to promote public awareness of the need to protect and conserve species and habitats in the offshore marine areas.

The Marine and Coastal Access Act 2009 creates the Marine Management Organisation to oversee and contribute to sustainable use and development of the UK marine area. In Scotland, it covers the offshore region. The authorities for establishing marine conservation zones (MCZ) are the Scottish Ministers, who however may not designate a MCZ without the Secretary of State's agreement. (The Marine and Coastal Access Act 2009, Art.5) Scottish MCZs are to be known as marine protected areas (MPAs). Any affected parties must be notified of a designation, and any affected or interested persons must be consulted, except in urgent cases. The designated areas, alongside SSSIs, European marine sites, and Ramsar sites, are to form a network, which:

- contributes to the conservation or improvement of the marine environment in the UK marine area,

- includes features which are protected by the sites comprised in the network represent the range of features present in the UK marine area, and

- reflects the fact that the conservation of a feature may require the designation of more than one site (The Marine and Coastal Access Act 2009 Art.123).

Public authorities are to cooperate with the conservation objectives, informing the statutory bodies of any action that might affect the protected features of the area.

The Marine (Scotland) Act 2010 (2010 asp 5), covering all functions and activities in the Scottish marine area, is based on the principle of sustainable development, 'including the protection and, where appropriate, enhancement of the health of [the Scottish marine] area' (2010 asp 5, Art.3). Regarding functions relating to regional marine plans, the Act states that a delegate may be designated, comprising of a person nominated by the Ministers, a public authority, and/or a person nominated by a public authority with an interest in the region. If delegable functions are designated to a group of persons, the group should comprise of representatives of persons with an interest in the protection and enhancement of the marine region, the use of the region for recreational purposes, and the use of the region for commercial purposes. A public authority exercising its own functions regarding a regional plan must also consult these representatives. Ministers' directions on regional marine plans must be published in a manner considered to most likely bring it to the attention of persons interested in or affected by the direction.

Whenever preparing either a regional or a national marine plan, the Ministers must publish a statement of public participation (SPP). Such statement explains when the consultation is likely take place, how it will be executed, and who will be consulted. It must be published in a way most likely to bring it to the interest of relevant persons. An SPP must also

include a proposed timetable for the consultation, drafting, and adoption for the marine plan.

The Ministers may designate an area by a designation order as a Nature Conservation MPA, a Demonstration and Research MPA, or a Historic MPA. A designated area should be suitable for conserving marine flora or fauna, marine habitat or habitat types, or features of geological or geomorphological interest. A Nature Conservation MPA may include an area of seashore above the mean high water spring tide, assuming that the relevant designation features are also present in the seashore, the preserved flora or fauna are dependent on the seashore area, or excluding the seashore would make the identification of the MPA boundaries or exercising related functions impracticable or impossible. In designating a Nature Conservation MPA, the Ministers may, among other things, 'have regard to any social or economic consequences of designation' (Marine (Scotland) Act 2010, Art.68). Before a designation order, a notice about the proposal must be published and persons likely to be interested or affected must be consulted. "An urgent designation" can be made for a time period up to 2 years without consultation or publication. The Act also contains a specific requirement of establishing Nature Conservation MPAs that form a network with each other and/or conservation sites in the UK marine area. Scottish Natural Heritage (SNH) is entitled to give advice and guidance on Nature Conservation and Demonstration and Research MPAs, both in terms of establishment and management. MPA management schemes may be established by relevant authorities, with consultation of SNH.

2.4.2. The new MPA network of Scotland

This section provides information on the current project to expand the MPA network in Scotland, and the stakeholder consultation process involved. The purpose is to present a current context for the themes of this research.

The Report to the Scottish Parliament on Progress to Identify a Scottish Network of Marine Protected Areas (2012) presents the current status of MPAs in Scotland, as required by the Marine (Scotland) Act 2010 (Article 103). It sums up the existing 45 Special Protected Areas (SPAs), 46 Special Areas of Conservation (SACs), and 61 Sites of Specific Scientific Interest (SSSIs), as well as 8 fisheries management areas in the Scottish seas. It addition, it presents a plan for identifying new Nature Conservation MPAs, for preserving features that are either threatened or unique to Scotland. One of the aims of the report is to gather all the differently categorised sites offering spatial protection to species, habitats, and/or geology under the common term MPA, and into an ecologically coherent MPA network. The report also notes the marine areas' importance to people:

> Scotland's coasts and seas also preserve a rich cultural heritage dating from early prehistory… The marine cultural heritage helps us to appreciate the importance of our coasts and seas throughout Scotland's history, contributes to our sense of place and wellbeing, enhances the distinctiveness of coastal areas and helps attract visitors to Scotland (Marine Scotland, 2012, p. 7).

The report identifies 33 possible Nature Conservation MPAs, as well as 4 locations that remain to be assessed. Added to the existing protected areas, the total of Scottish MPAs would cover over 20% of the Scottish sea area. The main partners are Marine Scotland, Scottish Natural Heritage, Scottish Environment Protection Agency (SEPA), The Joint

Nature Conservation Committee (JNCC), and Historic Scotland (HS) (Marine Scotland, 2012, p. 11). The selection of the areas is based on the commitments under The Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR), the EU Marine Strategy Framework Directive, The World Summit on Sustainable Development, and the Convention on Biological Diversity. For the Nature Conservation MPAs, science-led approach has been taken to their identification, with social and economic consequences taken into consideration when choosing between two sites of equal ecological value (Marine Scotland, 2012, pp. 16–18).

The management of MPAs is based on the five following principles:

- Management of MPAs should be integrated with wider marine management. By providing the framework within which all marine management will occur, marine planning will help ensure better integration between the needs of Nature Conservation MPAs and those of surrounding areas.

- In most situations, existing sectoral measures (such as fishery management measures) or marine planning are expected to be sufficient. Additional powers such as Marine Conservation Orders will be available where necessary to support management of activities affecting MPAs.

- The best available scientific information will be used to select and manage Nature Conservation MPAs. Lack of scientific certainty should not be used as a reason for postponing MPA selection or taking action where there is a threat of damage to areas in the network.

- As our understanding improves, and/or the environment changes, there may be a need to select additional new Nature Conservation MPAs, alter boundaries, and/or remove designations particularly in the longer term in response to climate change.

- Nature Conservation MPAs will be subject to a range of protection levels, depending on the conservation objectives, management requirements of the MPA, protected features for which they are designated and socio-economic factors. There will be an assumption of multiple-use of a site. However, activities which are not compatible with the conservation objectives of a Nature Conservation MPA, will be restricted (Marine Scotland, 2012, p. 19).

Stakeholders will be involved in location selection, determining conservation objectives, and site management, through bilateral meetings, workshops, and formal consultations, with the level of involvement decided on case-by-case basis. The management process will allow stakeholders to present their views and practical environmental knowledge. Utilising stakeholder's evidence and knowledge is tied to the principle of best available evidence.

An open consultation on the prospective MPAs took place from 25th of July to 13th November 2013 (Scottish Natural Heritage, 2013a). Before that, five stakeholder workshops focusing on national and international organisations and marine specialists with interest in conservation were held between March 2011 and June 2012 (The Scottish Government, no date b). A fisheries displacement study was also conducted (The Scottish Government, no date a). Yet, after the designation process completed in 2014, there has been heavy criticism from the fishing industry, who feel that while they were seemingly consulted, their responses and opinions were largely ignored, and they were given false information during the consultation process (Scottish Fishermen's Federation, 2015a, 2015b).

2.4.3. Summary

The legislation makes it clear that stakeholders should be informed and consulted in MPA designation. How the consultation should be taken into account is however not detailed. Additionally, there are a fair amount of exceptions when the public interest can be overridden, including urgent cases and anything that "in opinion of the European Commission is an imperative reason". Compensatory measures may be taken in the case of restrictions of stakeholder activities.

The MPA network process is going through various types of stakeholder involvement. The importance of the marine and coastal landscape to Scottish culture and identity is noted in the 2012 report(Marine Scotland, 2012). Fisheries issues have been addressed through both stakeholder consultations and the fisheries displacement study. Yet the fishing industry has been extremely disappointed in the results, feeling that they were treated unfairly and that the measures went beyond the original purpose of the project. This reflects the point made by several researchers in the participatory management papers (see section 2.3): participation-as-lip-service – or perceived as lip service – can cause as much damage as no participation at all.

2.5. Summary of literature

The discussion on *wilderness* has for some time acknowledged that the concept is not straightforward, and that several contrary and incompatible interpretations exist. However, the majority of the literature has focused on the biocentric/anthropocentric dichotomy, ignoring the differences within those two perspectives. The discussion is also largely internal, focusing on how those who write about wilderness write about wilderness. There is less focus on the public discussion, or the actual use of the concept in policy and law. A lot of the participatory management research, while more practice-oriented, focuses on

developing countries. The research is often case study based and retrospective, focusing on the reactions of the stakeholders. In the following chapters the study will attempt to go deeper into the different wilderness interpretations, and to understand what impact they might have on management. The study will also take a look at the stakeholder view at large, in Scotland where the public is generally well educated and has access to both decision makers and media to influence the decision making process.

3. THEORETICAL BACKGROUND AND METHODOLOGY

3.1. Introduction

This chapter describes the theoretical background and methodology applied to the research for all phases of data collection and analysis. Section 3.2. discusses the theoretical background of methodology and data analysis used. Section 3.3. discusses the main methods, and the reasons behind them, and section 3.4. discusses the scale, limitations, and ethical issues of the research, as well as the researcher bias.

3.2. Theoretical background

Through examining the perceptions and values related to the *wilderness* concept, and how they affect management, this thesis aims to contribute to the broader discussion on the necessity to take human values and views into account in environmental, particularly marine, decision making. As discussed in the literature review, the inclusion of the human aspect is often seen as the ethical choice, but it also appears to be beneficial for the wider conservation ideals, helping to gain the support of the citizens. It is also difficult to avoid the effect of people's opinions in practical management situations. Thus, there is a need to engage the people in an official fashion, and especially through education, to encourage them to take active interest in the marine environment and the related management processes, and through participation, to give them a legitimate say and stake on the related matters. For a smooth inclusion, the human aspect needs to be taken into account also at the highest national and supranational legislative levels.

3.2.1. Theories on the human aspect in environmental management

Several theories have discussed the inclusion of the human aspect in environmental management and science. This subsection takes a look at some of those theories, particularly those that tie into marine management.

3.2.1.1 Post-normal science

The concept of post-normal science was originally developed by Silvio O. Funtowicz and Jerome R. Ravetz. They introduce post-normal science as a natural evolvement step in the current point in history, as science is 'now called on to remedy the pathologies of the global industrial system of which it forms the basis' (Funtowicz & Ravetz, 1993, p. 739). According to them, the traditionally reductionist and analytical approach is replaced by a worldview that takes in to account the synthetic and humanistic approach, and acknowledges the unpredictability and plurality of the issues at hand. Funtowicz and Ravetz draw the name from T. S. Kuhn (1962), who uses the term 'normal science' to refer to the 'unexciting, indeed anti-intellectual routine puzzle solving', which does not take values or foundational problems into account (Funtowicz and Ravetz, 1993, p. 740).

According to Funtowicz and Ravetz (1993), this new humanistic, synthetic aspect of science must also be taken into account in policy making. The values involved in the process must be incorporated into the process, and science alone cannot provide certainty. This uncertainty must thus be managed rather than denied. For such a problem-solving approach, Funtowicz and Ravetz introduce a combination of three strategies: the mission-oriented applied science, the client-serving professional consultancy, and the issue-driven post-normal science, all to be used depending on the uncertainty of facts, height of stakes, and urgency of decisions. In this model, post-normal science is the method to go to in the most difficult cases (highest stakes, severe epistemological and/or ethical uncertainties). Embracing and managing the uncertainties also requires increasing the amount of participants in policy making, thus increasing the level of democracy.

The democratization of this aspect of science is not a matter of benevolence by the established groups, but… the achievement of a system which despite its inefficiencies is the most effective means for avoiding the disasters that result from the prolonged stifling of criticism… such an extension of peer communities, with the corresponding extension of facts, is necessary for the effectiveness of science in meeting the new challenges of global environmental problems. (Funtowicz and Ravetz 1993, p. 754-755)

This requirement of participation is boosted by the 'sophistication' of public, 'where "consumers" also see themselves as critical "citizens"' (Ravetz, 2004, p. 348). The citizens' juries, focus groups and other groups do not only assess the quality of policy proposals as presented to them, but they will also utilise their own knowledge and evidence (Funtowicz & Ravetz, 2003). Activists and media may also bring up issues without the experts' authority, possibly leading to the loss of that authority (Ravetz 2004). However, Funtowicz and Ravetz emphasise that the intention of post-normal science is not to replace the traditional 'normal' science, but to use both, as well as applied science and professional consultancy, to complement each other (Funtowicz and Ravetz 1993).

Post-normal science, with its "humanistic, synthetic aspect of science" is presented as a tool to take the human aspect into account, to benefit management. However, it does not attempt to hide its complexity, which some managers might find discouraging. This study will look into both Scottish and EU policy to examine whether it is utilised in policy making, and into public discussion, to examine how the Scottish citizens are utilising their own knowledge and evidence to shape the public discussion.

3.2.1.2. Ecological economics

Costanza *et al.* (1991) explain that the purpose of ecological economics is to combine conventional ecology, which practically ignores the human aspect, and conventional economy, which focuses solely on humans, ignoring everything else. The goal is to treat humans as 'one component in the overall system', with all the features of human character and human society to co-evolve to 'reflect broad ecological opportunities and constraints'. The understanding humans have of their own role in the overall system mages them special (Costanza, Daly and Bartholomew, 1991, p. 4).

> This basic world view is similar to that of [conventional ecology], in which the resource base is limited and humans are just another (albeit seldom studied species). But [ecological economics] differs from [conventional ecology] in the importance it gives to humans as a species, and its emphasis on the mutual importance of cultural and biological evolution (Costanza, Daly and Bartholomew, 1991, p. 4).

One of the four research agendas for ecological economics suggested by Costanza *et al.* is 'valuation of ecosystem services and natural capital' (Costanza, Daly and Bartholomew, 1991, p. 9). Part of this idea is to determine values for ecosystem services and goods comparable to the values of manufactured services and goods. This can be done either through studying willingness to pay, or through a biophysical basis for value. According to this approach, things are valued based on the cost of production. This cost, in turn, is 'ultimately a function of how organized [the things] are relative to their environment' (Costanza *et al*. 1991, p. 10). They also emphasise that the value of ecosystems needs to be assessed in the long-term, over timespans longer than one human generation.

Hardin (1991) presents the following laws of human ecology, based on the laws of physical sciences:

- The first law of human ecology: "We can never do merely one thing" (from the economists' "Law of Unintended Consequences")

- The second law of human ecology: "There is no away to throw to"

- The third law of human ecology: "(Population) x (Per Capita Impact) = (Total human impact on the environment)" (Hardin, 1991, pp. 52–53).

To him, these laws, along with a set of other positions, are paramount to ecological economics. Norton (1991) in turn compares the dilemma of the reactive behaviour of conservationists to that of medical professionals: the concept of "healthy" is not precisely defined, neither in the context of human health, nor of ecosystem health. Additionally, a 'holistic' approach is required in both medicine and conservation: It is not beneficial to treat only one organ, or only one species or subsystem, without paying close attention to the impacts on the larger system (Norton, 1991). The analogue is, however, not perfect:

> Environmental managers, unlike medical personnel, lack agreement regarding the scale of management and the perspective from which it will be carried out. Consequently, important questions, including value questions regarding the proper goals of management, remain unresolved… Lacking that goal, we are in danger of treating symptoms, while making the underlying conditions worse. (Norton, 1991, p. 107)

Funtowicz and Ravetz (1994) connect ecological economics to post-normal science, discussing the need of policy-making processes to evaluate features of nature. They note that the opinions towards assigning value to natural resources differ significantly among individuals. For some, they 'must be capable of valuation in one-dimensional and hence

monetary terms in order to be treated in a rational policy debate', while for others, 'it is near to sacrilege to attach a dollar sign to a species' In addition, some 'reluctantly accept the practical necessity for linear, one-dimensional quantification of all values' (Funtowicz & Ravetz, 1994, p. 198).

However, Funtowicz and Ravetz suggest that the development of ecological economics will bring along different conceptions and measurements of value. This requires and will bring changes even in the use of language, particularly in economics. They call for environmental economics to openly recognise the legitimacy of values, rather than claiming to be ethically neutral. Yet they warn against overuse of the precautionary principle, as its 'naïve interpretation would entail a halt to all innovation, even that intended to benefit the environment' (Funtowicz and Ravetz 1994, p. 203).

The issue of monetary value is fundamental to marine wilderness management, as more potential marine wilderness areas are used for resource extraction purposes than recreational purposes, as opposed to terrestrial wilderness areas, which have traditionally been designated in areas that do not have significant existing extraction use. Therefore, there needs to be an economic justification for marine wilderness conservation. In order to recognise the legitimacy of values, as called for by Funtowicz and Ravetz (1994), it is necessary to first be aware of those values. In examining the different interpretations of the *wilderness* concept, this study aims to discover whether or not it is a functional conservation concept, appraising a natural area.

3.2.1.3. Marine citizenship

Marine citizenship is rooted in the theory of environmental and ecological citizenship. According to Valencia Sáiz (2005), these concepts all have their roots in the concept of

global citizenship, which in turn is born of globalisation and global politics, as the nation-state as the central core of political community is lost. The relation of globalization and global citizenship to environmental issues is evident, as some of the most well-known environmental problems (such as climate change and ocean acidification) are global issues that cannot be solved by national level solutions, but require a global approach. Additionally, citizens' juries, forums and virtual networks, tools of global citizenship, enable people to act as 'global-local citizens' in the transition to a sustainable society. Thus ecological citizenship becomes a part of the concept of the global citizenship (Valencia Sáiz, 2005).

Valencia Sáiz (2005) suggests that globalization requires and involves a transition 'from a state-centred politics to a new and complex multilevel global politics in which the positions of both supporters and critics of neoliberalism – and globalization – are inadequate' (Valencia Sáiz, 2005, p. 166). This 'transformationalist position' involves both deepening the political reform within national communities, but also increasing the level of international democracy and transparency. Valencia Sáiz notes that the concern has also been expressed that globalisation is fundamentally ungovernable, and the current state-level political or market forces have no interest in dealing with global environmental issues. Thus humanity is bound to face international conflicts, particularly over the control of natural resources.

The growth of the international dimension has led to a rise of citizenship theories in contemporary political studies. The rights and duties of a citizen are now also global, and a framework needs to be created that reflects that. This "world citizenship", as it was called by the Stoics of the ancient era, or cosmopolitan citizenship as it is called now, requires effort both from the national states and the individuals (Valencia Sáiz, 2005).

Environmental citizenship traces its roots back to at least 1972, when the UN Conference on the Human Environment called for environmental education that surpasses national and disciplinary borders, teaching 'the ordinary citizen – the simple steps [one] might take – to manage and control his environment', a sentiment that has since been embraced by IUCN, The Club of Rome, and the United Nations Conference on Environment and Development (UNCED). Citizen participation consequently became the core of Agenda 21 (Hawthorne & Alabaster, 1999).

Hawthorne and Alabaster (1999) list the following as the components of environmental citizenship:

- Environmental information

- Environmental awareness

- Environmental concern

- Personality variables

- Socio-demographic variables

- Environmental education

- Environmental knowledge

- Environmental literacy

- Environmentally responsible behaviour

The concept of ecological citizenship has been introduced beside environmental citizenship.

[Dobson, 2003] characterises ecological citizenship as a type of 'post-cosmopolitan' citizenship. His position here is that citizenship has a 'conceptual architecture' containing three elements: citizenship as rights-claiming and responsibility-exercising;

the public sphere as the traditional site of citizenship activity; and the nation-state as the political 'container' of citizenship (Valencia Sáiz 2005, p. 174).

Valencia Sáiz (2005) notes that ecological citizenship is based on the same architecture, with different points of reference. For an ecological citizen there are rights and responsibilities, possibly without any reciprocal relation between the two. The private and public spheres serve as key arenas of activity, and 'the connection between citizenship and any given specific political territory becomes much less important' (Valencia Sáiz 2005, p. 174). Thus, justice becomes the central virtue of ecological citizenship: Those who over-consume resources must cut down, so others have a chance to access what they need. This, according to Valencia Sáiz (2005) sets ecological citizenship as a concept apart from environmental citizenship, having even stronger focus on environmental responsibilities instead of environmental rights.

McKinley and Fletcher (2010) have studied the UK marine practitioners' attitudes towards the introduction of the marine citizenship concept. This concept could be used as tool and method to implement comprehensive participation into marine management. McKinley and Fletcher envisage a form of marine governance that 'engages individuals as policy actors through generating altered behaviour and lifestyle choices to reduce negative human impacts on the marine environment'. This, they suggest, would be a more sustainable approach than a centrally driven marine policy, as 'it would recognise the public as key actors in the development and implementation of marine policy'. Conceiving the behaviour of the public as an implementation channel would make the approach stronger than governmental approaches relying manly on legal ways to obtain policy outcomes (McKinley and Fletcher, 2010, p. 379).

McKinley and Fletcher (2010) list the following as the most important factors of marine citizenship:

- Marine education

- Personal attachment to the marine environment

- Personal responsibility for the marine environment

They note that the practitioners assume the sense of marine citizenship would be greater among individuals who depend on the marine environment, contrasting to the list of Hawthorne and Alabaster (see above), which does not consider financial dependency an important factor. McKinley and Fletcher (2010) note that the practitioners supported the involvement of citizens in marine governance, yet there was a certain level of scepticism over the role marine citizenship would play. This was partially due to uncertainty over the concept, and partially due to how it could be turned into a working framework.

McKinley and Fletcher (2012) define marine citizenship as follows:

> [T]he rights and responsibilities of an individual towards the marine environment, with individual marine citizens exhibiting an awareness of, and concern for, the marine environment, an understanding of the impacts of personal and collective behaviours on the marine environment, and is motivated to change personal behaviour to lessen its impact on the marine environment (McKinley and Fletcher, 2012, p. 840) .

Thus, if embraced by the population, the involved and participating marine citizens become a 'policy channel', delivering the state-level marine policy, as advocated in Marine and Coastal Access Act (2009) and the EU Marine Strategy Framework Directive (McKinley and Fletcher 2012, p. 840). However, McKinley and Fletcher consider that the

low level of awareness of the marine environment is currently the greatest problem facing both the ecosystem welfare and the development of marine citizenship. Thus, education on marine ecosystem services and the effects of human behaviour on marine ecosystem is at the core of the development of the concept. As with environmental citizenship, an individual's capacity to act and personal values are vital to the adoption of marine citizenship.

Through the newspaper discourse analysis, this study examines if and how people in Scotland are participating in the management of the (potential) *wilderness* areas. The discourse analysis and surveys will be used to shed light on how they experience their current ability to participate and be involved.

3.2.2 Foucault's discourse analysis

Foucault's *Archaeology of Knowledge* (1972) introduces six levels of knowledge in society and language. The first layer is *the sign*, often a word but possibly another symbol giving another person a message. The *sign* consists of *the signifier*, the symbol, and *the signified*, the mental conception (these concepts were originally used by Saussure). The next layer is *the statement.* As an example of a statement he presents madness, or mental illness, 'constituted by all that was said in all the statements that named it, divided it up, described it, explained it, traced its developments, indicated its various correlations, judged it, and possibly gave it speech by articulating, in its name, discourses that were to be taken as its own' (Foucault, 1972, p. 32). Statements may differ in form and be dispersed in time, as long as they refer to one and the same object (Foucault, 1972, p. 32). Above *statement* is *positivity*, which refers to putting the statements into practice and making them matter in society, and above that *discourse*, which is something immediately obvious to the target audience, and an injunction that something is good (Brown, 2005, p. 60-61). The next

layer is *discursive formation*, 'unity of mutually supporting messages that grow into a body of knowledge' (Brown, 2005, p. 62), or in Foucault's own words:

> Whenever one can describe, between a number of statements, such a system of dispersion, whenever, between objects, types of statement, concepts, or thematic choices, one can define a regularity (an order, correlations, positions and functionings, transformations), we will say, for the sake of convenience, that we are dealing with a discursive formation - thus avoiding words that are already overladen with conditions and consequences, and in any case inadequate to the task of designating such a dispersion, such as 'science', 'ideology', 'theory', or ' domain of objectivity' (Foucault, 1972, p. 38).

The top layer is *the episteme*, 'something like a world-view, a slice of history common to all branches of knowledge, which imposes on each one the same norms and postulates, a general stage of reason, a certain structure of thought that the men of a particular period cannot escape - a great body of legislation written once and for all by some anonymous hand' (Foucault, 1972, p. 191). Table 3.1 sets out Brown's (2005) presentation of a simplified example of Foucault's layers.

Sign:	The female *witch*, composed of the word 'witch' as the signifier, and the concept of devil-posessed woman as the signified. As *witch* reflected the disorderly, undisciplined woman, it also reflected badly upon men and masculinity.
Statement:	Late medieval period's official and popular concern with superstition, increasing at the Reformation. From around mid-fourteenth to early eighteenth century laws and institutions encouraged the demonisation of female witches, profiding the statement, or the official blessing, to the circulation of the sign *the witch*.
Positivity:	The state and churches sanctioned legislation and procedures, ecouraging evidence from informants and leading to trials and

	executions of witches. This put the sign of *the witch* into a practice.
Discourse:	The message of *the witch* is that Christian society is "riddled with an anti-Christian conspiracy, organised in covens around a male devil, in which women predominate, and which makes women the principal cause of impiety in communities."
Discoursive formation:	*The witch* in connection with other discourses about women as unruly and potentially dangerous to the Christian family and society. The 'other' of the discursion is piety as mostly masculine in construction. Related to other discourses concerning, among other things, the cuhrcu, superstitious practices, and the use of witchcraft to undermine the economic livelihoods of others.
Episteme:	The time in the pre-modern and Classical epistemes when *the witch* had the described meaning. The period when the knowledge of women being susceptible to witchcraft found authentication in the gender construction of society, and the notion of monarchy and the divine origin of knowledge. *The witch* was only one element of this knowledge.

Table 3.1 Foucault's layers according to Brown, 2005 p. 62-63

Winkel (2012) examines the use of the concepts of Michel Foucault in forest policy analysis. To start with, he notes that:

[A]s Keller (2007) sardonically points out, the Foucauldian (discourse) analysis as such does not exist, as concrete instructions on how to empirically apply his concepts to policy problems were hardly provided by Foucault himself. Moreover, his central concepts are difficult to operationalize and are sometimes used in a confusing or even contradictory manner. (Winkel, 2012, p. 82)

Winkel does, however, outline the 'Focauldian perspective'. He describes Focault's *discourse* as something that both 'gives meaning to social and physical events' and 'enables thinking and legitimises the actions of individuals', but also 'excludes other potentials to speak, think and act, leading to a shortage of acceptable statements about

reality' (Winkel, 2012, p. 82). Therefore, *power structures* are created, affecting social and political actors. This power defines what is real, and excludes alternative realities.

> Thus, Foucault virtually "cuts off the king's head in political theory" (Biebricher, 2007, p. 227) in his aim to shift attention away from the formal centers of power and towards the misty power of discourse. In doing so, power becomes as ambivalent as the concept of discourse itself because it is not only seen as being oppressive, but also simultaneously as 'constitutive' and 'enabling' (Darrier, 1999). (Winkel, 2012, p. 82).

Therefore, *power* is closely tied to *knowledge,* as 'power and knowledge directly imply one another; …there is no power relation without the correlative constitution of a field of knowledge' (Winkel, 2012, p. 82). This power/knowledge complex is created by the institutions involved with scientific disciplines, and the economic and political actors who influence them, and it is transmitted 'under the control, dominant if not exclusive of a few great political or economic apparatuses (universities, army, writing, and media)' (Winkel, 2012, p. 82). This all ties to the concept of *governmentality*, and 'the many technologies and practices, fields of knowledge, fields of visibility and forms of identity that constitute a ruler with certain powers. […] This implies that government is not limited to the state but can be exercised at all levels of society' (Winkel, 2012, p. 83).

The forest policy papers analysed by Winkel were mainly produced by policy analysts, planning scientists, geographers and anthropologists, rather than forest scientists. He notes that many of these scholars are in fact critical towards 'mainstream knowledge" and "hegemonic institutional powers". Their goal appears to be to appeal to researchers and stakeholders 'so they will broaden their views and take the critical issues that arose from the scholar's analysis into consideration', rather than 'to develop anything like a 'solution'

strategy or a policy concept'. The majority of the scholars are from Europe and North America, writing about developing countries (Winkel, 2012, p. 84). Winkel notes that Focault's ideas have influenced post structural political ecology, which 'borrows heavily from Foucauldian methodology to reveal how natures and bodily behaviors are drawn into existence throughthe generation of knowledge, and why such practices should be theorized as exercises of power' (Baldwin, 2003, p. 417), and the discursive turn in policy analysis, which aims at 'problematizing what conventional policy analysts take for granted: the linguistic, identity, and knowledge base of policy making' (Feindt and Oels, 2005, p. 164).

Winkel finds that the most popular topics in Focauldian analysis are national, regional, and communal forest management, as well as forest planning. Within national forest policy, there is a lot of interest in colonial forest policy. Within all the papers, Focauldian concepts are utilised within a range of implicitness and explicitness. *Governmentality* is more commonly used in analysis of developing countries, whereas policy discourse analysis is used more commonly in developed countries. The most common methods were qualitative, in developed countries often one single method (usually qualitatitve interviews or text analysis), and in developing countries a mix of different methods (Winkel, 2012, p. 86).

The colonial forest policy analyses present how '[c]olonial powers literally created the forest by applying western sciences, mapping and zoning, including the designation of reserves,' and how, as an example:

> [T]he Malayan rainforest was constructed as a space of fear and violence in opposition
> to the orderly rule of the state by the British colonial authorities during the Malayan
> Emergency in the decade prior to the country's political independence in 1957… Thus,

achieving control over the rainforest was a central desire of the colonial power in order to suppress communist agitation (Winkel, 2012, p. 87).

All in all, the 'modern and rational' colonial policy, based on a European cultural bacground, is used to gain and justify control in the developing world, and that state control carries over to the nation state. The papers note how little has changed since then. (Winkel, 2012, p. 87.) In boreal forest, the political battles tend to happen between different stakeholder groups, especially forestry industry and environmentalists. A paper about a conflict over the proper forest management in Finland turned 'into [a] rather staid competition over facts' (Berglund, 2001, p. 833). As the forests in Finland are something of a national symbol, there was added weight on the intertwining of truth and political power, and both sides of the argument used scientific support and mapping to back up their position (Winkel, 2012, p. 87). In both developing and developed countries the impact of industry and economic interest can be seen to be directing the official truth.

> "…Forestry is an applied natural science, positivistic in nature with a strong adherence to measurable and quantifiable evidence. Claims by forestry to objectivity and truth translate into scientific determinism and result in the discrediting of any 'countersciences' (after Paehlke, 1989), a stance typical of economic rationalism" (Brueckner, 2007, p. 151).

Winkel notes that in all the papers, there is a lack of direct critical reflections. One paper notes that Foucault's *governmentality* does not conside the effects of "strategic ignorance", and others note that practices often contradict the discourse. He also ponders on the focus of governmentality/political ecology studies in developing countries, suggesting that the scholars seem to have 'something like their own hegemonic discourse in which issues and regions are felt to be adequately addressed by a Foucauldian forest policy analysis'. This

makes colonial forest policies 'plausible' examples for forest governance approaches that are 'problematic and oppressive' and 'serve as a well accepted playground for Foucauldian analysts' (Winkel, 2012, pp. 89–90).

Yet the countries where colonial forestry orignated are left unstudied from the same perspective. The majority of the papers were also published outside of scientific forestry journals and other journals within the forest sector.

Healy (2005) discusses the concepts of Foucault and discourse analysis in a wider environmental science context, bringing in the divide between natural and social sciences. This divide, he notes, is derived from Cartesian dualism 'but with sources reaching back to at least Plato' (Healy 2005, p.240). He sees the divide between the study of the "external", non-human material reality and the human socio-cultural reality as problematic, as it prevents us from seeing the connection between the two. This divide has enabled the scientific method and the birth of the industrial society, and, consequently, now threatens the continuous existence of human civilisation. He notes how scientific knowledge and power 'are thus intimately related because of how knowledge-generating and deploying practices configure and reconfigure relational networks in ways enabling and constraining both human and non-human actions and interactions' (Healy, 2005, p. 247).

Of public participation, Healy notes that it tends to be 'an exercise in augmenting the current stock of representational information (…) usually play[ing] an advisory rather than substantive role' (Healy 2005, p.248). He also discusses the International Panel on Climate Change (IPCC) and its attempts to combine scientific and political review.

The representational demarcation of science from policy is reflected in the prevalent understanding that the IPCC provides 'policy relevant but not policy prescriptive' information. While this has always been an expedience, in that 'relevance' requires the reflection of some priorities and not others, recent developments in the IPCC involve moves to explicitly address normative considerations, such as equity, thereby effectively discarding these strictures. (Healy 2005, p.253.)

Interestingly for this research, an analysis of IPCC's Third Assessment Report by Depledge (2002) notes that:

[T]he results of this attempt [to integrate the issues of *development, sustainability and equity, uncertainty, costing methodologies* and *decision analysis frameworks*, into the work of the IPCC working parties] were mixed, with the paper on 'development, sustainability and equity' in particular reported to have ". . . triggered considerable controversy, with some authors objecting that the analysis of such concepts lacked scientific precision and involved value judgments", very much reflecting representational strictures (Healy 2005, p.253).

In conclusion, Healy notes that engaging the interdependencies between people and the natural world may "necessitate some institutional restructuring or the facilitation of new cross-institutional relationships and/or lines of communication to forge contexts able to adequately attend to building alignments of people and things in ways focused by the achievement of specific outcomes" (Healy 2005, p.255). This, he admits, is a challenge, as this divide is built in the Western culture, and subscribed to by contemporary politics and institutions.

Gruenewald (2004) takes a Foucauldian look at environmental education. While his study concentrates on the United States, he believes that the drive of global markets, and Western cultural patterns, suggests the findings are internationally relevant. Gruenewald states that institutionalised environmental education (EE) has become too subordinate to the current standard political and market practices to become truly transformative, and it is usually sidelined by the overarching educational goal of preparing the students to meet the needs of the global economy – which is also the main threat to environment. He notes that when environmental education 'consorts with schools as an "adjectival" educational discourse (Martin, 1996), environmental education works to legitimize and reinforce problematic trends in general education'. Gruenewald suggests that the fact that environmental education is based on science and 'conventional environmentalism', it 'tends to neglect the social, economic, political, and deeper cultural aspects of the ecological problem' (Gruenewald, 2004, p. 73). Gruenewald quotes Foucault, who defines *subjugated and neglected knowledges* as:

> [A] whole set of knowledges that have been disqualified as inadequate to their task or insufficiently elaborated: naive knowledges, located low down on the hierarchy, beneath the required level of cognition or scientificity (Foucault and Gordon, 1980).

According to Gruenewald, much ecological knowledge fits this description. In the everyday educational life, there is no time or commitment to explore the ways the fundamental ecological concepts relate to educational practice and social experience. environmental education practice also 'often neglects the fundamental social and ecological conflicts inherent in the economic system promoted by general education', particularly the uncritical support growth economy (Gruenewald, 2004, p. 79). In true Focauldian fashion, environmental education disciplines and controls itself in an aim

to align its curricula with the general education standards in order to legitimise itself. It also attempts to boost its legitimacy by pushing for science-based standards, arguing that science is entirely separate from politics. In short:

> The assumption that science and its application through technology are leading human beings on a journey of constant progress is central to policies and attitudes that deny ecological crises as well as their social, political, and economic causes. One outcome of this assumption is EE curriculum that might measure water quality, but fails to examine the cultural practices that cause and tolerate multiple forms of pollution as well as deny the seriousness of this ecological problem (Gruenewald 2004, p.86).

Gruenewald notes that various international bodies have attempted to solve the problem by integrating the 'complex ecological interactions between science, politics and culture, between social and ecological systems, and their impact on human and nonhuman life' (Gruenewald 2004, p.94). Yet, according to him, these efforts keep failing as they call for more environmental education rather than trying to impact the general educational discourse. The Earth Charter (2001), an international declaration of fundamental values and principles for building a just, sustainable, and peaceful global society, backed by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and World Conservation Union, is one potential way forward, yet it has been largely neglected by the dominant culture and its institutions. This, according to Gruenewald, 'can be expected as the Charter challenges the 'rationality of the market' and questions the progress of economic globalization by pointing out the costs to people and planet' (Gruenewald 2004, p.96).

This research will take Foucault to the sea, examining how the different interpretations of *wilderness* are used to gain and redistribute power and influence in environmental and marine management. It will attempt to find out whether different interpretations of the concept give the power to different groups or people, and if that is something that people use consciously to their own favour.

3.2.3. Discourse in media and law

Derrida's *Call It a Day for Democracy* (in Derrida, 1992) discusses the significance of the daily newspaper to the forming and spreading of public opinion. With emphasis on the 'daily' rhythm and nature of public opinion, the text notes that the techno-economic power of the daily newspaper allows turning an opinion into a public opinion.

> [T]he newspaper is supposed to secure a place [*lieu*] of public visibility proper to *informing, forming, reflecting,* or *expressing*, thus to *representing*, an opinion that would there find the milieu of its freedom (Derrida, 1992, p. 88).

Written in 1989 – thus before the age of the constantly updating Internet – the text also notes that a daily newspaper both reports and produces the newness of its news, emphasising the shifting and consequent importance of public opinion. Derrida notes that although non-Western cultures undoubtedly have equivalents of public opinion, its history seems to be linked to the European political discourse, rooting in French and American revolutions. There is interplay between the public opinion, especially the opinion poll, and a political decision.

> If it is not electoral in the moment proper to it, opinion… is called upon to pronounce itself by means of a judgment… It always takes the form of a "*judgment*" (yes or no)

that must exercise a power of control and orientation over this parliamentary democracy (Derrida, 1992, pp. 90–91).

In other words, public opinion is a citizens' assembly called upon to decide, to judge, issues that are both within the legal representations' competence and issues that are not. As examples of the latter, Derrida mentions different demonstrations and public debates of the time. The press can contribute to the quality of democratisation. Newspapers may enhance or disapprove official evaluations. Yet, public also evaluates the press.

Davies (1996) discusses the limits of law, noting that our thoughts are 'limited by some natural or cultural norms of thinking,' and as thoughts have limits, or ends, actions also have limits, or ends. Norms also act as limits or signs that categorise the world. Law sets limits as the institutionalised aspect of social regulation. Discussing law and language, she quotes Laclau and Mouffe (1990):

> …turning to the term discourse itself, we use it to emphasize the fact that every social configuration is *meaningful*. If I kick a spherical object in the street or if I kick a ball in a football match, the physical fact is the same but its meaning is different. The object is a football only to the extent that it establishes a system of relations with other objects, and these relations are not given by the mere referential materiality of the objects, but are, rather, socially constructed. This systematic set of relations is what we call discourse (Davies, 1996, pp. 42–43).

Davies describes legal discourse as 'that set of signifying practices contained in the institutionalised law and its surrounding context, including language and cultural norms, which interact to give certain acts a legal significance' (Davies, 1996, p. 43). Thus, the formal rules of law, the contextual systems, and the language of law are all of importance.

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She notes that lawyers tend to resist the possibility that facts are constructed by language, rather than the other way around. In the world of courts, parties to a dispute may present the facts in a way most favourable to their cause, but the judge, the arbiter of facts, speaks the truth. Legal discourse is not treated as a perspective in itself. In the 20th century, Realists and Critical Legal Scholars have argued that law can and should reflect the "real", particularly the real lives of real people, criticising the current law of its technical and abstract nature. All in all, according to Davies, the dominant paradigm in law requires the interpretation of a word to 'be "grounded"' or to correspond to its object, but tends to erase the process of construction involved, and thereby to erase the politics, and the contingency of interpretation itself' (Davies, 1996, p. 62).

Jackson (1985) discusses the semiotic theory of A. J. Greimas, which relies heavily on the European semiotics and structuralism. The object of Greimas' theory is the underlying structure of signification, in other words, the way in which the meaning in texts is generated. This theory assumes that a text can have an autonomous meaning, separate from its pragmatic enunciation.

> Language is not to be defined in terms of referring to the outside world, and should not be viewed merely as a neutral instrument in the hands of its users. The 'referent' of language is wholly internalised within it, as the mental image (cf. interpretant) which the signifier (or 'sign-vehicle') conveys. The mental image evoked may itself serve as a signifier of a separate semiotic system (Jackson, 1985, pp. 32–33).

Thus, according to the views of Greimas, it is the legislator who makes terms legal in choosing to use them in legislation, rather than using terms that are 'already legal'. *Production juridique,* or the establishment of a semiotic object, bearing signification

within legal discourse, is in itself a sign in legal discourse. A legislative text may constitute an independent meaning, even if it is not read, but it is incomplete for practical purposes until it is used by a judge. An unused text is *univers juridique virtuel,* until it is actualised by *verification juridique* (Jackson, 1985). The use of common terminology creates 'the appearance of direct reference by law to contemporary socio-cultural values' (Jackson, 1985, p. 49).

Jackson (1985) also discusses the views of the positivist legal philosopher H. L. A. Hart. For Hart, *meaning* refers to communication of both what the speaker intends, and the fact that he intends it (Jackson 1985, p. 149). In the context of law, Hart notes that general words need to have some kind of standard instance, which raises no doubts about their application, but having a "penumbra" of debatable cases will be unavoidable. It is practically impossible to perfectly define a term. If a law bans bringing vehicles into a park, what happens when someone brings a child's toy motorcar? The original incentive of protecting the peaceful atmosphere in the park may no longer apply, or it might be worth sacrificing a relatively small part of it for the enjoyment of the children in the park (Jackson 1985, p. 162-163).

As mentioned above, this research will examine the Scottish newspapers to see how they are used by the public in the *wilderness* discussions, and what interpretations of the concept can be drawn from them. The relevant legislative and policy texts in Scotland and the EU will also be examined, to see if and how the different interpretations are reflected in them.

3.2.4. Summary of theoretical approaches

Although approaching the issue from somewhat different directions, with different

motivations and tools, the basic idea behind post-normal theory, ecological economics, and marine citizenship is that the honest inclusion and awareness of people in environmental management is essential, for the good of the people themselves, the environment, and the management. This requires common understanding of the issues, methods and goals among those participating, in local, national and transnational level. Thus, people and regulations need to speak the same language.

Education is highlighted as the main tool of bringing on this new environmental knowledge and awareness, however, the same education should also be used to make sure that the people are aware of the processes and political dimensions involved, and their own rights within the system. It is also important to consider how the education is brought to people, to ensure that minority voices are not marginalised, and that the new knowledge introduced is not manipulated by those in power.

Foucault's layers of knowledge illustrate how the understanding of a single word contributes to a wider base of knowledge. Through interviews, both in person and on paper, and discourse analysis of newspapers and legislative texts, this study attempts to fill Foucault's table in relation to the sign of *wilderness*. What exactly is the *signified* for this sign – and is the signified different to different groups? Can the *statement* and the *discourse* be drawn from the theories discussed above and the collected data, and how effective is the *positive*, the environmental legislation expected to support and execute them? The legislative texts will be examined through the lens of legal linguistic and philosophical theories discussed above, while the European Union legislation is analysed keeping in mind the calls for global and transnational approach to environmental management, and the concern over current state-level political forces having a lack of interest in dealing with the global environmental issues.

3.3. Methodology

3.3.1 Questionnaires

A sample survey is one of the most commonly used and well-known social science methods. It has become the go-to method of gauging national and international views and information on issues such as voting behaviour, unemployment, occurrence of crime, consumer behaviour, knowledge about health issues, and generally to measure any parameter of a population (Czaja & Blair, 2005). Survey research has been described as interdisciplinary, combining aspects such as social interaction, discourse, sociolinguistics and statistics (Czaja & Blair, 2005). The combination of different aspects and skills required in conducting a survey, and its popularity, make survey research somewhat vulnerable to errors unless appropriately planned, tested and executed (Czaja & Blair, 2005). Oppenheim (1992) distinguishes between two different types of survey: a descriptive, census-type survey and an analytic survey (Oppenheim, 1992, p. 12). The former is used to determine what proportions of a given sample or population has a certain feature ("to count"), while the latter is used to find reasons for the features.

The benefit of a paper survey is the low cost, as one researcher is able to contact a much larger amount of respondents than would be the case with face-to-face interview surveys. It allows the use of visual aids, and respondents are usually more comfortable with very personal or intimate questions than in face-to-face or telephone interviews. Additionally, the traits of the interviewer do not affect the respondent. In mailed paper surveys, the response rates can be lower than desired. It also excludes illiterate respondents(Czaja and Blair 2005.). For this research, the method of written questionnaires was chosen to gather responses from as large a sample as possible in field conditions, while handing the surveys

personally to the respondents was used as a way to reduce the risk of response bias and increase the response rate.

One of the fundamental questions in survey design is whether to use open or closed questions. The former are appreciated for their apparent "face validity", while the latter can be better used to focus attention on the responses specifically chosen by the researcher. The closed questions are also more practical in many ways, including cost and time efficiency (Schuman, 2008, p. 30). Closed questions surveys may fail to include answers that the respondents would consider most appropriate, but it has been suggested that spontaneous answers to open questions may be more likely to reflect something the respondent has come upon recently, rather than issues of personal significance (Schuman 2008). Among possible solutions to attempt to overcome some of these limitations are to combine both types, or to use one to replicate results obtained with the other. Another possibility is to conduct a pilot test with open inquiry, and use the result to design a closed question survey (Schuman 2008).

Czaja and Blair (2005) note that some criticism has been given towards the agree-disagree format, as according to research, there is a tendency towards agreement, especially among less-educated respondents (Czaja and Blair 2005, p. 82). They also note that the word *survey* may carry negative connotations, as it is associated with sales calls, whereas the word *study* is more likely to incite positive response and increase the likelihood of cooperation among the respondents (Czaja and Blair, p. 92). In this study, a combination of question types is used. The surveys consist of both open and closed questions, and the Likert item questions are accompanied by an open question allowing the respondent to provide an explanation or additional comments to each chosen value. The surveys used will be described in more detail in Chapter 6.

3.3.2. Discourse analysis

This research uses discourse analysis to study the use of the term wilderness in the Scottish and European public discourse, concentrating on newspapers and relevant legislation and policy publications. It will take a pragmatic approach, seeking to understand what the writers actually mean when they use the term, and what their intentions behind writing about it might be.

Discourse analysis is said to be a 'trendy term for a trendy concept' in academia, overused and even misused according to some (Richardson, 2007, p. 21). It is certainly a tool that can be used in many different ways and for many different purposes, and thus the researcher must be aware of this. Especially in conservation research, where there tends to be an ethical agenda, it must be noted that the results reached by discourse analysis are not hard facts. Cameron *et al.* (2006) discuss 'advocacy' and 'empowerment' research, where the former means research '*on and for* subjects' and the latter '*on, for and with* [subjects]' (emphasis in the original). In both cases, the researcher feels sympathy towards the subjects, and the research can be expected to bring them some benefit. As one of the purposes of this research is to explore a common ground between the extractive use and conservation of coastal and marine environment, the subjects can be expected to have various different agendas and desires.

Linguistics has been traditionally viewed as a descriptive discipline, which does not make value judgements on its subject texts, nor prescribes the use of language. The question of partiality is however present in newspaper analysis, as news sources are easily taken as impartial deliverers of facts, yet most have some level of national, political or ideological bias. As discourse analysis considers that language itself is not neutral, the study of

language use in newspapers examines how language is used to form and convey these agendas and ideas (Fowler, 1991).

> Thus news is a practice: a discourse which, far from neutrally reflecting social reality and empirical facts, intervenes in what Berger and Luckmann call 'the social construction of reality'. (I hasten to assure readers that one can believe that news is a practice without also believing that news is a conspiracy.) (Fowler 1991, p. 2.)

Most consumers of media tend to favour one newspaper or one news channel over others, often on the grounds of reliability, thus limiting their own experience (Fowler, 1991). Numerous studies have been conducted on how politics and class are reflected in the British print media, and how the choice of terminology indicates which side a paper is taking. As an example, middle-class-oriented newspapers have a tendency to individualise (refer to as individuals) elite persons and assimilate (refer to as groups) "ordinary people", while the working-class-oriented papers to tend do the opposite (Van Leeuwen, 2008). The editorial section, in turn, tends to be where the paper's own voice is revealed in a more open fashion. "[A]s the old *Times* 'thundered', the strident interrogating of the *Mirror*, the appearance of a careful balancing of alternatives practised by the *Guardian* and the *Observer*" (Fowler 1991, p. 209). When it comes to environmental reporting and commentary, the liberal, social democratic *Guardian* has long played an active role (Carvalho and Burgess, 2005). As mentioned above in Chapters 2.3. and 3.2.5, power structures are inherently present in conservation and protected area discourse. Therefore, acknowledging the relevant hierarchies and cross-group relationships is extremely important.

3.3.2.1 Construction of text collections for discourse analysis

This research uses corpora software to look into the use of the terms *wilderness* and *wildness* in the Scottish and British newspapers. The specialized text collections were compiled by the researcher, using the TextSTAT software.

On the 3rd of February 2009 the European Parliament adopted a resolution on wilderness in Europe (2008/2210(INI)), calling for an EU definition of wilderness, mapping of wilderness areas, and studying of the values and benefits on wilderness areas. The resolution also called for a wilderness strategy, national and international protection and development of wilderness areas, and raising awareness about wilderness. This resolution brought wilderness into the EU-wide political agenda, leading into, among other things, the 2009 *Prague Conference on Wilderness and Large Natural Habitat Areas* (Jones-Walters and Čivić, 2010). Due to its significance to the EU-wide wilderness discussion and politics, the 3rd of February 2009 was chosen as the start date for the newspaper text collections, analysed in Chapter 4. The chosen end date was the 3rd of October 2014, when the first of the text collections was created. For the legislation and policy collection analysed in Chapter 5, all available material without time limits was examined.

A word search was performed in the online archives of the three examined newspapers, *The Scotsman, The Herald, and Daily Record.* The results were then added to the TextSTAT software, as shown in Figure 3.1.
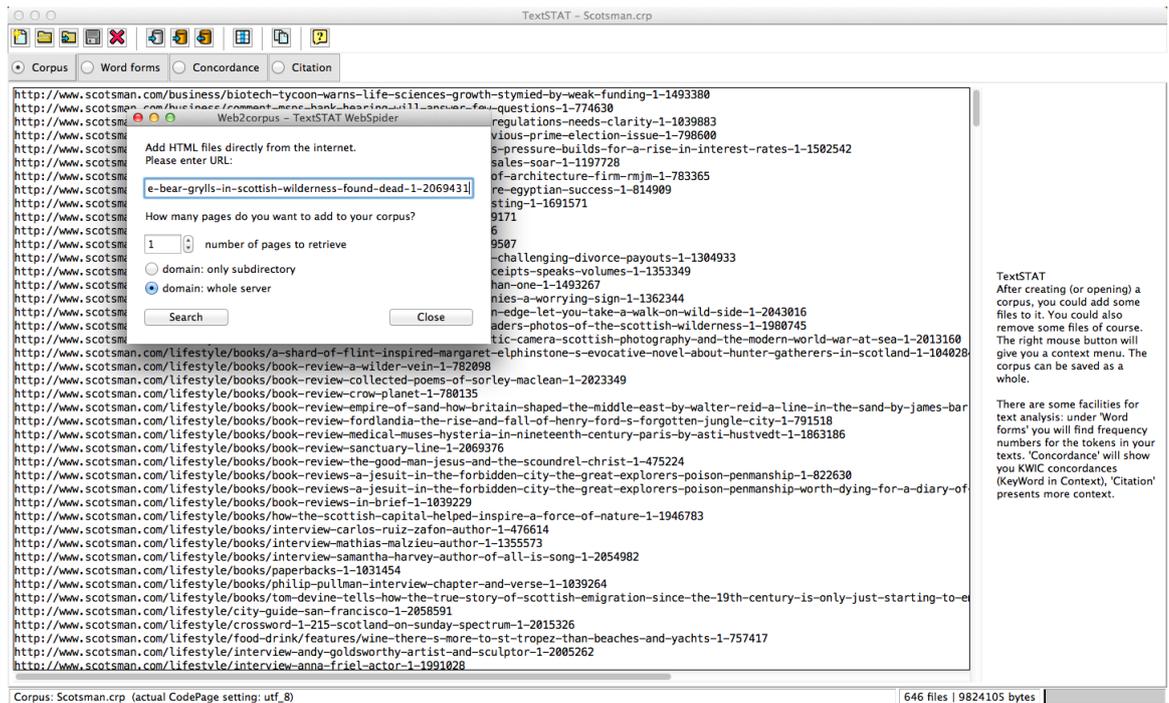
Figure 3.1 Adding files to TextSTAT software

TexSTAT allows viewing a list of entries, as shown in Figure 3.3, and the phrase including the search term in context, as shown in Figure 3.2, with a link to the original article. Some of the hits referred to the directory pages of the archives, as shown in Figure 3.4. These hits have been eliminated from the totals of different sub-terms, discussed in Chapter 4.
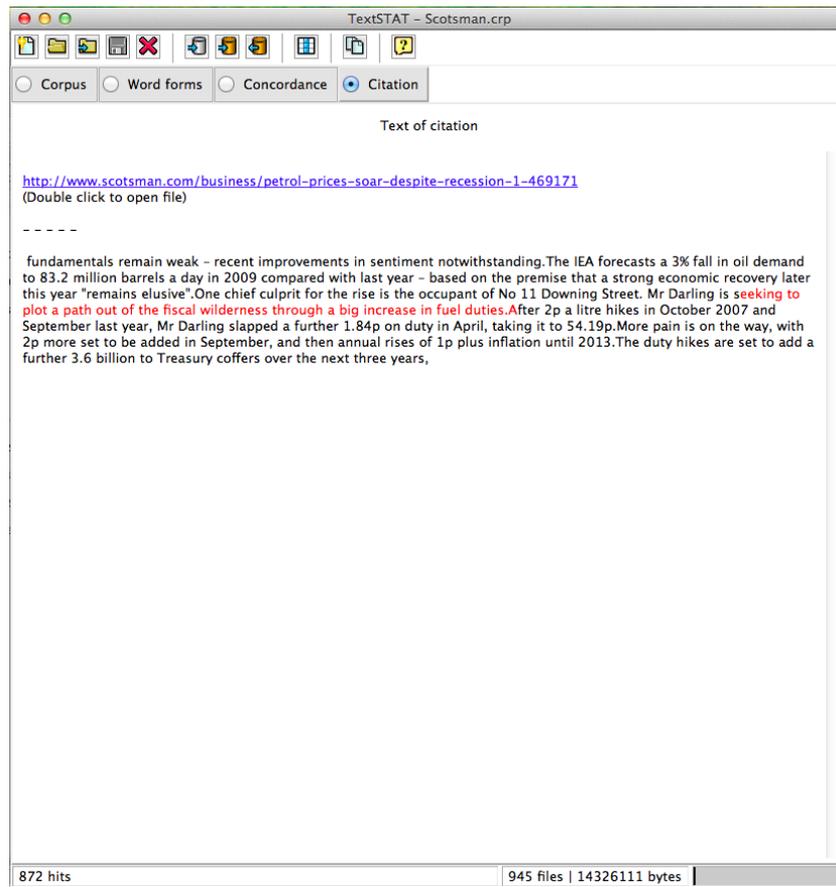
Figure 3.2 Example of a hit in context in TextSTAT software
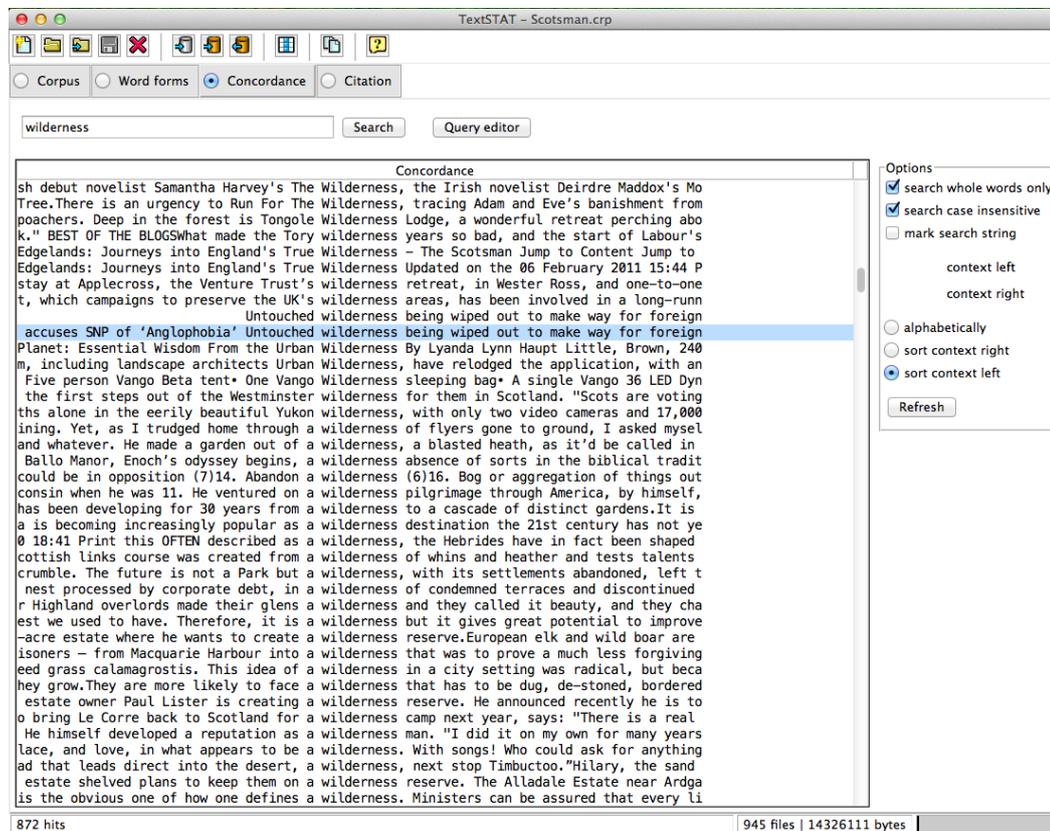
Figure 3.3 List of entries
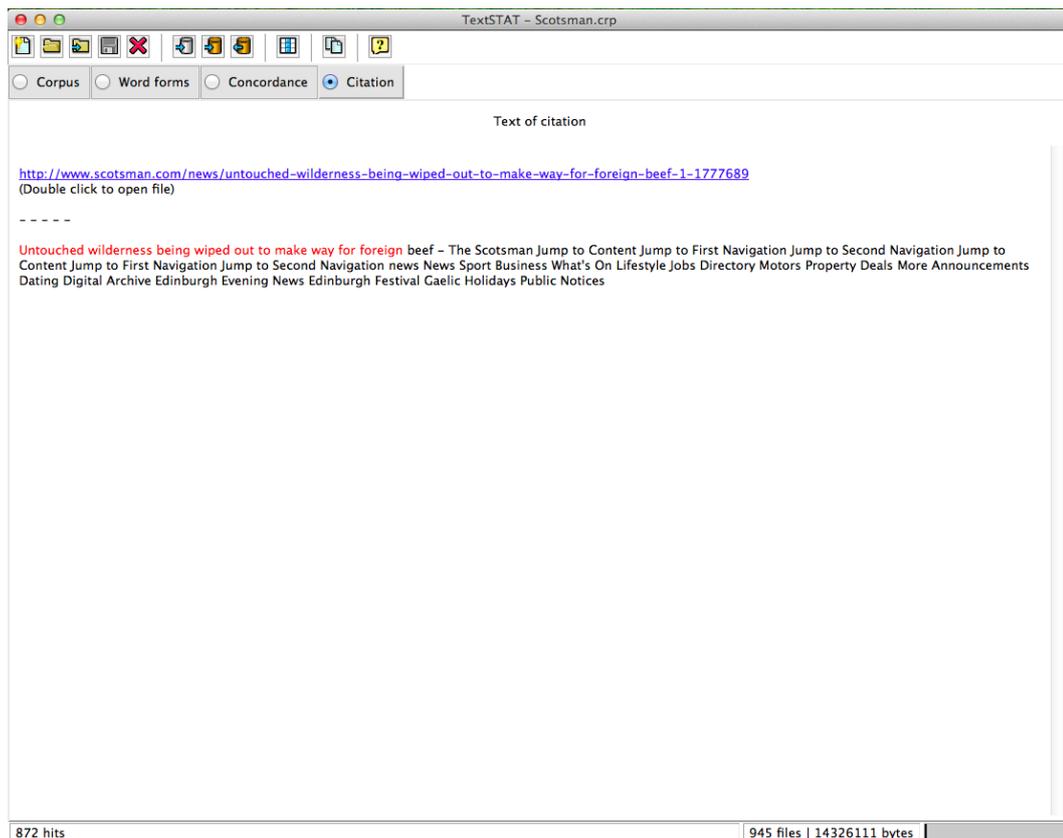
Figure 3.4 Example of a directory page.

3.3.3 Social network analysis

Social network analysis analyses and conceptualises social networks, often through visual means. The underlying view is that society consists of a structure of interpersonal ties, rather than of a collection of individuals (de Nooy, Mrvar and Batagelj, 2011). In this research, the software *Pajek* was used to examine the affiliation network of survey respondents and their views on different wilderness features.

Pajek creates sociograms, where each actor (in the case of this research, each respondent and each feature) is represented by a circle (referred to as a vertex), and the connections between them are represented by lines (edges) and arrows (arches). The sociograms were

exported as Scalable Vector Graphic (.svg) files, and edited for clarity using the *Inkscape* software.

3.4. Scope, limitations and researcher bias

The research is primarily limited to the specific study areas. The discourse analysis provides a broader view of the general situation in Scotland. The scope of the study confines itself to an enquiry regarding how well the selected concept of *wilderness* and *participation* are interpreted, and how they reflect the situation, in the selected study areas.

The main methods of this study are discourse analysis of newspapers and legislative and policy texts, and surveys. The study design is informed by an extensive literature review. The limitations of the selected research methods are discussed above. It should also be noted that when requesting individuals to participate in a study of this kind, it may be that individuals with negative opinions are more reluctant to cooperate, especially in small coastal communities where everyone knows one another and a contesting opinion may cause friction. On the other hand, very vocal individuals with strong opinions may be more willing to express their views than those with less interest in the matter or those of more introvert or shy disposition.

As has been discussed above, the post-normal, post-structural ecological research is not trying to be free of agendas, and no research is safe from bias. The researcher in this case has a long personal history of interest towards conservation, and a more recent interest towards the well-being of small-scale fishermen, as well as the EU fisheries policy.

PART TWO: DATA COLLETION AND ANALYSIS

4. WILDERNESS AND THE SEA IN NEWSPAPERS – A DISCOURSE ANALYSIS

This chapter examines the use of the word *wilderness* in Scottish and British newspapers, particularly in the coastal and marine context, though the use of text collections specially constructed for the purposes of this research. The collections were constructed by the researcher, using the freely available TextSTAT software, designed for corpus research.

4.1. *The Scotsman*

The Scotsman is a Scottish daily newspaper founded in 1817. In 2014, it has a print circulation of 27,208 (McIvor, 2012) and the website has a daily average of 160,118 visitors (Audit Bureau of Circulations, 2014). It has been published in tabloid format since 2004 (Byrne, 2004) and it backed the 'No' vote in the Scottish independence referendum (*The Scotsman*, 2014). The search for the word *wilderness* was performed for the database of *The Scotsman* on the 3rd of October 2014, and a collection of 945 pages was constructed. This included 580 pages from the 'news' section, including:

- 58 entertainment, art, and media reviews
- 37 'world news' pages
- 21 interviews
- 18 obituaries
- 17 'travel' pages
- 16 'Scotland top stories' pages
- 11 'environment' pages
- 10 'politics' pages
- Nine opinion pieces
- Eight letters
- Five 'outdoors' pages
- Four 'health' pages
- Four 'readers' best comments' pages
- Three 'education' pages

- Three 'celebrity' pages

It also included:

- 146 pages from the 'lifestyle' section (including arts, books and book reviews, author interviews, games, gardens and home, heritage, outdoors, travel, interview, and 'walk of the week' subsections)

- 146 pages from the 'sport' section (including cricket, football, golf, rugby, tennis, and 'more sport' subsections)

- 57 pages from the 'what's on' section (including films and film reviews, music, gig reviews, album reviews, theatre, comedy, dance, TV, and radio subsections)

- 16 pages from the 'business' section

In practice, *The Scotsman's* search system appears to not be 100% accurate, the collection also included for example articles discussing the notorious Dutch politician Geert Wilders, who had trouble entering the UK in 2009, and was charged for hate speech in 2011. Thus the number of words should be treated as the more reliable indicator of frequency than the amount of pages.

4.1.1. Wilderness according to **The Scotsman**

The TextSTAT software detected 863 uses of the word *wilderness* in the imported collection, as well as one use of *wildernes* [sic], and 17 uses of *wildernesses*. Approximately 40 instances were proper nouns for organisations, institutions, and locations, such as Wilderness Scotland, Erongo Wilderness Lodge, Alladale Wilderness reserve, and Junior Wilderness Scout. 43 uses referred to *wilderness area/s* and eight to *wilderness reserve/s.*

In many of the articles, *wilderness* is used as a metaphor for obscurity, or a lack of position of authority or visibility. Jenson Button, compared to some other Formula 1 champions

who either started in a top team or transferred into one early on in their careers, 'spent years in the wilderness at [the middle-grid teams] BAR and Honda before clinching the title' (*The Scotsman*, 2010k). The tennis player Mirjana Lucic 'spent a decade in the tennis wilderness due to off-court problems, but enjoyed the best result of her comeback [in Wimbledon 2012]' (*The Scotsman*, 2012d). For Barry Ferguson and Allan McGregor, two footballers who were given censure for excessive drinking, there 'could be a way back from the international wilderness [to the Scottish international team]' (*The Scotsman*, 2009l). In the collection, there are six references to *football/ing wilderness*, six references to *golfing wilderness* and 31 references to *international wilderness*. *Political wilderness* (15 references) has the same connotations. 'If the union… was agreed, [The Jacobites] would be condemned forever to the political wilderness' (Whatley, 2012). Alan Milburn was 'regarded with an almost pathological loathing by the Brownites, only to be brought back from the political wilderness as an adviser on social mobility after Mr Brown became prime minister' (*The Scotsman*, 2010e). Tories, meanwhile, are hoping to take the 'first steps out of the Westminster wilderness' (Peterkin, 2009). *Business wilderness, entertainment wilderness,* and other similar compound terms also appear.

The phrase *wilderness years* is also relatively popular, with 20 hits (and one *wilderness year* singular form). Gary Barlow had his wilderness years 'after the Take That split' (*The Scotsman*, 2009f), Hugh Reilly ponders if his were during his years as a teacher (Reilly, 2011). Claire Black defines her wilderness years as the period when he suffered from 'hideous hairdos foisted upon [her] by stylists' (Black, 2013). Even The Muppets have experienced theirs 'when no-one really knew what to do with them' (*The Scotsman*, 2012c). Similarly, the phrase *voice in the wilderness* has a few references, as 'Scottish Enterprise is a voice in the wilderness trying to prop [investments in science] up' (*The Scotsman*, 2011a). Neil Malcolm the landowner, in turn, 'is far from a lone voice in the

wilderness,' trying to bring attention to the damage caused by beavers (*The Scotsman*, 2009e). Again, *wilderness* has its traditional meaning of obscurity and being lost, or far away from everyone else.

In other contexts, figurative *wilderness* may refer not only to something obscure, but also to something wild and uncontrollable, unfavourable, or possibly uninformed. Fiona McCade says she 'spent so many years in the Gothic wilderness, [she knows] from experience that nothing looks lovelier… than our natural hair colour' (McCade, 2013). Alan McCredie had mixed feelings of the leaflet handers and street performers of the Edinburgh Fringe, as he 'trudged home through a wilderness of flyers gone to ground' (McCredie, 2013). Chancellor Alistair Darling 'is seeking to plot a path out of the fiscal wilderness through a big increase in fuel duties' (*The Scotsman*, 2009j). Simon Jenkins expresses surprise over the fact that young people, equipped with mobile, digital technology, 'are reinventing the city not as a virtual society, synonymous with a social wilderness. They are creating a city of actual, not virtual, reality' (Jenkins, 2009). Chancellor George Osborne's announcement that people who become unemployed must wait a week rather than three days before claiming Jobseeker's Allowance is dubbed 'week-in-the-wilderness scheme' (McColm, 2013). An article dipping to *The Scotsman* archives introduces us to Mr Luke Fawcett, the president of Amalgamated Union of Building Trade Workers, who in 1936 declares families to "have been induced to leave the Sodom and Gomorrah of slumdom to enter a wilderness of inconvenience and depression on new housing estates" (*The Scotsman*, 2009k).

However, *wilderness* is not all bad news in *The Scotsman*. The Scottish wilderness in particular is something fragile, precious, and worth protecting. The phrase *Scottish*

wilderness has 9 hits, and *Scotland's wilderness/es* has six. The precarious state of the Scottish wilderness is often brought up in discussions of development projects.

> [T]he Scottish wilderness is shrinking fast according to a new report. In the past year the amount of land which is not visually blighted by man-made structures has shrunk by an area 14 times the size of Glasgow. A growing number of windfarms have been blamed for the loss of wilderness. Power lines have also been blamed for encroaching on the landscape ("Paradise lost - Scotland's vanishing views," 2011).

Wind farms in particular seem to be considered a serious threat to Scottish wilderness, as '[w]hen you take the purity of the wilderness and thrust into its heart 400ft-high metal turbines, the grandeur and majesty of the land is industrialised and debased' (Trewavas, 2011). *Windfarm/s* has 12 hits in the collection, *wind-farm/s* ten and *turbine/s* 108, coming up both in articles and letters. When the Scottish Government makes a decision to keep the farms away from national parks and areas of scenic beauty, to protect the Scottish wilderness, it is noted that among the problems and pitfalls is the lack of clear definition for wilderness (*The Scotsman*, 2013). The North of Scotland Hydro Electric Board also receives its share of criticism: 'Our Highland overlords made their glens a wilderness and they called it beauty, and they challenge us to disturb that beauty…' (Wilson, 2013). On the other hand, the '[w]ider political agenda [related to an issue of harrier persecution] means returning Scotland to a communal wilderness populated by cagouls singing The Happy Wanderer' (*The Scotsman*, 2011i). It seems that the remaining Scottish wilderness is something that ought to be protected, but not so efficiently that what is considered essential to the Scottish lifestyle is threatened.

It is noted that images of Scottish wilderness, including postcards, 'became an industry in the 19th century' (Macmillan, 2011). And in some areas, wilderness is returning. St Kilda's 'now-desolate landscapes… are testament to the stark beauty of Scotland's coastline as the islands return to the wilderness' (*The Scotsman*, 2012b). A contradicting opinion in a letter from a reader states that thanks to political developments, 'The Highlands are a far cry from true wilderness and our national parks are nothing of the kind, not even being owned by the nation' (Greer, 2010). Meanwhile, Scotland's 'shrinking wilderness' is mapped by Scottish Natural Heritage, which notes that 'Capturing a subjective quality like wildness is challenging, as individuals respond according to past experience and expectations' (Urquhart, 2012 in *The Scotsman*). It is also noted that not all Scottish wilderness – at least when it comes to the subjective experience – is in the Highlands: 'In Hermitage Wood, above the campus of the University of Stirling… a feeling of wilderness only a short distance from the civilised atmosphere of academia' can be experienced (Nick Drainey, 2011). The eventually cancelled plans of the landowner to reintroduce wolves in the Alladale wilderness reserve are also discussed (*The Scotsman*, 2009o, *The Scotsman*, 2010b, *The Scotsman*, 2010g). Roger Cox notes that Scotland is 'an adventure playground' rather than 'a serious place to go play' exactly because of the lack of large predators. He quotes Jim Crumley, who writes: 'In a northern hemisphere wilderness, with the wolf in place, everything in nature makes sense, but in the absence of wolves nothing in nature makes sense' (Cox, 2010). It seems that very different views and opinions of the Scottish wilderness and its state live in (relative) harmony in the pages of *The Scotsman.*

For an individual, wilderness may be a source of solace and/or mental healing. A place for 'abandoning the rat race to live a simpler life in some benighted wilderness' as a solution to one's mid-life crisis (Farquharson, 2012). A company 'runs development programmes for troubled youngsters, using wilderness activities to help them improve their confidence

and turn their lives around' (*The Scotsman*, 2009a). Estate agents consider that '[t]here is a big value in wilderness and it is sure to sell to someone who… wants to escape the rat race' (*The Scotsman*, 2010d). As a location of exercise, wilderness beats the gym. 'The study showed there was a significant rise in people's self-esteem and mood, when they exercised in the wilderness or by water' ("Five minutes of outdoor exercise works wonders," 2010).

John Muir, the Scottish-American author and wilderness advocate, is much discussed with 146 hits in the text collection (30 of which refer to the John Muir Trust). Some writers mourn that Scotland does not do as much to respect his memory than the United States, as well as the irony of the fact that 'the country which gave birth to John Muir was one of the last to join the world family of national parks, and did so very tenuously' (McDermott, 2012). Muir is also used as something of an excuse in the discussions over the development of Scottish wilderness, as in 'I am sure John Muir would join us in viewing the current park authorities almost as pseudo-development agencies… What would John Muir think of many of the wind farm schemes that have passed muster with planners?' (McDermott, 2012). The plans for the 2013 John Muir Day were also reported (Cox, 2013b; Ferguson and Wheelans, 2013).

But bad and unpleasant things also happen in the wilderness. Not only did 'what looked like an easy route [take Kevin Langan] through the wilderness and meant he spent a sleepless wet night on a hillside' (Croce, 2010), but six George Watson's College students had to be rescued from the Highlands by the Mountain Rescue Service in an article titled *Rescuers tell of search for schoolgirls in wilderness* (*The Scotsman*, 2010i). Over 150 law enforcement officers 'on foot and on horseback had descended on the wilderness' in California on a hunt for a killer (Zuckerman, 2013). David Austin, a man 'trying to live

like Bear Grylls in Scottish wilderness' was found dead, apparently of hypothermia (*The Scotsman*, 2012a). The fugitive Raoul Moat, who shot himself near the village of Rothbury, was unnervingly 'not always hiding out in the wilderness' before his suicide, but rather in the village itself (*The Scotsman*, 2010h). A camp of British Schools Exploring Society in Svalbard expedition is attacked by a polar bear, killing a 17-year-old boy and putting four other people in hospital, one of whom is given the title 'wilderness writer'. (*The Scotsman*, 2011c). One of them, an expedition leader, is hailed a hero after shooting the bear (*The Scotsman*, 2011f).

Books, films, and other forms of entertainment reviewed in *The Scotsman* also discuss wilderness. In some of them, wilderness is the stage for suffering and ordeals. Gillan Mears' main character gives birth at the age of 14, unassisted, while driving pigs with her father across the wilderness (L. Randall, 2012). David Grann's *The Lost City of Z* discusses 'the jungle itself, the real and shrinking wilderness that can be traversed on Google maps, but also the wilderness as a metaphor that can be glimpsed but never charted – the world as it really is, where everything wants to infect you and even flowers want you dead' (*The Scotsman*, 2009c). The movie *127 Hours*, the main character falls down into a ravine, gets his arm pinned by a boulder, and ends up having to amputate his own arm (*The Scotsman*, 2011d). Meanwhile, in Samantha Harvey's *The Wilderness,* wilderness is not a location but a metaphor for the life of a man with Alzheimer's, trying to piece together his life story (*The Scotsman*, 2009d). Other books and works of art discuss wilderness, or reveal something about the writer's attitudes towards it. Robert Macfarlane's *A Wilder Vein* debates the meaning of the words *wild* and *wilderness:* '[Margaret Elphinstone] defines wilderness simply as "places where people are not", and in that beautifully succinct bit of verbal reasoning (delivered in brackets, incidentally, as if she were almost embarrassed to state something so blindingly obvious)'. The book also asks whether it is

acceptable to interfere in rewilding process, by righting wind fallen trees and protecting saplings, or does that lead to 'a wilderness that is somehow also man-made?' (*The Scotsman*, 2009b) In David Vann's *Caribou Island,* wilderness is 'like a giant mirror for what's going on for the characters'. The cold and desolated landscape reflects the characters' failing marriage (*The Scotsman*, 2011e). The first Scottish settlers' reaction to North American wilderness is described as 'a problem to be solved or, rather, to be beaten into submission' (Cox, 2013a). The author Jane Urquhart is said to attempt to balance 'Margaret Atwood's preoccupation with a hostile Canadian wilderness barren of European myths and legends' by 'layer[ing] her landscape with quirky family histories, of suicidal lighthouse men and the dangers faced by farmers who covet their neighbour's barn' (Askeland, 2012). In a painting of Frances Walker, 'This landscape is true wilderness, but even here, at this ultimate margin, she records a human presence. She points out that there is a tiny hut in the picture, just a minute black triangle at the distant water's edge' (*The Scotsman*, 2010a).

There is a clear duality in the meaning of wilderness in The Scotsman articles. For the professional, the athlete, the politician or the businessman, wilderness is a failure of a location. It is the place where one disappears, unable to fulfil one's plans or potential, and where one must struggle to get out of. On the other hand, wilderness is an environment to be protected and preserved, and a location for reaching inner peace and physical health. The businessman might, in fact, seek out wilderness to escape the rat race and to become mentally and physically whole again. There also seems to be a somewhat patriotic relationship with the Scottish wilderness, especially when such a relationship is beneficial to one's political agenda. The concrete wilderness is more likely to be positive than the figurative, but real wilderness as a backdrop can also bring more darkness to real-life

crime stories and tragedies. In entertainment and art, wilderness is the stage, and something for the characters in the story to have a relationship with.

4.1.2. Wilderness *and the sea in* The Scotsman

In some of the wilderness articles of *The Scotsman*, the discussion either concentrates on or involves marine and coastal wilderness. There are 142 hits of the word *sea/s* in the text collection, 20 hits of *ocean/s,* 12 of *marine*, and 128 hits of *coast/s* and coast*al*. These numbers exclude proper nouns.

Marine wilderness comes up as a location affected by human activities, including resource extraction and energy production. It is a term used to promote certain image of fishing and seafood. 'One of the motivations we had when naming our firm is we really believe it's time a true ethic of respect entered the game. A fishing license is a very powerful thing as it means you can go out into this great wilderness' says Guy Grieve, the founder of Ethical Shellfish Company (*The Scotsman*, 2011b). Marine wilderness' vulnerability to wind turbines is brought up alongside the vulnerability of terrestrial wilderness: 'With many hundreds of planning applications for wind farms in progress, there will remain no rural or marine view in Scotland that does not contain wind turbines' (*The Scotsman*, 2011g).

Sandwood Bay, 'a perfect wild creation' is introduced as a significant attraction in Scotland; a piece of art constructed by nature. Although it is 'widely acknowledged as one of Scotland's most beautiful beaches', and has 'some claim to being Britain's best beach' and it has signs of human settlements since the time of the Picts, it 'was never especially hospitable terrain. The first maps of the area were made in the 17th century and describe the land as an "extreem [sic] wilderness" through which wolves roamed.' The local conservation manager, Cathel Morrison, suggests that more visits to wild land would

shorten the queues at doctors' offices. The article paints a beautiful picture of the beach, with 'a fanfare of gorse and a thousand daisy starbursts', pink glow on the sand, the combination of dunes and the ocean resembling an amphitheatre, the seabirds, and the roaring waves. 'That first view of Sandwood Bay feels a little like arriving at a site of religious pilgrimage', yet 'some find it an eerie place and report an oppressive, even hostile atmosphere'. The article seems to play on all the conventional wilderness imagery, comparing the beach to ancient sculptures, describing spiritual experiences, and treating the view like a painting. The bay appears to have all the traditional maritime legends attached to it: ghost stories, mermaid sightings, shipwrecks, and buried treasures are all mentioned. Yet it is also noted that here, like in many other locations, the emptiness is artificial, as the local tenants were evicted as a part of the Highland Clearances of 1847 (*The Scotsman*, 2010j).

The 'breathtaking wilderness of Cape Horn' is also described in a travel article, with its 'bold, striking and otherworldly' beauty. The cruise is characterised by appearances of marine mammals and birds, varied vegetation, rough weather conditions, and the dramatic landscape formed by the Andes, the often stormy sea, and the Pia Glacier. The journey is also improved by hot chocolate and whisky served on the ship (the latter served with glacier ice), and by the 'passion and knowledge' of the ship crew ("Travel: Journey to the end of the earth," 2009). The 'great white wilderness' of Antarctica is a mix of charismatic wildlife and ice and snow - the author of the article considers the latter even more captivating than the former. 'Forget white beaches and palm trees, forget azure waters and tropical skies. This is as close to paradise as you can get'. But Antarctica is served with a pinch of guilt. Despite the several-hours-long delay the cruise takes to retrieve a lost plastic bag, the author cannot stop calculating the carbon footprint caused by the flights and the passage and luxuries of the cruise ship. 'I'm glad that I've seen Antarctica, but I

want it to remain untouched, unspoiled and therefore, I suppose, unseen. I want others to witness it, too, to know what it is to be changed by a place. But simultaneously I want to be the last tourist to have gone there' (*The Scotsman*, 2010l).

The conflict of terrestrial and marine wilderness, and the issue of the unfamiliarity of the marine, does also come up. Guy Grieve explains how, after several wilderness adventures around the world, he 'realised that [he's] surrounded by this immense, incredible wilderness called the North Atlantic'. Through his diving he became concerned about the devastating effects of trawling,' the damage we are doing to this unseen wilderness', and tried to pitch the issue to a TV executive. The response he received was: 'the sea bed simply isn't sexy' (*The Scotsman*, 2010f).

Both marine and terrestrial wilderness come up often in articles about adventurers and extreme sports. Karen Darke, a Scottish explorer and a Paralympic athlete who was paralyzed from the chest down in a climbing accident at the age of 21, has kayaked through Patagonia, climbed El Capitan in Colorado, skied across Greenland, and in the autumn of 2009 is planning to undertake a trip to the South Pole. She took to sports as soon as she was out of rehab after her accident, and aims to raise money for a charity that helps young people with disabilities to 'live active and fulfilling lives'. She describes Patagonia as 'almost on a par, in terms of the fear factor, with climbing El Capitan… a really, really wild place and there's just no sign of civilisation – no roads, no power cables, nothing. It was a real wilderness experience' (*The Scotsman*, 2009h). Wildlife photographers Sue Flood and Doug Allan discuss both their work and marriage, the latter sometimes strained by the fact that they usually work in different corners of the world. The article describes how Allan proposed when the two were stranded on a drifting ice floe. Flood describes the Polar regions as 'absolutely spectacular scenery, wilderness, the thrill

of seeing the world's largest predator, with you on foot only a few metres away', while Allan notes that 'if we share an experience – a high – together on the ice, it's a bigger high than you would get if you were just seeing it on your own' (*The Scotsman*, 2009g). Ben Fogle and James Cracknell retrace Captain Scott's journey to the South Pole, and the term "frozen wilderness" comes up again. The effect of the trip on their personal life is discussed in the article, as Fogle's wife miscarries just before the beginning of the trip, yet urges him to go, and the two men start their trip barely knowing each other. Unsurprisingly, they become friends during the journey. Fogle recounts how Cracknell, suffering from pneumonia, weight-loss, and blisters, is forced to give some of his gear to Fogle, up until then the lightweight of the two, to pull. 'I knew it at the time, it didn't pass me by. I knew it was monumental in our friendship and in James's life' (*The Scotsman*, 2009i). Charlie Paton, who has been to the North Pole eight times, is also on the way to Patagonia, planning to cross the Southern Patagonian Ice Cap unassisted and without back-up. He describes the ordeal of crossing landscape filled with crevasses, with limited food rations. In his view, 'It is a horrible place Patagonia, it looks beautiful on photographs but it is hell frozen over' (Drainey, 2012).

The aforementioned Guy Grieve features in four articles in the collection. He makes an attractive main character, with the story of how he walked out of his office job, burned his suit, and headed 'into the Alaskan wilderness to live alone for a year in an Inuit rite of passage' (*The Scotsman*, 2009n, *The Scotsman*, 2010f). After that, he took his family and a traditional 41ft cutter-rigged yacht, to sail from Dutch Antilles, through the West Indies, past Puerto Rica, Cuba, Haiti and the Bahamas to Florida, Cape Fear, New York (where the family flew home), Halifax, and then across the Atlantic back home to Mull. He sees the outdoors as his church, his place of spiritual healing, and a place where he battles the expectations to 'grow up and display a certain degree of cynicism and world-weariness'

(*The Scotsman*, 2009n). Grieve explains how he thinks for women childbirth acts as 'a meeting with life and death… a transition, a rite of passage between womanhood and motherhood, when a whole new set of values are picked up by giving way to nature', and laments that men do not have such a physical and spiritual rite of passage, at least without a year's stay in the Alaskan wilderness. And, when he is overcome by seasickness, he is 'overcome by the worst feeling of shame that [he has] ever experienced… Hard and unhappy thoughts crowded around [him]: [his] sense of responsibility, [his] male pride, [his] duty as a father, [his] family made vulnerable'. He admits that he 'got a glimpse of just how damaging men can be when they're not cutting it… I was also sulking and feeling hugely sorry for myself – all the self-obsessing that I thought I hated. I withdrew into myself but there's nowhere to hide out at sea – it's so revealing' (Smith, 2013). His wife, Juliet, meanwhile, refuses to be the victim of abandonment, despite the fact that some of her friends saw her as 'if not quite a gender traitor then at least guilty of larcenous over-indulgence of her wayward spouse' during his Alaska trip (*The Scotsman*, 2009n). While Grieve was in Alaska, Juliet moved the family to Mull, where Grieve has now found 'his own private wilderness, achieving a contentment in the process and sating his wanderlust' diving in the North Atlantic (*The Scotsman*, 2010f).

Roger Cox (2012) discusses the two different approaches to extreme sports and outdoors. One, according to him, is the one that leads people to hunt achievements, and see 'the natural world as little more than an arena in which to achieve their next personal best', and which he suggests is easy to recognise by the fact that those individuals tend to drop the amount of outdoors exercise they have done in a given day in every possible conversation. The other approach is the more nature oriented; he quotes the writer Tristan Gooley, who scorns the athletes of the first type, and encourages people to go out into the wilderness with the purpose of understanding rather than conquering it. While understanding the

attractiveness of both approaches, and knowing that those two can also be combined, Cox also suggests a third approach: frolicking. He suggests that frolicking comes naturally to animals, describing a seal who apparently came to play with him when he was surfing.

> The trouble is, frolicking doesn't have a very good image. Frolicking isn't cool. Nobody goes to work on a Monday and tells their colleagues they spent the weekend frolicking. But in truth, lots of people frolic. Doing laps of your local ski hill is frolicking; riding a mountain bike is frolicking; bouncing down a river in a kayak is frolicking. Most so-called extreme sports are essentially frolicking with toys. Our mountains, rivers and seas offer us a whole smorgasbord of sensory delights, but somehow, trapped between the competitive jocks and the earnest intellectuals, we're in danger of only ever using them for either slog or schoolwork (Cox, 2012).

As *marine wilderness* is not used as a metaphor the same way *wilderness* in general is, the discussion on it tends to concentrate more on actual wilderness locations and the visitors' wilderness experience. Marine and coastal wilderness features in travel descriptions, particularly in Scotland and the Arctic and Antarctic areas, as the location of stunning beauty. In the stories of adventurers and extreme sports, sailing, diving, and kayaking it often features as the ultimate challenge. In many of those articles, there is still a distinctive masculine association with the wilderness. The wives of the male adventurers are discussed as potential victims of their partners' reckless behavior, while Karen Darke's relationship status does not come up. The story of Guy Grieve is the ultimate example of the manly character, leaving his family and venturing into the wilderness to escape from the daily grind, and then struggling with his manly image when the sea seemingly defeats him. Roger Cox's article about frolicking in the wilderness perhaps anthropomorphises animals, but has a point about having a more "natural," less goal-oriented relationship with the wilderness.

4.2. *Daily Record*

The *Daily Record* was founded in 1895 and is currently owned by *Trinity Mirror*. It is a tabloid, and supports the Labour Party (*Daily Record*, 2007; Schofield, 2007). Until 2014 it was strongly against Scottish independence, but its stance became less obvious towards the vote (Calvert, 2014). The search for the word *wilderness* was performed for the database of *The Daily Record* on the 27th of October 2014*,* and a collection of 625 pages was constructed. 240 of the pages were from the "news" section, including:

- 128 from "local news"
- 48 from "UK & world"
- 27 from "Scottish news"
- 18 from "politics"
- 14 from "real life"
- two from "weird news"
- one from "business news"
- one from "crime"
- one from "Mail Opinion"

There were also 251 pages from the sports section, including

- 189 from "football"
- 43 from "local sport"
- five from "boxing"
- four from "tennis"
- three from "rugby"
- three from "golf"
- two from "other sports
- one from "motor sports"

In addition, there were:

- 91 pages from entertainment (51 from "celebrity" subsection, 16 from "TV/radio" 14 from "movies", eight from "music", one from "theatre", and one from "video games" subsection)

- 25 pages from "lifestyle" (14 from "local lifestyle", three from "outdoors", three from "family and relationships", two "from travel" one from "fashion and beauty", and one from "health and fitness")

- seven pages from the business section

- three pages from "opinions"

- three pages from "special features"

- two pages from "what's on" section

- one page from "in your area"

Again, the website archives' search function also included hits for words like *Wilder,* thus it must be assumed that not all of these sites actually contain the word *wilderness* or its derivatives.

4.2.1. Wilderness according to Daily Record

The software detected 575 uses of the word *wilderness* and 12 uses of *wildernesses.* 43 of these were proper nouns, while eight referred to *wilderness area/s*. Again, *wilderness* is often used as a metaphor. There are 70 references to *international wilderness*, 16 references to *football wilderness*, eight references to *political wilderness,* seven references to *musical wilderness*, five references to *speedway wilderness,* and three references to *sporting wilderness*, and *badminton wilderness* each, as well as several individual references to other metaphorical wildernesses. Russell Howard 'had years in the wilderness before *Mock The Week* happened' (English, 2010). Sufferers of myalgic encephalomyelitis were condemned 'to the medical wilderness' for years, due to the condition being trivialised and even ridiculed (*Daily Record*, 2010b). Changing the compositions of the Scottish football leagues could 'mean being sent to a part-time

wilderness where there is no cash' (Paterson, 2013). The Scottish national football team, meanwhile, has 'spent more time in the international wilderness than Bear Grylls' (*Daily Record*, 2012b). There are two references to *the wilderness years*, six to *voice in the wilderness,* and three to *cry/ing in the wilderness*. The Stagecoach boss Brian Souter directly compares the financier Colin McLean of Scottish Value Trust to John the Baptist crying out in the wilderness, after he advised him not to invest in the banks that were to collapse in 2008. A theological explanation follows:

> Rev Dr Doug Gay, a lecturer in practical theology at Glasgow University, said: "When John the Baptist appears in the New Testament, the Gospel writers associate him with a quote from the prophet Isaiah, who speaks about a voice crying in the wilderness. I think this is probably the central thing that Souter is using for a comparison. It is probably the idea that McLean is a voice crying in the wilderness. It is a kind of proverbial thing that is often used by writers or commentators… John the Baptist is also the one who announces Jesus's arrival, so comparing someone to him can be seen as saying, 'Here is the guy you have to listen to'" (Macdonald, 2013).

Scottish wilderness is again discussed and praised. Actor Martin Shaw calls the location of his cottage in south-west Galloway 'proper wilderness', noting that he is 'sensitive to electromagnetic interference and mental noise', and feels better out in the countryside (Fulton, 2011). Jean-Pierre Robinet, a Belgian who went from running luxury hotels to owning 'the most remote pub on mainland Britain' in Inverness-shire was 'becoming fed up with how the beauty was being ruined [in Ardennes] by empty cans and paper everywhere in the wild. But in Scotland, [he] found real, unspoilt wilderness' (*Daily Record*, 2012a). Scotland's 'massive expanse of peat wilderness' is praised by the artist Carol Taylor, who notes that they both 'have they own beauty and hide a wealth of flora and fauna', and are crucial in carbon absorption (*Daily Record*, 2010c). Geology professor

Iain Stewart will be examining 'how much of [Scotland] has been shaped by man, contrary to our perception of Scotland's landscape as natural wilderness' in a new BBC documentary series (*Daily Record*, 2010d).

Scottish wilderness is also again threatened by development projects. A 450-house development in Cowie is met by resistance by the locals, claiming that '[o]ur village is losing the only easily accessible, safe and frequently used wilderness area… we have, an area where our children can explore and lean how to respect and enjoy nature… Soon our village will be surrounded by pylons, existing farmland, walkways ripped apart by anti-social behaviour, gas extraction, a quarry, industry and now a housing estate' (Marjoribanks, 2013). In Holmehill, Dunblane, a landowner and the Homehill Community Buyout Group are in disagreement over the former's tree-cutting project. The landowner argues that '[t]he company [which he owns] has a right to manage the land which has been neglected for so many years that it is now a wilderness of tangled undergrowth, self seeded trees and garden and household rubbish… It would appear that [the Buyout Group] in fact want no development of any kind on the land and simply want it left as a wilderness' (White, 2013).

There are three uses of the word *windfarm* in the text collection, and 22 of *turbine/s*. Malcolm Best, a member of the Friends of the Ochils committee, is concerned that if the new wind turbine plans are approved, 'the scenic hills between Stirling and Perth will become "one giant wind farm" resulting in a disaster for visitors, hill-goers and local residents and "industrialisation" of the wilderness… [it would turn] Ochils into a landscape of wind farms rather than a landscape of beautiful hills with some wind farms' (*Daily Record*, 2011d). Roland Chaplain of Glenkens Sustainable Development Steering Group disagrees, noting that '[a] lot of people talk about the visual impact but looking

from a distance it actually enhances the total contrast between the wilderness and the inhabited area' (Gillespie, 2010).

Skye is introduced in a travel article as the place that 'offers beautiful and unspoilt wilderness with some luxury thrown in'. Skye is described as a wildlife paradise with seabirds, seals, deer, otters and pine martens. One can take a glass-bottomed boat to the island and 'almost see the mermaids'. The landscape is described as 'beautiful coral beaches', and 'wild mountains, stunning seascapes and the wide open spaces'. Yet fresh, local food is easily available, alongside 'superb accommodation' and a vast range of malt whisky. Films and exhibitions are available alongside hill hiking and loch swimming. Skye has 'something for everyone… rest and relaxation, the best of the wild outdoors, fascinating history, culture, heritage, and a touch of luxury for the final detail' (McFadden, 2013). Another example of a wilderness travel destination is New Zealand, particularly Piha and the Waitakere ranges, 'a stunning wilderness area'. The coast of Karekare is 'dramatic… huge waves pound the iron-black sand'. The experience is further improved by the *hongi* welcome of the Maori – pressing noses together – as well as fine dining in Auckland, a cruise on a 50ft yacht, and the shopping opportunities on Waiheke Island (*Daily Record*, 2010e).

The Polar Regions are again highlighted as prime examples of wilderness. 'It's probably as near to true "wilderness" as you're ever going to get and you just feel pretty insignificant in an area you know is about the size of the UK but that has nothing much in it except a few people and the odd polar bear', says the wildlife artist Darren Rees about the Arctic (White, 2010). In the meeting of Dumfries University of the Third Age Margaret Rhind describes her three-month cruise, which ends at the 'earth's last great wilderness… Margaret showed some splendid photographs of icebergs, penguins, and the stunning

Antarctic scenery. Her descriptions of the visit to this beautiful area enthralled the audience. The restrictions placed on visitors to Antarctica seemed very sensible to all' (Liptrott, 2010).

The 2011 BBC's Frozen Planet scandal is discussed, as the audience was 'fooled… into believing the footage was gathered by intrepid cameramen in the brutal sub-zero wilderness', but was in fact filmed in a wildlife park enclosure. The article quotes a viewer's comments online, assuming that a scene was filmed in a polar bear den in the Arctic, praising the bravery of the camera crew. The article also mentions another similar "BBC Attenborough collaboration" issue from 1997, where a polar bear den was in fact filmed at a German Zoo. A subsection titled "BEEB'S MAKE-UP DEPARTMENT" mentions two other cases, from 2011 Panorama apologising for 'likely' having faked a scene of boys testing Primark clothes in a sweatshop in India, and from 2007 BBC being fined £50,000 for allowing a visitor to pose as a Blue Peter competition participant (*Daily Record*, 2011c).

Human influence on wilderness areas is not always considered strictly negative. In the Dalzell Estate in Lanarkshire, 'a wilderness area of barren land [was turned] into orderly and landscaped park' in the 18th century. More recently, wildlife hides have been improved, the car park upgraded, and a flooded meadow restored 'to its original, natural state' as part of extensive restoration project. Stuart Housden, the director of RSPB Scotland, praises the estate for housing numerous species despite sitting 'cheek by jowl with a built-up urban area' (*Daily Record*, 2009a). In Kilmarnock, 'what used to be a neglected wilderness [has been transformed] into a garden', with schoolchildren now planting apple trees in the garden at the Dean country park (*Daily Record*, 2009d).

Sometimes wilderness can even take over, as in a case in Perth, where a blind pensioner's 'once pristine garden has been left to turn into "a wilderness"', and while the Perth and Kinross Council had promised help, 'no work can take place at the eyesore patch for THREE MONTHS for nature conservation reasons'. A Council spokesman notes that '[l]ocal authorities are prevented from cutting back hedges at this time of year by the Countryside (Scotland) Act 1981, which was further strengthened by the Nature Conservation (Scotland) Act 2004', thus the resident's hedge must wait until after summer (*Daily Record*, 2010a). In Bloom, offenders will help cleaning up the railway embankment near Burnside Station, in an 'agreement to begin to improve the "wilderness" that has grown up on the Dukes Road embankment' (*Daily Record*, 2011b). In Glasgow, an abandoned house is having a negative effect on nearby properties, as '[s]ome of the roof slates have fallen off and the garden has completely overgrown, it's a complete wilderness in there' (Dickie, 2012).

Ghillie Basan, 'the epitome of modern woman in many ways', is a single mother with a busy career as a cookbook writer, teacher, and workshop runner, living at the height of 1600ft in the Cairngorms National Park in an 'idyllic wilderness retreat'. In the winter, her children ski to school and she hauls her cooking ingredients up on a sledge. According to Basan herself, her determination to live and work in such complicated conditions even after being left by her husband, is due to 'growing up barefoot' in Kenya. In this 'remote yet stunning countryside while having the most modern of careers, Ghillie does survival like no one else' (*Daily Record*, 2009b). Another wilderness character is the PC Paul Barr, the only police officer working in the Loch Lomond and Trossachs National Park. The issues he has to deal with include wildlife crime, rescue missions, anti-social behaviour from drunken visitors, and speeding – '[e]ven in this wilderness speeding offences are common' (McQueen, 2012).

There are 23 references to John Muir, two of which refer to the Trust. A brief article gives an overview of his life (*Daily Record*, 2009c), while another introduces his great-grandson Michael Muir, who runs a charity in California helping disabled people 'enjoy the natural wonders of the world' (Booth, 2010a). Muir, who himself has multiple sclerosis, notes that his ancestor has been a big influence and inspiration in his life (Booth, 2010a). In other articles, John Muir's name is dropped in connection with Scottish walking trails and other traveling opportunities (*Daily Record*, 2013a, *Daily Record*, 2013b, *Daily Record*, 2013d).

Again, wilderness is also a location for real life drama and tragedies. 'A Cyclist ended up so far off track when he got lost while biking through a forest park that he had to be rescued by BOAT'. The boat in question being one of the Clyde Coastguard, after 'the dad-of-four had managed to call the emergency services to tell them he was lost in the wilderness', and located somewhere near water (McInally, 2011). David Austin's death is reported in *Daily Record* as well as in *The Scotsman*, as 'Mr Austin had travelled to the Highlands to embark on a year-long adventure where he planned to live rough in the wilderness, despite being urged to reconsider by family and friends'. The article notes that if he indeed died of hypothermia, he did so about half-an-hour walk away from the Rannoch train station (*Daily Record*, 2012c). The death of the 17-year-old British teenager in a polar bear attack in Svalbard is also covered (*Daily Record*, 2011a).

Scotland's wilderness is given credit for saving the comic book character Tintin from its author's right-wing, racist attitudes. After the earliest stories heavily characterised by racism, anti-semitism and Nazi agenda, 'there was a huge turnaround and this started with his Scottish adventure, the Black Isle', says Dr. Grove, the head of the French language department at the University of Glasgow. To the author Herge, 'Scotland was the most

exotic part of Europe. He saw it as the great wilderness, with whisky and men in kilts and stunning scenery. His Scottish adventure is the first time he treats the exotic land as different, but the same as himself'. Herge later went on to change his attitudes and publicly apologise for the first books. In the Tintin film of 2011, the sidekick Captain Haddock is given a Scottish accent, despite being generally thought to be English by the fans. According to Dr. Grove, '[h]e is well known for his love of Loch Lomond Whisky, and has a Scottish first name. When you consider how Herge thought of Scotland, then Captain Haddock could easily have been Scottish' (McIver, 2011a).

In movie and TV reviews, wilderness mainly acts as the backdrop of drama. In *The Hunger Games: Catching Fire*, the main characters are '[t]hrown into the artificial wilderness of the arena' to literally eliminate the competition (Edwards, 2013), and Wolverine, the 'depressed hero[,] rocks a Jesus look while living in the Canadian wilderness' (Bunting, 2013). Liam Neeson plays 'a man stranded in the wilderness with his work mates, battling to survive against both the harsh Alaskan conditions and the wolf pack on their trail' in *The Grey* (White, 2012), and a young girl is found 'buried in a small chamber in the wilderness', which leads to her discoverers becoming 'caught in a terrifying game of cat and mouse as they try to get her to safety' in *A Lonely Place to Die* (White, 2011). In *Year One*, two cavemen 'are banished from the tribe into the wilderness where they stagger from one chapter of the Book of Genesis to the next', witnessing different biblical events (Lauchlan, 2009).

Many aspects of the wilderness in *Daily Record* are similar to those of wilderness in *The Scotsman*. The metaphorical wilderness seems to be particularly popular in sports articles. It is interesting that in one particular instance of the phrase 'crying in the wilderness', an analysis by a theologian is included in the article. The Scottish wilderness, then, is again

treated with national pride. Not only does it need protection from development projects, it even rescues comic book authors from their own, harmful ideologies. In travel stories and advertisements, wilderness is best balanced with an access to luxury accommodation and meals. Wilderness is also - again - a place for the adventurers to test and prove themselves. This is also reflected in the article about the polar bear scandal, as it is implied that a viewer has been cheated to undeservedly praise the camera crew. Unlike *The Scotsman*, however, *Daily Record* has multiple articles in which wilderness is pictured as something harmful, invading the orderly, maintained environment. However, these instances usually take place in relatively densely populated areas, in which wilderness is unexpected.

4.2.2. Wilderness *and the sea in* Daily Record

There are 76 occurrences of the word *sea/s*, 23 of *ocean/s,* 5 of *marine*, and 49 of *coast/s* or *coastal*. Marine wilderness in the *Daily Record* is the kingdom of birds. As the winter approaches, the gatherings of dunlins, 'residents of our upland moors during the summer months but now taking communal refuge in the marine environment, may be compared with the starlings', with their ebbs and flows. Bewick swans come from 'wild and distant places such as Siberia and mostly winter in southern England and along Continental North Sea coasts'. Meanwhile, whooper swans' voices are 'rhapsody as opposed to rap [of mute swans], fluting and musical ... and wild. Everything about them recalls for me at least, a true sense of the wildernesses from whence they came' (Graham, 2010a). The swallows 'must take the rough with the smooth as they journey, battling through storms or skirting them, crossing mountain ranges, seas and deserts en masse and perhaps even living or dying as one' (Graham, 2010b).

A rather poetic description of the landscapes seen on West Highland Lines rain journeys notes that '[t]he line from Edinburgh to Aberdeen allows those who love the ocean the

indulgence of hours to gaze out over the North Sea', while seals can be seen in Kyle of Lochalsh, if one looks towards Skye and the Small Isles. The article also lists more terrestrial sights, such as 'the Rannoch Moor wilderness', Cairngorms National Park, and the 'lush valleys' between Aberdeen and Inverness. One can also take a train to North Berwick, and visit 'the five-star Scottish Seabird Centre overlooking the Bass Rock in East Lothian, home of John Muir'. (*Daily Record*, 2013d).

The Daily Record also has its share of adventurers. The 'polar adventurer' Anne Kershaw 'first visited the icy wilderness [of the South Pole] in 1985 with her adventurer pilot husband Giles', but after his accidental death she first turned his business 'into a respected airline', and later started a campaign group to save the South Pole (McIver, 2011b).

> There really is nowhere in the world like Antarctica, it's the most special and unique place I have ever seen. For me, a lot of my heart is there. My first husband is buried there and I have worked there for so many years that Antarctica is a part of me as well now. And it's important to me, and to the entire planet, because it is the last wilderness, it's spiritual, hostile and unknown and it's Mother Nature at her finest (McIver, 2011b).

Karen Darke is interviewed, as she is given the Vitalise Woman of Achievement 2010 award (Booth, 2010b). Ed Wardle 'survived 50 days in the wilderness [of Yukon] with only basic equipment', filming a document inspired by the life of Christopher McCandless who starved to death in Alaska. Wardle himself had planned to stay in the wilderness for 80 days, but had to pull out earlier than expected 'as his physical and mental state deteriorated' (Hendry, 2009).

I would visit the river every day looking for these big, red salmon. They just didn't turn up and by day 50 I'd just had enough. I was feeling flaky and shaky and spent half the time trying to motivate myself… I was eating one meal every two days. I was starving… At the time, I thought I was giving up but in hindsight, I think I was pretty strong in carrying on for that long… My love for the wild has only grown. The more you know about something, the more you can be in love with it. I would go back - but for two weeks and take a lot of food and a lot of friends with me (Hendry, 2009).

In *I'm a Celebrity, Get Me Out of Here*, the former topless model Sam Fox and TV chef Gino D'Acampo start their experience in the 'Australian wilderness' off the Gold Coast by swimming to the island, despite recent sightings of great white sharks (Young, 2009). The TV star Neil Oliver has to experience the dangers of the South Atlantic Ocean while filming *The Last Explorers*: 'I worried about hitting icebergs or containers that have fallen off ships, I worried about being swamped by massive waves, I worried about capsizing, I worried about drowning'. Neil McDonald, creative director for the factual department of BBC Scotland, notes that: 'Perhaps it is something to do with being a country on an island at the edge of Europe but numerous Scots definitely had a desire to go to far-flung places' (Holmes, 2011).

An article detailing water sports opportunities in Scotland praises the country's opportunities for coasteering ('travelling along clifflined coasts, scrambling up and down rocks, inlets and coves as waves crash into the rocks below, cliff jumping into the sea, and swimming with and against the tide'), diving ('[t]here are reefs, shipwrecks and wildlife to tempt divers to great spots such as Orkney, Eyemouth in Berwickshire and Oban on the west coast'), and power boating and RIB rides ('a great way to see wildlife such as seals, dolphins, birdlife and whales'). There are also plenty of opportunities for freshwater activities, such as canoeing ('explore the real wilderness in remote lochs, travel across the

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entire country through the Caledonian Canal or paddle along the popular Tay and Spey Rivers or lochs Lomond, Earn, Morlich or Tay') ("Get wet, wet, wet for the time of your life on Scotland's rivers and lochs," 2013).

There is somewhat less context with the references to coastal and marine wilderness in the *Daily Record* than there is in *The Scotsman*. The marine wilderness is a place to do things in, even more pronouncedly than the terrestrial one, even if in some cases the activity is just admiring the view from the window of a train. For the adventurers, be they celebrities or sportspeople, marine wilderness adds a whole new level of risk, with its opportunities for drowning and being eaten by sharks. In return, it offers its own kind of wildlife, with birds and marine mammals.

4.3. *The Herald*

The Herald, originally called the *Glasgow Advertiser* and founded in 1783, is the longest running national newspaper in the world (Terry, 2005). It had an audited circulation of 47,226 as of 2011 (Newspapers List, no date). It is currently owned by the Newsquest media group, and in the referendum it backed a 'no' vote (*The Herald*, 2014d). The website, which hosts *The Herald* and *Sunday Herald* is titled *Herald Scotland.*

The search for the word *wilderness* was performed for the database of *The Herald* on the 21st of January 2015*,* and a collection of 483 pages was constructed. This included 98 in news, with:

- 67 in "home news"
- 10 in "world news"
- seven in "politics"
- five in "crime & courts"
- three in "election"

- three in "environment"
- two in "transport & environment"
- one in "education"

It also included:

- 121 in "comment" (26 in "columnists", 18 in "letters", 16 in "obituaries", 14 in *Herald* view, ten in "*Herald* letters", 6 in "guest commentary", and three in "bloggers",)

- 95 in "sport" (31 in "football", 17 in SPL, ten in "opinion", 11 in "rugby" and "rugby union", eight in "golf", eight in "other sports", five in "tennis", four in "other sports news", two in "English football", two in "more Scottish football", one in "cricket", and one in "World Cup").

- 73 pages in "arts and entertainment" section (15 in "music", 13 in "film", 12 in "stage", eight in "non-fiction reviews, six in "film & TV reviews", five in "music features", three in "music reviews", three in "book features", three in "film & TV features", two in" TV and radio", one in "fiction reviews", one in "visual", and one in "more arts and entertainment news")

- 43 in "life & style" (22 in "outdoors/leisure", 14 in "travel & outdoors", three in "real lives", one in technology, one in "food & drink", one in "homes, interiors/gardens", and one in "travel")

- 22 in "books & poetry" (eight in "reviews", seven in "poem of the day", five in "comment & debate", and two in "interviews")

- 11 in "business" (four in "company news", two in "analysis", two in "corporate", and one in "farming", "opinion", and "personal finance" each)

- six in "politics" (three in "political news", two in "viewpoint", and one in "referendum news")

- two in "food and drink"
- two in poetry,
- one in blogs

4.3.1. Wilderness according to **The Herald**

The software detected 594 occurrences of the word *wilderness* in the collection. Approximately 55 of these are proper nouns, such as *Wilderness Brae*, where a fatal car accident took place in 2012 (*The Herald*, 2012c; Weldon, 2012a, 2012b), and 26 refer to wilderness area/s. There are also 20 occurrences of *wildness*. Some of the common metaphorical uses for *wilderness* are two references to *tennis wilderness* and *golfing wilderness* each, three references to *football wilderness*, 18 to *international wilderness*, and 17 to *political wilderness*. Other wildernesses also feature, such as the eloquent '[m]id-afternoon yesterday the General Assembly found itself lost in a wilderness of dense verbiage the like of which has not been seen since Fidel Castro in his pomp' (Taylor, 2010). There are also 24 references to *wilderness years*.

The Scottish wilderness again comes up often in the context of wind farms. A letter questions the wording of an opinion polling conducted in 2012:

> I am sure the poll would have given a very different answer if the question had been framed: do you support wind power or renewables generation that will result in your electricity bills rising two-fold to provide enormous unearned subsidies to large wealthy landowners and foreign companies and ensure that much of Scotland's wilderness will be covered in wind turbines? (*The Herald*, 2012d)

Ramblers Scotland calls for an increase of the Cairngorms National Park boundaries towards the west, to keep wind turbines away from the Monadhliath Mountains. The director refers to the region as 'the finest example in the UK of truly wild, unspoilt mountain landscape, akin to the wilderness areas of northern Scandinavia' (Ross, 2013c). Novelist and former ecologist Diana Gabaldon opposes the Talladh a Bheithe wind farm

on Rannoch Moor, where the TV show based on her books is being filmed. David Gibson, the Chief Officer of Mountaineering Council of Scotland, agrees:

> The immense success of [Gabaldon's] TV series shows how much people value our open landscapes and offer further evidence as to why we must not ruin what remains of our wild lands by turning them into industrial zones. Such places are at the heart of Scotland's cultural identity and history, they are essential for our recreation, well-being and enjoyment. And in economic terms they are absolutely vital for our film and tourism industries ("Outlander author condemns plans to build wind farm near Loch Rannoch," 2014).

Part of the debate revolves around what exactly counts as wilderness in the country. The chairman of SNH notes that: '[w]ind farms can be positive for certain species and, from some people's point of view, a well-designed wind farm can be positive in the landscape in aesthetic term', adding that 'Scotland's landscape is man-made and… "wild land" should not be confused with "wilderness"' (*The Herald*, 2012e). In Letters, Alastair Runcie proposes more National Parks to be established, including a region of the north-west which should be declared a National Wilderness Area, 'an area where even higher levels of conservation and preservation would pertain… This area of our beautiful little country has been described by some as "Europe's last wilderness"' (*The Herald*, 2014a). In response, Brian Chrystal notes that even these areas were once populated, and are now speckled by ruined steadings and villages. He suggests 'a more human approach to making our landscape', rather than perpetuating 'the wilderness created originally by climatic harshness and human clearance' (*The Herald*, 2014b). Taigh Chearsabhagh art centre in Lochmaddy features 'an image of the landscape as a lacework of words in Gaelic, Norse and English, naming all the lochs, islands and hills seen from Eaval'. These historic names

prove that although the area is often described as wilderness, 'of course it isn't' (McNeish, 2010).

The plans for a power line from Beauly to Denny across Cairngorm causes a lot of debate. In one article, it is described as 'like taking a razor blade to a Rembrandt' (*The Herald*, 2010a). Another notes that the 'parade of pylons' is the price Scotland must pay to realise the SNP's ambition to become 'the Saudi Arabia of green energy', (*The Herald*, 2010d). The decision to not reopen the Cononish gold mine is debated in the Letters section. The Chairman of Friends of Loch Lomond & Trossachs is happy about the decision, as the location is 'part of a scenically outstanding wilderness area popular with thousands of walkers and outdoor enthusiasts' (*The Herald*, 2010c). Others note that a wilderness area with thousands of visitors is an oxymoron in itself, and the myth of the unspoilt wilderness clashes both with the economic history and development of the area, and the ideas of the 21st century conservation, which, according to one writer, is 'a much more positive force, which seeks to understand the cultural and social significance of the landscape' (*The Herald*, 2010b). In a similar vein, '[t]urning Ben Nevis into a wilderness isn't easy when it gets 160,000 visitors a year', but Fran Lockhart, a property manager for the John Muir Trust, is trying anyway. Creation of new paths, potentially removing an aluminium pole used by climbers in winter, and trying to limit the amount of banana peels thrown away on the hill are mentioned as ways of trying to balance the wilderness and the visitors (Baynes, 2012).

A letter by a reader lists human causes for the overabundance of midges in the Highlands: non-native pine plantations with an acid soil blanket and no wind circulation, intensive sheep farming, removal of beetles and other midge eaters by gardeners and farmers, and the lack of bats, also a result of replacing oak and Scots pine by non-native species that do

not serve as roosting sites (The Herald, 2012b). A millionaire estate owner's plans to create a golf course are put on hold, and it is noted that for some people 'there is a wilderness element to Jura and the headline (of a golf course) doesn't fit with that, no matter how well it's landscaped', despite the fact that the course 'was to be routed in two loops with spectacular sea views and an emphasis on a design that would cause minimal disturbance to the coastal landscape' (Campsie, 2013). However, Donald Trump's golf course is built and opened, despite protests and the Scottish Wildlife Trust requesting that the golfers invited to the opening boycott the holes built on the most environmentally sensitive areas. The former Ryder Cup captain Colin Montgomerie does not sympathise: 'There has been a lot of unfortunate adverse publicity and I can't understand why. This is a development for temporary and permanent employment in the area. It's also good for tourism and everything surrounding it is fantastic for the area. I can't understand the small-mindedness of some people that can complain about this as it is simply superb. It could only happen in Scotland'. (Rodger, 2012.) The conflict over the tree-cutting project in Holmehill, Dunblane, also discussed in *The Daily Record*, is mentioned to have required the presence of police (Harrison, 2013), while the community landowner of South Uist expresses fears that the Wild Land designation plans would have a serious impact on the community's ability to reverse the decline of population and regenerate the local economy. 'If Scotland continues to be designated as fit for nothing but conservation, a new clearance of rural Scotland will take place' (Ross, 2013a).

In articles discussing other aspects of the Scottish wilderness, the combined forces of the John Muir Trust and Borders Forest Trust fail to purchase a wilderness estate in an auction, in an attempt to rescue it from potential threats from energy and forestry projects (Donnelly, 2012b). The potential effects of the Disney animation *Brave* to Scottish tourism are briefly discussed in an article about the Glasgow Film Festival of 2013.

However, '[*Brave's*] evocation of the Scottish landscape was beautiful - but its actual story, which was fun, could have been set in any medieval country in Europe… And when you think of the beasts of Scottish wilderness in past times, bears do not leap to mind' (Miller, 2013). Meanwhile, the charity Trees for Life, has planted a million trees in the Caledonian forest, and plans to plant another million to combat deforestation, climate change, biodiversity loss, and other environmental problems. The executive director says there could be economic benefits as well: 'With wildlife tourism already generating an estimated £276 million a year for the Scottish economy, it's clear that restoring the Caledonian Forest and its unique wildlife to an inspiring, spectacular wilderness region of 1000 square miles could have significant economic as well as environmental benefits for the country' (Ross, 2012b).

Sir David Attenborough and Ewan McGregor feature in a series of BBC Scotland programmes about the Scottish 'wilderness and wildlife' (*The Herald*, 2013a, *The Herald*, 2013b). Iain Stewart's *Making Scotland's Landscape* is also discussed, with the man himself summarising the current wilderness fad and its conflicts:

> What is our landscape for? Is it for visitors or the people who live there? The reality is it's for both. It's this lovely dichotomy between a landscape of delight and a landscape of use… Right now wildness and wilderness is really in vogue – wild places, wild swimming and wild food – but this programme is a kind of counterweight to that. As one crofter said to me, there's no such thing as wilderness. If you want wilderness go to Alaska (Allan, 2010).

Some articles illustrate the differences in our views on different animal species in the wilderness and in urban environment. Esther Woolfson's column ponders how the

fascination with wilderness affects the opinions on the Scottish city fauna. She notes how certain species of animals are idealized and approved as 'iconic' and 'charismatic' – or alternatively kept as pets – while the rest are treated as pests. 'These attitudes are indicative of a mindset that views cities as lesser places, ones already so far contaminated by modern life that our moral, spiritual and mental wellbeing must lie elsewhere, in countryside, empty places, in elemental "wilderness"' (Woolfson, 2013). Paul Lister's Wilderness Reserve, with its plans for wolf introduction, wins the right to keep boar and elk. A local councillor notes: 'There were concerns from our access officer about the right to roam, but our legal advice was that we were to consider the application under the Dangerous Wild Animals Act 1976, and that act only' (Ross, 2010a, 2010b).

An article by Scott (2014) discusses Scotland as seen from the back of a motorcycle. An experienced bike tourer Philip Baechtold describes the stunning views, such as Glen Torridon, which 'meanders through a wilderness with scenic lochs, snow-covered peaks, hills overgrown by heather, and patches of forests interspersed with rocks and cliffs'. Such environment, combined with 'imposing mountain landscapes like Glen Coe and alpine panoramas like Skye, that interchange with the most picturesque coastlines', make Scotland rank above any other location he has visited, including the Japan Alps, the great canyon lands of Utah, as well as Nevada and the Desatoya wilderness (Scott, 2014). The Cairngorms has its own article, describing both the stunning views, and the tragedy in the autumn of 1971, when two teenager groups were caught in a blizzard on the plateau. One of the groups made it to the shelter of the Curran Bothy, while the other was forced to hunker down on the moor for two nights, leaving six people dead. The following inquest led to dismantling of two high level huts, as they were considered to 'lull the unwary into danger' by their existence. The article also introduces Patrick Baker, who has collected the legends and 'hidden narratives' of the Cairngorms, such as that of the "Big Grey Man", a

lone mountaineer's feeling of being followed, into a book (McQuillan, 2014). Knockinaam, despite being just a couple of hours south of the central bet, is described as 'excitingly remote', and '[w]ith grass underfoot and limitless views, [feeling] like true wilderness'. The walk on the coastline of the Rhinns of Galloway features a rugged coastline, strong winds, seabirds, and 'startling bangs of the sea as it smashes into the rocks'. The walk from the Knockinaam Lodge finishes in the fishing village of Portpatrick, with 'characterful gift shops, cafes and benches overlooking the bay'. Unfortunately, the cafes 'are too full of Hyacinth Buckets – middle-class, middle-aged Englishwomen chattering 19 to the dozen… to enjoy a coffee' (Devine, 2011).

The Herald also discusses the wilderness' healing properties. 'Wilderness therapy' is presented as a treatment for the behavioural problems of children, particularly those caused by too much electronics and too little unstructured imaginative play:

> The thinking is that if we're naturally overawed by the vastness of, say, a Highland mountain range, it's hard to be angry or aggressive. It puts problems into perspective, shows that there is something bigger – and, importantly, tougher – than the individual. If venturing into a wilderness area also means sleeping under the stars, lighting fires, handling knives and catching or finding your own food, so much the better (Didcock, 2013).

Meanwhile, Venture Trust's Next Steps programme helps women with repeat convictions by taking them to wilderness journeys, taking 'participants away from the influences, behaviours and stresses of their usual environment into rugged, outdoor Scottish surroundings that encourage reflection, learning, challenge, and discussion' (Naysmith, 2014). The project also received £95,423 from Comic Relief in 2012 (Nutt, 2012). The

Branching Out programme of Forestry Commission Scotland helps people with mental health issues by introducing them to their local woodlands and build their confidence by undertaking conservation activities and learning wilderness survival skills (Naysmith, 2012).

Ghillie Basan is introduced in a *Herald* article much in the same vein as in *The Daily Record,* although *Herald* article concentrates somewhat more on the consequences of her divorce. It is however noted that the guests to her cookery workshops 'regard it as a wilderness retreat and stay in a converted byre'. Having to bring shopping up by sled, and her children having to ski to school, are mentioned as a consequence of the year's harsh winter (McFadden, 2010). The Pocock family, in turn, live without electricity in Inverness-shire, 'off the grid on the edge of one of Scotland's last wilderness areas'. The parents keep livestock and the children do homework by candlelight. The Beauly-Denny electricity pylon line now passes just four miles from the farm, and Mrs Pocock lobbies for getting access to the electricity. 'I would have been against [the pylons] regardless of whether I had electric or not, but the fact that I don't have electric just makes it even worse for me' (Swarbrick, 2013). Patrick McGlinchey, a survival expert, explains what is like to survive in the wilderness, and advice on how to do it. Finding clear water, food and shelter are covered, with a notion that the Scottish shorelines are a great place to find nourishment. It also benefits from the lack of insects and venomous snakes, common in the jungle (McQuillan, 2013).

John Muir has 57 hits, with 22 referring to the John Muir Trust. His spot in the California Hall of Fame is discussed on the first John Muir Day in 2013. *Herald* notes that '[w]e want to reflect the glory of this champion of wilderness, but we exploit the land of his birth for commercial gain'. It is noted that despite all the wind turbines built across the landscape,

'eroding the remaining places where nature might flourish, and where people can find peace, beauty, clean air and adventure', carbon emissions are still rising, more oil than gas is burned and new oil fields opened, and consumerism rules the economy. 'What would he have made of the current assault on wild places and open spaces in the land of his birth', is asked again, followed by the notion that due to the long coastline, 'Scotland's contribution to the fight against climate change might be better focused on unleashing the immense power of marine energy rather than sacrificing large chunks of precious, finite wild land'. After all, 'we cannot build wilderness' (Wright, 2013). Muir is also criticized for making 'a bargain with the devil – [Muir] believed that if you gave people access to the wilderness they would share his feelings for it and look after it… He thought that others would automatically share his passion for wildness and be similarly affected by it. He got that one badly wrong. Mankind has always raped and pillaged wilderness for his own ends, and continues to do so' (Taylor, 2009).

A Scottish man disappears in the Turkish wilderness, in a search for Noah's Ark (Watt, 2010). A missing 73-year-old walker is found near Loch Nevis thanks to a note found in a bothy (Ross, 2012a). The plans for centralisation of the Scottish police force, and consequently mountain rescue, cause concern, as the leader of Glencoe Mountain Rescue Team notes: 'Local knowledge is everything in mountain rescue, and that is lost if control is centralised… I know of one occasion when a central control tried to talk climbers down off a mountain, but sent them off in completely wrong direction into a wilderness' (Ross, 2011). The story of a British boy killed by a polar bear in Svarbald is covered in *The Herald* just as it is covered in *The Scotsman* and *Daily Record* (M. Williams, 2011). A murderer can no longer pinpoint where in the Saddleworth Moor he buried the body of his victim in 1966, despite a journalist's claims of having received a letter where the location is described: 'What calibre of "reporter" would believe in the existence of a letter capable

of identifying a spot in a yearly changing wilderness?' (*The Herald*, 2012a; Leask, 2012). The body of another murder victim is searched for in 'remote wilderness between Tyndrum and Inveraray in Argyll' (Donnelly, 2012a). The bodies of two men are discovered in the summer of 2013, the having gone missing in March and April. 'It was as though nature had finally decided to release her last winter grip on those who paid the highest price for their love of Scotland's hills', notes the journalist (Ross, 2013b). A woman freezes to death in the 'remote wilderness of southern Utah' as his boyfriend goes on alone in an attempt to get help, eventually getting rescued himself (Martin, 2003). Raoul Moat, also discussed in *The Scotsman*, is revealed to have shot himself after six hours of negotiations with the police and two Taser shots, leading to an investigation on the actions of the police. The IPCC is also said to be looking into how Moat, who 'loved the outdoors, but was hardly an SAS survival expert' managed to hide for so long (Hamill, 2010; Hamill and Leadbetter, 2010).

In the film *The Last Great Wilderness* a jealous man on his way to Skye to burn down the house of his ex-girlfriend's new partner accidentally ends up in 'a very unusual guest house. Part holiday retreat, part hospital, part cult, it's populated by damaged individuals on the run from their pasts'. The movie plays 'on the sinister side of the pastoral idyll… the combination of claustrophobia and isolation, the sense of a place abandoned to its own logic and morality, is well maintained' (McGill, 2003). In the opera *Hagar In The Wilderness* tells the Old Testament based story of Sarah's handmaiden Hagar, who carries Abraham's child but is cast out when Sarah becomes pregnant (Molleson, 2013). The Scottish band *Turning Plates'* album *The Shouting Cave* explores 'the effect of the internet on society… as a wilderness into which everyone is born before having to discover new ways of interacting' (Morrison, 2014). The book *The Last Wolf* by Jim Crumley presents a fictionalised version of the extinction of wolves in Scotland, emphasising the 'bad press'

the animal has received across the continent, and arguing 'for a wilderness which does not put the requirements of humans first, but includes the top predator's "edgy presence"' (Cunningham, 2010). In the book *Caribou Island* by David Vann '[t]he frigidity of Alaskan weather is mirrored by the emotional temperature of the characters… The events and language are often as bleak and beautiful as the ice-choked wilderness backdrop' (Waters, 2011). *The Herald* also features a "Poem of the Day" section, with many of the selected poems featuring wilderness. The last verse Gerald Manley Hopkins' *Inversnaid* is mentioned to be much quoted: 'What would the world be, once bereft / Of wet and of wildness? Let them be left, / O let them be left, wildness and wet; / Long live the weeds and the wilderness yet' (Duncan, 2012).

Wilderness in The Herald appears to be very political. However, many of the writers, including the readers writing in, seem to be very aware of the fact that even the most remote areas of Scotland have been touched by human presence. Yet there is strong opposition towards the aesthetic disturbance of wind turbines, electric pylons, and golf courses. Even in non-wilderness, people don't want to see the landscape disturbed. Energy production and tourism are both seen as important sources of income, but the former seems to be threatening the latter.

The healing properties of wilderness are also emphasised. They seem to be based primarily on the awe-inducing landscape that encourages reflection and discussion, as well as learning new practical skills.

4.3.2. Wilderness and the sea in The Herald

There are 68 uses of the word *sea/s* in the collection, 11 of *ocean/s*, six of *marine*, 57 of *coast/s* and 14 of *coastal*. These numbers exclude proper nouns. While the state of the

coast comes up often in the wind farm debate, the marine environment has its own specific environment vs. development issues. An oil discovery near the coast of Shetland causes concerns among environmentalists, with the senior climate campaigner at Greenpeace noting: 'The Atlantic frontier off the coast of Shetland is one of the most unique, pristine, areas of wilderness in the UK, and home to unique deep water corals and virtually a whale motorway. The idea of drilling there at greater depths is questionable in the extreme' (Deborah Anderson, 2010). Greenpeace activists also scale the sides of a Cairn Energy's oil rig off the coast of Greenland (Chris Watt, 2010). The case of Andre the seal, binging on salmon in the River Leven, illustrates the contradictory relationship we have with the marine life. The SSPCA are trying to catch and relocate him, the Loch Lomond Angling Improvement Association plan to put him down, and the public love him. The author of the article discusses the popularity of the seal – 'endearingly mammalian' but at the same time 'mysteriously marine' – from the selkie legends to the anti-clubbing protests. The chairman of the Loch Lomond Angling Improvement Association notes that he is no keener to kill Andre than anyone else, and notes that the seal's unfortunate presence is due to failed fisheries policy. He lists the depletion of the deep-sea fisheries, the general lack of in-shore sea fish, and the birds contributing to fish depletion as reasons driving the seals into the mouth of the River Leven (Cunningham, 2003).

The Scottish coastal wilderness is highlighted as a national security issue in a pre-referendum article quoting an Icelandic report on the defense possibilities of independent Scotland: 'Although more thickly populated than most Nordic nations, Scotland would share the strategic challenges of a long indented coastline, communications stretched across wilderness areas, and territorial waters containing important resources to protect (oil, gas, fish)' (Leask, 2013). The coasts also offer special opportunities for leisure activities. An article listing '10 things to do across Scotland this weekend' mentions,

among other things, a seafood festival, Shetland Nature Festival with opportunities for snorkelling and sea cliff climbing, and Dundee Science Centre's exhibition introducing Antarctica, including the under-ice environment (Grierson, 2014).

The sea features in fiction as well. *Waves* by Jonathan Raban 'becomes a compelling narrative of his two-year-old daughter Julia's evolving relationship with the wilder Pacific: On the second day, she stood her ground, scowling, frog-eyed, at the waves. It was late afternoon, and the tide was on the ebb. She stared the sea down'. The author himself appears to be 'happiest at sea' as he writes: 'I never fly a flag, except under official duress, preferring to think of the boat as an independent republic; liberal-democratic in temper, easy-going in its manners, bookish in its daily conversation' (Tom Lappin, 2010). In Dave Eggers' *Your Fathers, Where Are They? And The Prophets, Do They Live Forever?* a number of people are kidnapped and kept locked up in an abandoned military base, by 'a roaring sea nearby'. The reviewer notes that this setting is made perfectly clear in the text, despite that the novel is told entirely in dialogue (Goring, 2014).

4.4. Conclusion

The image of wilderness in the papers is somewhat broader than in academic literature, but some common themes emerge. At first glance, it seems that the concept is rather contradictory. The metaphorical use of the word is mostly negative in tone, as it tends to indicate disappearance, obscurity, uncontrollability, or wrong choices. For those who have been worn out by the rat race, however, disappearance to the wilderness may actually be a remedial choice. Guy Grieve is the extreme example, but for many others especially with mental health issues, a structured, supervised wilderness course may have beneficial effects. People like Karen Darke and Michael Muir prove that being able-bodied is not necessary for wilderness access, if other resources are available.

In Scotland, where the natural areas are torn between energy production and conservation, the discussion easily becomes very political, opinionated, and black-and-white. For some, the untouched wilderness landscape of the Highlands is both an important national characteristic and a source of income through tourism – John Muir's name is shamelessly used to back up these arguments. For others, the whole idea of wilderness is a fallacy, as the areas have been under human influence for a long time, and the people using the concept as an argument are misled idealists who want to hinder Scotland's economic development.

There is also a negative side to wilderness, "too much" of a good thing. If wilderness protection policies force people to move away from their homes, or if untrimmed wilderness takes over urban gardens, it is harmful and counterproductive. Opinion on animals in the wilderness is not entirely straightforward: Big, charismatic animals are understood to be essential to the wilderness spirit, but their risks are also acknowledged. Wolves are dangerous, or at the very least restrictive if fenced in, and seals compete with humans on resources.

Many of the discussions also highlight the power relationships in the society. There is a real fear that the authorities use the wilderness designation as an excuse to prevent people from living their lives and earning their livelihoods. On the other hand, the same authorities are feared to exploit the vulnerable, dwindling wilderness for financial gain, leaving people without their refuge. The chance an individual has to leave everything behind and head out to the wilderness is discussed in terms of physical fitness and family relationships, but less so in terms of money. And while the wilderness is often portrayed as very traditionally masculine, it is not entirely closed off from women or people with

disabilities.

Wilderness can also strip a person of her or his power and control, or return some of it. The line between the two is thin; a successful wilderness adventure brings physical powers, a sense of control, happiness, and perhaps new knowledge, while a failure brings danger, often with a need for rescue, and consequently powerlessness. Only for dangerous criminals does disappearing in the wilderness bring more power.

There is something particularly wild in the Polar Regions. While all wilderness areas that receive special descriptions are characterised by harsh conditions, the stunning landscape, and the presence of animals, the complete lack of even historical presence of humans make the Arctic and the Antarctica extra special. Yet their fragility is well acknowledged, and the demands to continue restricting human presence mostly supported.

The dangers of wilderness become apparent in the tragic events. Death by accident, often overexposure, is common, but wilderness is also the realm of murderers, to run from the law and to hide the bodies. Big events, such as the hunt for Raoul Moat and the polar bear attack on Svalbard, are reported on all the papers.

Marine and coastal wilderness comes up side by side with the terrestrial kind in the debates on energy production and other development projects. Fishing adds another dimension to the exploitation versus conservation debate. As for specific wilderness locations, the roaring sea adds another dimension that contributes to the sense of awe and danger. It also has its own legends, with mermaids, selkies, and shipwreck stories. The people who face and embrace the wilderness are hailed as heroes, and their most difficult battles often take place at sea. The coast of Scotland also offers new exercise opportunities for those who are

not venturing quite as far into the wilderness. Whether or not the sea is in fact wilderness is not questioned, instead it seems to be the ultimate wilderness.

So what is real wilderness in these newspapers? Aesthetic features certainly seem to play a big role, with wilderness described as "beautiful", "spectacular", and "breathtaking". Equally, it is "desolate", "rugged", "untrimmed" and "rough". Difficult conditions and the presence of wildlife – particularly the charismatic type – seem to be essential. Scottish wilderness is also "threatened" and "shrinking". Equally important features in defining wilderness seem to be its effects on people. True wilderness heals, and teaches people about themselves and their relationships with others. It is both calming and threatening, and it gives the opportunity for adventure and heroism. As for the research questions, we can see that there certainly are different definitions and understandings of the *wilderness* concept among stakeholders. Some of the reactions on the development plans of the wilder areas of Scotland suggest that people are nervous about their own position under the law. These findings and their implications will be addressed in Chapter 7. The next chapter will examine the use of the *wilderness* concept in legislation and policy, and compare the findings to those made in this Chapter.

5. WILDERNESS AND THE SEA IN POLICY AND LEGISLATION – A DISCOURSE ANALYSIS

After analysing how *wilderness* is used in newspapers, attention was turned to legislation and policy texts. This chapter discusses the use of the wilderness concept in Scottish, British, and EU legislation and environmental policy. Searches for the documents containing the word were performed at the UK government legislation website (legislation.gov.uk), the Scottish Government website (www.gov.scot), the Scottish Natural Heritage site (www.snh.gov.uk) and EUR-Lex (eur-lex.europa.eu).

The same word search was performed on the websites as was done for the newspapers in Chapter 5. The material recovered includes a range of types of documents, including actual pieces of legislation and policy as well as consultation responses and reports, working papers, briefings, and other documents relating to the policy processes. The majority of these documents discuss terrestrial wilderness, highlighting the terrestrial focus in the wilderness discussion and policy. They are however important to understanding the interpretations of the concepts of *wild* and *wilderness.*

This chapter will also take a look at the Core Areas of Wild Land Project (Chapter 5.2.2.1.), which is an important part of Scotland's wilderness – or wildness – policy, and the Scottish MPA network (Chapter 5.3.), which is equally important for the Scottish marine areas, especially areas with limited human influence.

5.1. Scottish and British Legislation

Scottish legislation does not use the word *wilderness*. A search for the word *wild* was performed for the Acts of the Scottish Parliament on the 24th of February 2015, producing

12 hits. Two of these were from 2002, two from 2003, one from 2004, one from 2005, two from 2006, and one from 2008, 2009, 2010, and 2011 each. However, the word *wild* in these Acts is a prefix, used in contexts such as *wild mammals*, *wildlife*, and *wild fauna*. *Living wild*, *to the wild*, and *in the wild* are also used.

The Marine (Scotland) Act 2010 Part 5 details the Scottish marine protection and enhancement rules. The Scottish Ministers are empowered to establish Nature Conservation MPAs, Demonstration and Research MPAs, and Historic MPAs. The appropriate purposes are conserving flora or fauna, marine habitats or habitat types, or features of geological or geomorphological interest. Social or economic consequences of such designation are to be considered, and the public is to be consulted. No reference to the possible social services of an MPA is made.

In British legislation, there are seven pieces with the word *wilderness*, one from 1989, two from 1990, one from 1993, one from 1998, one from 1999, and one from 2008. In all but one, these are references to special locations, with *Wilderness* a part of the location's proper name (such as Wilderness Brae and Wilderness Lane). The one piece of legislation that refers to actual wilderness, The Antarctic (Amendment) Regulations 2008, refers to the Antarctic Specially Protected Area No. 140, Parts of Deception Island, South Shetland Islands, as 'a unique Antarctic island with important natural, scientific, historic, educational and wilderness value'. Of the twenty restricted areas specified in the legislation, Deception Island is the only one with a reference to wilderness values.

5.2. Scottish policy

To study the use of wilderness concept in Scottish policy, a word search for *wilderness* was performed at The Scottish Government website (www.gov.scot) and the Scottish

Natural Heritage site (www.snh.gov.uk). The search on the Parliament site resulted in 33 websites and 29 .pdf and .doc files, from 1989 onwards. The SNH search resulted in 14 webpages and 75 .pdf documents.

5.2.1. The Scottish Government files

The draft of *Community landownership; Rediscovering the road to sustainability* by McMorran and Scott (2013) discusses the issue of cultural landscape vs. wild land in community land management. A quote states:

> "Nothing annoys local people more here than to hear North-West Sutherland being described as a last great wilderness... it's a mis-managed landscape and it looks the way it does because of what we did to it... everywhere you look you see evidence of a history of people being here... it's not a wilderness" (community director in McMorran & Scott 2013, p.23).

As a proposal for two to five wind turbines within a National Scenic area was discussed, '[r]espondents argued that long-term "local" residents were supportive, while retiring inmigrants [sic] or "wilderness" advocates objected' (McMorran and Scott, 2013, p. 24). The chapter suggests that while community landownership projects are not clear on sustainable development outcomes, they may lead to new approaches on nature and sustainability, 'away from the idea of a "preserved wilderness" towards one of the "working wild" where active engagement with, and sustainable consumption of, the environment plays a key role in local development' (McMorran & Scott 2013, p.48). The Review of Environmental Governance (Kay, 2007) notes that 'it should be borne that the typical national park in other countries is often a wilderness area, the Scottish national

parks have to deal with issues arising from having significant numbers of residents within park boundaries as well as strong tourism interests and influences' (p. 24-25).

The Cairngorms Campaign's response to the Consultation on Permitted Development Rights (no date) quotes *The Future of the Cairngorms* by Curry-Lindhal, Watson and Watson, which states that:

A fragile ecosystem, it can withstand very little human pressure. This view does not arise from any desire to exclude people; it is dictated by the nature of the climate and terrain themselves. It is for this very reason that the management of the area as a wilderness with a low level of human use dovetails with the two other main land uses - water catchment and the protection of wildlife sensitive to disturbance and trampling (The Cairngorms Campaign, no date, pp. 3–4).

The protection of wilderness, according to the consultation, is not the only goal. A former case from the Cairngorms is cited, where increased trampling led to loose gravel, which was spread by the wind to damage even more extensive areas.

In another consultation response to the Agricultural Holdings (Scotland) Act 2003, M. V. Armstrong answers to question on whether the references to the 'two man unit' in Schedule 2 (Grounds for consent to operation of Notices to Quit a tenancy where section 25(3) applies) should be replaced with 'viable unit':

N/A. Where is the viability of the ravages of clearfell and no employment for the "two man unit" test on commercial afforestation land of Forestry Commission or any planted land, formerly a viable hill farm holding? Compare a married man shepherding 25 score hill ewes or with a single man 37+ score hill ewes on an extensive hill holding... now

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left to rank wilderness devoid of people and wildlife thanks to Government policy supporting Forestry Commission neglect and abandonment of many thousands of acres in Galloway alone (Armstrong, no date, p. 4).

The Scottish Government's Land Reform Review Group ran a Call for Evidence between 4 October 2012 and 11 January 2013, as a part of an ongoing data collection and review. CKD Galbraith in its response discusses the community management model, noting that in rural communities an 'element' might try to acquire land and assets for business and development purposes, while another 'equally vehemently may wish to focus on protecting the ecological value of the land, preserving its wilderness qualities, tending its landscapes and expanding native woodland'. This conflict may then hamper decision-making (Younger, no date, p. 6). Scottish Environment LINK (n.d., p.3) in its response states that:

> Environmentalists and conservationists do not seek, generally or widely, to "re-establish wilderness" or "reclaim all land from human use", as has been sometimes claimed - but we do seek to ensure that human land use respects the ecosystem and biodiversity, together with our landscape, cultural and historic legacy, and that the land is sustained for future generations.

In his response, McKenzie Hamilton (2013) refers to Fraser Darling's works *West Highland Survey: An essay in human ecology* and *The Natural History of the Highlands and Islands*, noting that:

> Contrary to the commonly held idea of Scotland as an unspoilt and pristine wilderness, these works (particularly, the first) set out the evidence for a native ecosystem where once responsible community stewardship had played an integral role, but which now

was suffering terribly from centuries of large scale neglect or profit / leisure motivated abuse by large estates (McKenzie Hamilton, 2013, p. 3).

A presentation on health benefits of the natural environment by Williams (2011) lists 'encouraging the use of wilderness areas for therapeutic activities' as one of the ways to use the natural heritage as a 'pathway to health' (F. Williams, 2011, p. 8). The Scottish Government document *Funding to prevent homelessness* (2013) notes that the Venture Trust has been given £60,000 'to help young people who have been left homeless, build on their self-esteem and independent living skills through outward bound courses and wilderness training'.

Multiple documents note the role of wilderness in Scottish tourism. *A New Strategy for Scottish Tourism* (2000, p.11) refers to 'unspoilt natural environment with space/big sky" and "humanised wilderness'. *The Economic Impact of Wildlife Tourism in Scotland* by International Centre for Tourism and Hospitality Research (2010, p. 7) suggests that 'Scotland's unique and diverse topography coupled with its biodiversity, charismatic wildlife, feelings of space and wilderness and lack of large populations are its most obvious strengths and unique selling points'. *The Economic Impacts of Wind Farms on Scottish Tourism* by Glasgow Caledonian University (2008, p. 7) recommends that '[t]he wilderness nature of any untouched areas should be publicised'.

Multiple documents also address the issue of energy production. West Lothian Council's consultation response on a windfarm proposal at Fauch Hill Colzium, West Calder, (2012) lists comments by key consultees, such as Neil Findlay, MSP, who objects 'because of the cumulative effect the development would have with other windfarms in the vicinity, and the adverse effect on an area of wilderness and rugged beauty in the central belt; that it

would have an adverse effect on tourism; that there requires to be a national spatial plan, and it is contrary to planning policy' (*Consultation response on a windfarm proposal at Fauch Hill, Colzium, West Calder*, 2012, p. 10). The Directorate for Planning and Environmental Appeals' report to the Scottish Ministers on the proposal for a Beauly-Denny overhead electricity transmission line (2009) notes that '[t]he "wilderness landscape" through which the proposed line would pass is important and, in many ways, the key to the local economy', and that tourism is the only 'substantive source' of income for the Hilton Estate, which maintains the wild land in the area (Jackson, Dent and Brian, 2009, p. 29).

The report of a public local inquiry on a proposed windfarm at Clashindarroch Forrest in Abredeenshire (2006) quotes Strathbogie Community council, which noted that "the area [around Srathbogie] is valued as a wilderness landscape, which so many wind farm proposals would overload" (Moody, 2006, p. 16). It also describes one of the potentially affected areas in Cabrach:

> Human intervention is less obvious in this area, which tends to be perceived as wilderness. Open upland is generally highly sensitive to wind farm development, reducing to medium with proximity to the forest. It is also highly valued, as the Area of Great Landscape Value development plan designation shows. In theory, the landscape could still absorb wind farm development and arguably, that would enhance the perception of an open windswept wilderness, but the perception and value placed on features like the skylines and other widely visible landmarks usually prevents that. The proposal would not compete with landmark topography or with Cabrach village, on the edge of the open upland, so that the perception of wilderness is not so strong (Moody, 2006, p.65).

As for comments by third parties, the report notes that '[m]any Glass residents moved to the area specifically for its rural wilderness character, and this life choice risks being ruined by what would become the largest wind farm in the UK' (Moody 2006, p.83). Additionally, Bob Graham has argued that '[t]he wider Aberdeenshire and Moray area is subject to considerable pressure for wind farm development… Cumulative impact is linked to the distance travelled before meeting a giant industrial installation in the countryside. The more that appear, the more the countryside experience, appearance, and enjoyment, i.e. the perception of space and wilderness, is lost'. This is considered to be harmful to both the environment and the local economy (Moody, 2006, p.86).

In a similar vein, the refusal of consent for the construction of the Glenmorie wind farm, from the Energy and Climate Change Directorate to the Glenmorie Wind Farm LLP, refers to 'the significant detrimental impact the proposed development would have on the wilderness qualities of wild land in the area around the development'. It also notes that 'Ministers have considered the Reporter's conclusions regarding the impact on the wilderness qualities of the area, which remain relevant, in the context of the new [statement of public participation] SPP and the fact that the prospective site now sits largely in a Wild Land Area in SNH's 2014 map' (Coote, 2014, pp. 5–6).

In terms of marine wilderness, *The Advice Note: Marine Fish Farming and The Environment* 2003 by The Scottish Executive Environment and Rural Affairs Department notes that among other factors, 'the impact on the sense of wilderness that can be experienced in some areas' should be described in the landscape and visual impact assessment of a proposed aquaculture project. The acceptability of the impact and the potential remedial measures should also be described (The Scottish Executive

Environment and Rural Affairs Department, 2003, p. 21). A separate chapter discusses the effects on wild land, noting that:

> Areas that are distant from settlements and obvious human activity often have qualities of remoteness that may be reinforced by the lack of accessibility. These qualities are increasingly rare and frequently contribute significantly to both the scenic quality and the landscape character of a place (The Scottish Executive Environment and Rural Affairs Department, 2003, p.22).

The value of these wild land areas is noted to be linked with their inaccessibility. While aquaculture is often accessed by sea, and thus does not require roads to be constructed, it is noted that the disturbance created by boats and generators might be reason enough to advise against the introduction of aquaculture projects (The Scottish Executive Environment and Rural Affairs Department 2003, p.22). The general visual impact of aquaculture must also be assessed, and '[i]n some circumstances it may be inappropriate to locate any development within sight of a significant viewpoint' (The Scottish Executive Environment and Rural Affairs Department, 2003, p.23).

Action for Scotland's Biodiversity notes that 'the sea has been described as the last great wilderness but it too has been affected by human activity' (Usher, no date, p. 17). Pollutants, land claim, dredging, fisheries, shipping, oil and gas industries, and Paralytic Shellfish Poisoning caused by the shellfish industry are all listed as harmful human impacts on marine habitats and wildlife (Usher, no date, p. 17).

5.2.2. The SNH files

Scottish Natural Heritage's approach to wilderness and the wild is outlined in the Policy Statement No. 02/03, *Wildness in Scotland's Countryside*:

> While the term 'wilderness' is often used to describe the wilder parts of the globe, it is best avoided in Scotland because it implies a more pristine setting than we can ever experience in our countryside, where most wild land shows some effects from past human use. Much of this land is still used for an economic purpose, and local populations depend on it in various ways for their livelihood - both directly and indirectly. Also, the scale of our wilder landscapes is very modest as compared to the extensive, barren lands of, say, the Arctic wastes or the great deserts of the world, for which the term wilderness is best reserved. The term 'wild land' is also best reserved for those now limited core areas of mountain and moorland and remote coast, which mostly lie beyond contemporary human artefacts such as roads or other development (Scottish Natural Heritage, 2003).

The same thought is echoed in the document *Guidance: Hydroelectric schemes and the natural heritage:*

> While the term 'wilderness' is often used to describe the wilder parts of the globe, it is best avoided in Scotland, where most wild land shows some effects from past human use. The best expression of wildness is to be found in the more remote mountain and moorland cores, on the most isolated sections of the coast and on uninhabited islands. Natural character, remoteness and the absence of overt human influence are the main attributes of wild land. Wild land can be described as extensive areas where wildness (the quality) is best expressed (Scottish Natural Heritage, 2010b, p. 8).

The Policy Statement No. 02/03 emphasises the importance of individual perception in defining wildness. It also notes that a distinction can be drawn between *wildness*, the quality enjoyed, and *wild land*, the areas where wildness is best expressed. While the latter 'has normally been identified in the uninhabited and remoter areas in the north and west, the quality of wildness can be found more widely in the countryside, sometimes quite close to settlements' (Scottish Natural Heritage, 2003, p.1). Engagement with the physical world, solitude and sanctuary, closeness to nature, and wildness as a valued quality are all listed as values found in wild landscapes (Scottish Natural Heritage, 2003, p.2). The historical and current human presence and human use are acknowledged, and the degree of wildness 'is an outcome of the past and present policies of those who own or manage [these areas]' (Scottish Natural Heritage, 2003, p.3). Scarcity, intrinsic quality, potential for nature, economic factors and accessibility are said to be the five main factors of value of the Scottish countryside (Scottish Natural Heritage, 2003, pp.4-5).

However, the word *wilderness* is not completely abandoned on the SNH website. An older policy document describes the highlands as 'the last great wilderness of Scotland, but [it] contains much that is of a serene and gentler beauty than the rugged splendour of mountain fastnesses' (Countryside Commission for Scotland, 1978, p. 29). Policy Statement No 02/04, Scotland's National Parks quotes Donald Dewar, Secretary of State for Scotland, who in 1999 said:

> It is hard to put your finger on what makes Scotland special. But we are all aware of it and aware of the responsibilities it brings. There is little virgin wilderness out there, in the sense that what is wild is wild because we choose to keep it that way. The land is what we live on, what we live with, something to enjoy and we should sustain and protect it. (Scottish Natural Heritage, 2004, p. 2).

Some of the documents on the site are introduction to various Natural Reserves. A chapter on Glen Affric National Nature Reserve (NNR) quotes Leney (1974): '[T]he area maintains a sense of wilderness, less rugged than the remote area of North West Scotland and has a grandeur and classic beauty that is not found in the bleaker lands to the north' (Scottish Natural Heritage, 2010a, p. 2). Of Knoydart, it is said that:

> Knoydart is often seen as one of the last, great wild areas of Scotland. It is a majestic, mountainous peninsula between two dramatic sea lochs, and large tracts are isolated, inaccessible and exposed to the elements. There is extensive terrain of rough, rugged, harsh, bare rock, cliff and scree. The landscape is clothed with a natural vegetation of open moorland, and in many places native woodland clings to the lower and steeper slopes. The combination of wildness, naturalness and remoteness is a major draw to those seeking an experience of wilderness (Scottish Natural Heritage, 2010c, p. 192).

The Fee Trail (2010), the leaflet for Corrie Fee NNR, has a subsection titled *Balancing act – One of Britain's last wildernesses* in which it is said that Corrie Fee was 'one of the last areas in Britain to be changed by humans'. It is explained how human arrival and consequent sheep grazing turned woodland into grassland, and how SNH is now controlling the deer population to preserve the area's special features, and fencing out the dwarf willows.

A document on the beaches of Sutherland describes the north shore of Loch an Aigeil, as characterised by 'the fine sandstone stack of A'Clach Tuill', archaeological sites, and machair and mars flora. But '[g]iven restricted access and a reduction in trampling the blowouts and erosion trenches will reach their own equilibrium in time, but until then the area will undoubtedly take on increasingly the appearance of a sand wilderness and lose its

intrinsic attractiveness and value' (Ritchie & Mather 1969, p.26). The Oldshore Beg beach is suggested to be capable of fairly intensive use, yet 'it is unusual… in that access and accessibility to it are not particularly easy, although it is not far from motorable roads. This relative inaccessibility might allow it to be retained as a sort of "wilderness beach" without any of the trappings, of tourism, although there are no purely physical reasons to preclude an increase in amount of use made of it' (Ritchie & Mather 1969, p.35). For the Kervaig Bay, 'if it is contended that a number of "wilderness" type beaches should be maintained for recreational use as well as more intensively used ones, then efforts should be made to conserve the quality of the environment in such beaches' (Ritchie & Mather 1969, p.79).

The newsletter of SNH's Biodiversity Team, *The Forum,* discusses wilderness in the context of the charity *Trees For Life*. Its Glen Affric Landscape Project competes for a funding scheme, in which winners are chosen by a public online vote. The executive director of Trees For Life appeals to the potential voters, to 'help make the most of this opportunity to protect one of Scotland's finest wilderness forests'. He notes that Glen Affric 'has been described as the most beautiful glen in Scotland, and this is a golden opportunity to help conserve its wildlife and wild places, and to reverse centuries of forest loss' (Biodiversity Scotland 2014, p.24). The area of the reforestation project, the Dundreggan estate, is also known to host at least 67 priority species for conservation (Biodiversity Scotland, 2013, pp. 4–5). Once the charity wins vote and receives another grant, bringing their funding to the total of £80,000, the money is said to be spent on not only reforesting, but also creating 'opportunities for hundreds of people from diverse backgrounds to gain health benefits and conservation training, and the creation of an eco-friendly wilderness base at a remote mountain bothy' (Biodiversity Scotland, 2014a, p. 12).

Working with ideals similar to that of Trees for Life, the Wildwood Group of Borders Forest Trust states in its mission statement:

> The Wildwood project aims to re-create, in the Southern Uplands of Scotland, an extensive tract of mainly forested wilderness with most of the rich diversity of native species present in the area before human activities became dominant... Access will be open to all, and it is hoped that the Wildwood will be used throughout the next millennium as an inspiration and an educational resource (Ashmole, 2013, p. 5).

The positive effects of wilderness to individuals also come across in the documents. A briefing for Dundee Equally Well titled *Mental health, wellbeing and the natural environment* refers to the 'wilderness effect', or the concern that 'children are damaged psychologically and emotionally by lack of contact with nature… and that children and teenagers nowadays have far fewer opportunities to freely experience the natural world than they did in the past' (Friedli, 2009, p. 11). A presentation on The Going Places project, which offers 'Pre-Therapy Orientated, Wilderness Based therapy' for adults with schizophrenia and psychosis, states that 'A nurturing, structured therapeutic intervention using the context of journeying in the natural wilderness to lessen the impact of daily life stressors'. 'Absorbing nature' and 'being with the elements' are also mentioned as fundamental parts of the therapy. The presentation also notes that perceived wilderness is important, rather than the 'real' one.

> In our wilderness program we try to eliminate real dangers and uncertain outcomes for two reasons: firstly, we believe change occurs most readily when people feel safe, also, we don't want to expose our clients to unnecessary risks. Instead we believe that personal change can be stimulated by introducing activities in which there are some perceived risks but a very low probability of actual physical harm. (Erskine 2011, p.24).

The event report of *Citizen Science: public involvement in monitoring the natural environment* (2011) also mentions 'a number of longer term experiential learning opportunities' that aim to bring organisations together to share learning and stimulate new partnerships, including a 'Wilderness' project which focuses on disability" (Cameron, 2011, p. 13).

In the Fen Management Handbook (2011), wet fen woodlands are described as giving "the impression of a primeval swampy wilderness, with huge up-standing tussocks of greater tussock sedge emerging from peat-stained water amongst gnarly alders, over which large mosquitoes and dragonflies hawk and hover" (McBride *et al.*, 2011, p. 23). There is also one reference to 'unwanted' wilderness. The Stirling High School Wildlife Garden Handbook in its guidelines for management and maintenance of landscapes attractive to wildlife notes that:

[T]hey must not be neat and tidy and should be left to be wild with long grass, nettles and thistles. To some peoples minds this is a weed infested mess. We would propose that as long as all the edges mown and kept neat then a degree of wilderness can then be tolerated as it immediately looks as if it is meant to be like that (Mike Hyatt Landscape Architects, no date, p. 20).

A review of research into public attitudes to wild land talks about wild land rather than wilderness, except when references are made to people who take part in 'wilderness activities'. It does, however, note that when people are asked which settings they associate with wild land in Scotland, 54% mention sea/sea loch, and 38% mention beach. At the top

of the list are woodland/forest at 83%, mountains/hills at 79%, and loch at 64% (Armstrong, 2012, p. 5).

5.2.2.1. The Core Areas of Wild Land project

After the 02/03 Policy Statement, multiple Commissioned Reports were published that discussed wild land and wilderness in Scotland. In 2003, *Assessment of historic trends in the extent of wild land in Scotland: a pilot study* notes that the highlands, which provide spectacular landscapes, recreational opportunities, and wildlife of high conservation importance, are 'now widely referred to as "wild land"' (Carver and Wrightham, 2003, p. 1). The report finds that in the Affric-Kintail-Knoydant area the wild land has been eroded during the past 100 years due to road construction, afforestation and hydro schemes (Carver & Wrightham 2003, p.30). The Commissioned Report No. 291, *Public Perceptions of Wild Places and Landscapes in Scotland,* finds that the majority of Scottish residents (91%) consider it important for the country to have wild places (Market Research Partners, 2008, p. i).

The Commissioned Report No. 194, *A review of the benefits and opportunities attributed to Scotland's landscapes of wild character*, analyses the policies of the Scottish Executive, SNH, the National Trust for Scotland, and the John Muir Trust, finding that the interpretation of the 'wild land' concept is reasonably consistent (McMorran *et al.,* 2006, p.i). As for the wilderness:

> The [American and IUCN] requirement for minimal or no human impact at a large scale evidenced in these definitions has led to the wilderness concept being largely excluded from the policies of European countries, mainly as a result of the absence of equivalent large-scale areas of unmodified land on this continent (McMorran *et al.*, 2006, p.4).

Therefore, areas with wilderness-like qualities in Europe are rather referred to as *wild land* and *natural areas*. McMorran *et al.* note that the term *wild land* has been increasingly used since the 1970's. They also quote Aitken *et al.* (1992), who suggest that 'this shift away from the term wilderness also most likely reflects the recognition on the part of wild land proponents that wilderness in a Scottish context "*retains a pejorative connotation as a waste or desert place*"' [emphasis in the original]. It is, however, admitted that the Scottish concept of *wild land* is contentious in much the same way as the American concept of *wilderness* (McMorran *et al.*, 2006, p.4). The recreational perspective on wild land is discussed, as well as the problem with visibly managing wild land, thus taking away from the wild character (McMorran *et al.*, 2006, pp.5-6). McMorran *et al.* also look at the international legislative context, noting that 'while no direct wild land or wilderness policy exists at either the international or the European level, European policy does directly affect such areas in Scotland [through] the influence of Common Agricultural Policy (CAP) and the EU Habitats Directive'. Pan Parks, a non-governmental organisation aiming to protect European wilderness, which filed for bankruptcy in May 2014 and is currently in liquidation, is discussed, as an initiative that 'appears to represent a prime demonstration of the utilisation of wilderness areas in a sustainable way' (McMorran *et al.*, 2006, p.16). Use of wilderness experiences in youth programmes is mentioned, and the US programme Wilderness Discovery used as an example of providing positive effects on unemployed high school dropouts (McMorran *et al.,* 2006, p.44).

SNH published the first version of the core areas of wild land (CAWL) map in April 2013. A consultation invitation was published alongside the map, and the responses were published on the SNH website with personal information omitted. The three main questions were:

1. What is your view on the Core Areas of Wild Land 2013 map?

2. Do you have specific comments on any of the areas of wild land identified?

3. Are there any other issues regarding the Core Areas of Wild Land 2013 map, or its preparation, that you would like to raise? (Scottish Natural Heritage, 2013b).

While the main discussion concentrates on 'wild land', 'wilderness' also comes up in the consultation responses. EDF Energy note the following, and Scottish Renewables'(2013, p. 3) response uses almost identical wording:

> The 2013 Wild Land map uses the methodology developed for the 2008 'Wildness Study in the Cairngorms National Park' to map relative wildness for the whole of Scotland. This suggests that the parameters used to define 'wildness' in the Cairngorms are the same as those that would be used to define wild land in other areas around Scotland, for example some areas of coastland. We believe that this is an inappropriate measure to define wilderness given the diverse nature of areas which could be defined as wild (EDF Energy 2013, p.3).

Of those who mention wilderness, many express support for the SNH view that there is and should be a difference between *wilderness* and *wild land*. An anonymous respondent notes: 'I support the SNH's statement in paragraph 2.2 that Scotland's wild land is not empty of human activities and that it is distinct from "wilderness". Again, consensus on this point would avoid some of the current wearisome debate about definitions' (Anonymous, 2013a, p. 1).

The role of wilderness designation in protecting areas from development is also specifically acknowledged. 'Semantic arguments must not be allowed to derail the process

of protecting such areas – developments must not be allowed to encroach into CAWLs on the grounds that they are impacting only "wild land", not "wilderness"' (Pinder, 2013, p. 1). AES Wind Generation notes: 'What about areas of "Wilderness" – these areas would seem to be the most valuable and purest ideal of the term "wildness" - are we sure none exist in Scotland as implied by SNH's statement?' (AES Wind Generation, 2013, p. 8). The company also expresses concern over potential confusion:

> There is a risk that this terminology could become confused and used interchangeably. The terminology of 'Core Areas of Wild Land' adds to this confusion. This terminology could be taken to imply that the identified areas of Wild Land, are somehow different to that which is referred to in the terminology outlined above and that they represent the central and most 'pure' areas of wild land, perhaps implying 'wilderness'. Analysis of the methodology employed reveals that this is not the case and often SNH has included areas of lower wildness quality within what it has termed the 'core area'. Use of clear terminology is required (AES Wind Generation, 2013, p. 8).

The designation areas in the Outer Hebrides is "strongly supported" by Craigforth and Planning Aid Scotland (2014), who note that:

> On small islands the concept that areas can have a "wilderness" value is particularly important and their value, both locally and nationally, needs to be recognised. These areas are often perceived as empty wasteland fit only for rough grazing and, consequently, economic development would be beneficial to the community. Statutory recognition of their importance would therefore facilitate their protection and conservation (Craigforth and Planning Aid Scotland, 2014, p. 42).

Some respondents express disagreements over the included and excluded areas. Peers (2013) notes that 'because the map is large scale, numerous smaller wild areas, for

example many small islands, are excluded. Even a small, isolated island can provide wilderness and therefore needs protection'. Several respondents call for inclusion of the less sublime and inspiring areas, such as 'the bog, the uninspiring flat land and those treasured and well loved fragments of wilderness that are part of, or near urban areas' (Brewster, 2013, p. 1). Or, as expressed by Dunshea, (2013, p. 1):

> More coastal, island and peatland wild land areas could have been included – these areas are perhaps less glamorous than the mountains, but deserve protection for all sorts of reasons and often retain a higher-quality 'wilderness feel' than the busy Munros.

The mechanisms of the mapping are also called to question by some, with a respondent noting that '[t]he appreciation of "Wild Lands" or wilderness areas does not need to become another map or shaded area when there are already designated sites that serve to protect and identify it' (Anonymous, 2013b, p. 1). Problems of small, fragmented areas is addressed by respondents who note that:

> "[I] feel strongly that the areas should coalesce into large single units even if the external group boundaries are generally maintained. On their own the areas are far too small to be credible and the wilderness concept will be compromised by potential industrial development (particularly wind farms) just outside the designated boundaries (McNab, 2013, p. 1).

And:

> The precise reasons for the inclusion of areas of lower wilderness within a proposed CAWL need to be set out rather than attributed to some level of 'informed judgement' and the findings from detailed site survey also need to documented. The approach to

boundaries could be broad or precise, but either method needs to be explained and acknowledged (AES Wind Generation, 2013, p. 9).

The importance of wild land – and wilderness – to individuals, as well as the subjectivity of such definition, is also highlighted. One respondent acknowledges that '[u]ltimately "wild" places or "wilderness" is a personal and anthropocentric perception. However without these physical spaces in which to dwell there would be no emotional or spiritual inspiration" (Anonymous, 2013c, p. 1). Several respondents also acknowledge the uniqueness of the Scottish environment in comparison to the American wilderness, or the European lack thereof:

…I know from my personal experience of comments from people outside the UK and Europe. The USA, for example, has real wilderness on a massive scale that is protected through their Wilderness Act… But again, as para. 5.1 also states, the wild areas we do have "are especially important and merit particular recognition as they identify Scotland's remaining extensive areas of the highest wildness". This is indeed not only "an increasingly rare characteristic in a Scottish, UK and European context" but also in a global context (Finney, 2013, p. 1).

How lucky we are to still have places in this country where we can lose ourselves both mentally and physically in a landscape devoid of obvious man-made intrusion. To do so is to realise our place in Nature and keeps us humble. Scots journey the world over looking for those kind of experiences in far-off lands, but how many of them know the quality of wilderness experiences on offer right here at home? (Dolphin, 2013, p. 1)

Having been involved for many years in our self catering business we know how important the wild land has been for all our visitors, who referred to it as the last

wilderness in Europe, many returning year after year just for this purpose And we are receiving increasingly more comments from these visitors how that precious wild land is gradually disappearing, thus diminishing [sic] their desire to return (Inghammar and Inghammar, 2013, p. 1).

In the analysis of the consultation responses it is noted that coastal land, seascapes and islands were the landscape types that were most commonly highlighted by respondents as warranting greater representation (Craigforth and Planning Aid Scotland, 2014, p. 24).

In its advice to Government in the summer of 2014, SNH once again notes that:

> Scotland's wild land is not 'wilderness', such as is recognised elsewhere in the world and we do not use this term. Scotland's landscape reflects its past occupation, current use and management. Areas of wild land are not empty of human activities or influence, even those places considered by some to be largely natural, very remote and isolated. In these areas, any evidence of past and contemporary land management and use affects but does not remove the significant quality of wildness that can be experienced (Scottish Natural Heritage, 2014a, p. 7).

It seems clear that a lot of thought and research has been given to the protection of the Scottish wild land. However, although the value of marine related outdoor activities and businesses to the country is acknowledged (Usher, no date; The Scottish Executive Environment and Rural Affairs Department, 2003; Bryden *et al.*, 2010), the choice of words seems to deliberately exclude the marine environment. The local people seem to be more aware of the importance of marine and coastal environment, as suggested by the calls for more inclusion for those areas in the CAWL mapping. With the subjective experience of wilderness so strongly emphasised in the definition process, it remains a question how

we can measure wilderness in areas that are not frequently visited by most people, i.e. the marine areas further away from the coast. If the recreational value of wilderness is essential, how do we set a wilderness value on areas that are not used for recreational purposes?

5.3. The Scottish MPAs

Scotland's MPA network consists of 47 SACs, 45 SPAs, and 61 SSSIs, covering approximately 20% of the Scottish seas. Thirty MPAs were designated in August 2014, to protect benthic species and habitats. Of these, 17 fall under the Marine (Scotland) Act for inshore waters and 13 under the UK Marine and Coastal Access Act for offshore waters (Scottish Government 2016b). The Scottish Government's *Guidelines on the selection of MPAs and development of the MPA network* (2011) also notes the international commitments, such as the OSPAR Convention, the Convention of Biological Diversity (CBD), the Marine Strategy Framework Directive (MSFD), and the World Summit on Sustainable Development (WSSD), as well as the plan to complement sites designated under the Habitats and Birds Directives, Ramsar sites and Sites of Special Scientific Interest. The aim of the MPA network is to support the natural biodiversity and geodiversity features. While *wilderness* is not referred to, the document notes the following:

> One way of prioritising suitable search locations for MPAs is to consider areas that are least damaged by activities. On the assumption that least damaged/more natural areas occur in areas of least activity, the guidelines for Nature Conservation MPAs will be applied to these areas first, before applying them more widely (The Scottish Government, 2011, p. 26).

As for human benefits, the Demonstration & Research MPAs are to 'be developed for the purpose of demonstrating, or carrying out research on sustainable methods of marine management or exploitation in territorial waters' (The Scottish Government, 2011, p. 28). The objective for historic MPAs is 'to help preserve our most important marine historic assets and to celebrate and communicate their heritage value so that everyone can appreciate these assets and act responsibly' (The Scottish Government, 2011, p. 31). They are said to have 'intrinsic, associative and contextual significance in relation to cultural and social values' aside from potential conservation value (The Scottish Government, 2011, p. 32).

Stakeholder engagement is to be undertaken throughout the process of assigning new MPAs. The listed stakeholders include marine interests and organisations, local authorities, nearby communities, and users 'from a wider geographic area, such as recreational interests'. Discussions, provisions of updates, and awareness raising have all been mentioned as important (The Scottish Government 2011, p.32). As for the management of the MPAs after designation, it is stated that:

> Stakeholders will have an important role in influencing site management. A range of management measures, including the use of voluntary options, may be available. These will be explored with stakeholders and consulted upon prior to decisions being reached. Socio-economic factors will be considered and Impact assessments will be used as a mechanism to help inform the decision-making process (The Scottish Government, 2011, p. 40).

Marine Scotland's *Report to the Scottish Parliament on Progress to Identify a Scottish Network of Marine Protected Areas* (2012) discusses the flora and fauna of the Scottish

seas as a reason for the development of the MPA network, but also notes that the seas are important for Scottish food and energy needs, industries, and recreation and eco-tourism (Marine Scotland, 2012, p. 6). In addition:

> Scotland's coasts and seas also preserve a rich cultural heritage dating from early prehistory to the recent past including remains of coastal settlement (submerged landscapes) and thousands of wrecks of ships and aircraft. The marine cultural heritage helps us to appreciate the importance of our coasts and seas throughout Scotland's history, contributes to our sense of place and wellbeing, enhances the distinctiveness of coastal areas and helps attract visitors to Scotland (Marine Scotland, 2012, p. 7).

Visiting charismatic species in the wild and the economic benefits of wildlife tourism are specially mentioned, as are the non-use benefits, 'protecting places simply to know that they are there to be enjoyed enriches us all' (Marine Scotland, 2012, p. 9). The document also emphasises that the MPAs will not be no-take zones, but rather managed under the principle of sustainable use (Marine Scotland, 2012, p. 37).

JNCC report on designations (JNCC, 2014a) notes that Marine Scotland led five national stakeholder workshops to discuss the data on marine features and activities. Regular update meetings have been held, and 56 public consultation events took place in the autumn of 2013. JNCC Report No. 518 (2014b) advices on the scientific questions raised in relation to offshore waters during the Marine Scotland consultation, while the SNH's Commissioned Report No. 747 (2014b) does the same on the inshore areas.

The new Scottish MPA network is an example of a present-day marine conservation project that does not utilise the wilderness concept. While the social benefits are

acknowledged, the basis of MPA definitions is primarily biological and geological. Stakeholder participation appears to be a significant part the process, as required by the relevant legislation, yet as mentioned above, the Scottish Fishermen's Federation expressed anger and disappointment after the announcement of 11 inshore MPAs and nine SPAs in June 2015. An open letter to the Cabinet Secretary states:

> You will recall that the process was heavy with consultation… We regarded the participation of the fishing industry as essential and set about providing it. We made one of the most significant input streams to the project, having recognised the importance to us of proper environmental protection and the potential harm to sustainable use that could result from information gaps or mishandling in the decision-making… Given the background and work to date and the reasonable Marine Scotland document delivering the consultation on designation, the Federation and more specifically several member associations were astonished by the decisions taken by you…Several sites in this first tranche bear little or no resemblance to the process which preceded your decisions (Scottish Fishermen's Federation, 2015b).

In July 2016, SNH began a consultation on ten new Marine SPAs, to protect habitats for various seabird species around Scotland (Scottish Government, 2016a).

5.4. EU legislation

The EU documents were collected from the EUR-Lex database. The word *wilderness* first appears in EU documents in 1980. In the written question No 1404/80 by the Member of the European Parliament (MEP) Mr. Muntingh asks the Commission about European corporations and the Commission owning land and possibly being involved in the clearance of the Amazon jungle. He cites previous incidents between "Indian tribes" and agricultural workers, noting that '[t]hese incidents have arisen because the border between

"civilization" and the wilderness is moving steadily westwards and beginning to reach the last remaining areas where Indians still live in isolation' (Written question No 1404/80). The first reference to *marine wilderness* shows up two years later, in the European Parliament Minutes of proceedings of the sitting of Thursday, 17 June, discussing the *Council resolution on the continuation and implementation of a European Community policy and action programme on the environment.*

> The Commission will examine the legislation already introduced by several Member States regarding deep-seabed mining in anticipation of the final outcome of UNCLOS and will if necessary make proposals for a Community deepseabed mining regime which gives proper weight to environmental considerations and to the need to maintain and safeguard this concept of marine wildernesses (European Parliament, 1982, p. 101).

The *Commission amended draft resolution of the Council of the European Communities and of the representatives of the Governments of the Member States meeting within the Council on the continuation and implementation of a European Community policy and action programme on the environment* later in the same year uses the following wording:

> The Commission will examine the legislation already introduced by several Member States regarding deep-seabed mining and will, if necessary, make proposals for a Community deep-seabed mining regime which gives proper weight to environmental considerations and to the need to safeguard the marine wilderness (European Commission, 1982, p. 16).

The latter wording is then used in the finalized *Council resolution on the continuation and implementation of a European Community policy and action programme on the environment (1982 to 1986),* published in 1983.

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Proposal for a Council Directive on the protection of natural and semi-natural habitats and of wild fauna and flora (COM(88) 381 final) brings the wilderness areas into discussion, considering the potential necessity 'to take initiatives to promote common or coordinated management of trans-frontier areas of major importance for the conservation of threatened species of wild fauna and flora and the maintenance of wilderness areas' (COM(88) 381 final, recitals), and therefore states that the Member States 'shall assist the Commission in promoting… the maintenance of wilderness areas throughout the Community' (COM(88) 381 final, Art. 9).

The written questions from MEPs to the Commission often raise the question of specific wilderness regions, inside and outside the Union. Mr Muntingh asks the Commission about the dredging of the River Boro in Botswana, with Mr Marin responding to him that the Commission is waiting for the results of a study of the possible environmental consequences, and that '[u]nder the new Lome Convention, [the Commission] expects to play an ever-increasing role in matters of protection of the environment and preservation of the wilderness, already an important sector of its activities' (Written question No 327/91). Amendola, Raffin and Bettini ask the Commission about community funding in Eastern European countries' nature conservation projects. In the response, it is noted that '[a]n adviser on eco-tourism has been seconded to the Albanian government to help develop environmentally favourable tourism which will protect the rich heritage of unspoilt wilderness and wildlife' (Written question No 3105/92). Gonzáles Álvarez queries about the proposed Oropesa-Cabanes road link in Spain, which she says would have a negative effect on the nearby El Desierto de Las Palmas wilderness area (Written question E-2863/99). Pohjamo and Pesälä bring up the EU Habitats Directive's 'alarming' effect on predator populations, endangering reindeer farming in Finland. It is noted that 'Reindeer

husbandry and herding are not directly comparable to farming. Reindeer graze freely in a vast wilderness', and the MEPs ask whether the Union is accepting the potential destruction of the traditional business, or if hunting licences could be issued by 'more flexible accelerated procedures'. In its response, the Commission representative notes that there is no evidence supporting the claims of increasing predator population sizes (Written question E-2180/03). Essentially the same question is asked by Virrankoski, this time emphasizing the risk to livestock in general, as well as children (Written question P-4034/03). Meijer asks about the situation of the Iberian lynx, asking whether the Commission is 'aware that, according to the Worldwide Fund for Nature, which has in the past worked to secure the survival of the lynx in this area with the support of the Commission, the adjoining land which has been expropriated and which was intended as a wilderness to provide compensation for the lost area is totally unsuitable as lynx habitat' (Written question E-3650/03). Korhola refers to the Message from Prague, noting that 'Europe is the only continent which has managed to pull together an agenda for enhancing wilderness protection'. She also asks what the Commission intends to do 'in order to quantify the value of the non-extractive economic, social and environmental benefits of wilderness' as recommended by the Message, as well as how the areas will be identified and promoted, considering that no extraction can be allowed by definition. In his response, the Commission representative states that 'interconnections between Wilderness and Natura 2000 are being addressed in Commission *Guidelines for the management of wilderness and wild areas in Natura 2000* that are being finalized' at the time of the response. In addition, 'the Commission is furthermore developing actions for the establishment of a Register of Wilderness areas in Europe' (Question for written answer E-005329/12). Poc also refers to the EP resolution, requesting the Commission to specify progress in relation to mapping of wilderness areas, producing a report on their value and benefits, the effective protection, funding of wilderness areas, and publication of final

guidelines for wilderness areas. The Commission representative notes that a number of initiatives are being undertaken as a follow-up to the resolution, and that many of the issues will be covered by Natura 2000. However, '[n]o specific allocation is foreseen for wilderness or any other management category under Natura 2000 as the selection of projects is ultimately determined by their quality and contribution to Natura 2000 and broader biodiversity goals' (Question for written answer E-005398/13). Miranda and Meyer suggest that a hydroelectric dam project in Chile, which intends to 'build five hydroelectric dams on the Pascua and Baker rivers in Chilean Patagonia… could well endanger one of the world's last regions of unspoiled wilderness' (Question for written answer E-006789/12).

Special features of particular Member States come up in other types of documents as well. A report on structural funds discusses sustainable development, noting that the area of northern Sweden and northern Finland 'is recognized as one of the last natural wildernesses left in Europe in an almost pristine state' (COM(96) 502 final, p.116). In a similar vein, Committee of the Regions notes in its opinion on the Commission's *Northern dimension for the policies of the Union* that

> [With the accession of Finland and Sweden] the EU gained a completely new northern coniferous forest belt, a region in which reforestation and sustainable use have been a pillar of both the regional and national economy. These regions are also home to Western Europe's last areas of wilderness, the recreational value of which is considerable for Europe as a whole (Committee of the Regions, 1999, p. 3).

A Commission staff working document related to EU strategy for the Danube region notes that:

The natural heritage of the Danube region is of European importance. The region contains a large share of Europe's remaining great wilderness areas, as well as rich cultural landscapes. The Danube and its tributaries are vital to the wildlife ecosystems and indeed provide ecological connections that are essential for overall European environmental health (SEC(2010) 1489 final, p.48).

Action brought on November 30th 2001 by Ayuntamiento de Osera de Ebro against Commission of the European Communities debates the high speed Madrid-Zaragoza-French Border railway line, funded by the Community cohesion fund. According to the case:

Initially, the Spanish administrative authorities approved the route for Subsection II of the Zaragoza-Lleida section, which opted, from the two possible choices at the Source of the Ebro, for the 'Northern Option', which did not affect the protected area of the Soto de Aguilar, a riverside wilderness of great ecological and wildlife value within the municipality limits of the applicant. Subsequently… the Spanish Government decided to alter the route initially planned, opting for Solución Sur Alternativa B (Southern Solution, Option B), which not only is the less environmentally friendly but is also the more expensive (Case T-303/01).

The polar wilderness is discussed in *Minutes of proceedings of the sitting of Friday 18 September 1987, which* notes a discussion on 'Resolution on the protection of the environment and wildlife in Antarctica'. It considers 'the immense importance of the Antarctic as the last great wilderness on earth' (European Parliament, 1987, p. 193), believes that there is 'an urgent need for an "Antarctic Conservation Strategy" which would deal with wilderness values and the ecosystem as a whole, and protect and manage

Antarctica as an entity' (European Parliament, 1987, p. 194), and calls for an initiation for such a strategy, to involve as one of the basic principles 'that complete protection for the wildlife of the Antarctic should be ensured, and that the Antarctic's wilderness values should be a primary consideration' (European Parliament, 1987, p. 195).

Communication from the Commission to the Council on Energy and the Environment (COM (89) 369 final) lists environmental effects of the energy sector, noting that one of the effects of coal on wild life is 'exploitation of wilderness or natural areas for surface mining' (COM(89) 369 final, 7A).

The Rio de Janeiro Convention on Biological Diversity of 1992 is discussed in two documents, *proposal for a Council decision concerning the conclusion of the Convention on Biological Diversity*, as well as the actual finalised Council decision, both listing in the *Identification and Monitoring* Annex:

> Ecosystems and habitats: containing high diversity, large numbers of endemic or threatened species, or wilderness; required by migratory species; of social, economic, cultural or scientific importance; or, which are representative, unique or associated with key evolutionary or other biological processes (93/626/EEC; COM(92)509 final).

'A new type of citizenship' is introduced by *Opinion of the Committee of the Regions — Green infrastructure — enhancing Europe's natural capital* as one of the 'human, technical and financial resources' to meet the challenges of supporting the natural capital

> [A new type of citizenship] notes the considerable social demand for natural areas in urban environments, which is just as much a response to the need for green areas in their

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various forms (leisure and recreation areas, areas dedicated to gardening and agriculture, landscaping and embellishment features, wilderness areas etc.) as to the sense of well-being they bring, as well as to public health issues, combating economic and social inequalities; these needs must be met for the sake not only of young people, but also of older or disadvantaged people (Committee of the Regions, 2013, p. 46).

There are two references to the symbolical meaning of *wilderness:* The White Paper on Education and Training lists 'being out in the wilderness' with 'having a cross to bear', 'Eureka', 'the tower of Babel', and 'the judgment of Solomon' as examples of expressions which lose their meaning if the history of European civilisation is not properly taught (COM(95) 590 final, p.12). MEP Filip Kaczmarek quotes Amnesty international, which has referred to the Pakistani human rights situation as 'a legal wilderness' (Question for written answer E-011530/12, 2013, p. 634).

The European Parliament's wilderness resolution (2008/2210(INI)) is, as has been mentioned, the Union's main wilderness document. Its aim is a wilderness strategy that is coherent with the Habitats and Birds Directives, and uses an ecosystem approach. It supports management of re-wilding areas, compensation mechanisms, and raising awareness of wilderness development and benefits. It emphasises the need for cooperation with locals and stakeholders, and for ensuring that the impacts of tourism are minimised. It further calls on the Commission to accept the Wild Europe Initiative, and to develop guidelines on how to protect and manage the wilderness areas under the Natura 2000 network. As a result of the resolution, the Czech Presidency of the Council held a Presidency Conference on Wilderness and Large Natural Habitat Areas in Prague on May 2009. It resulted in *Message from Prague*, or *An Agenda for Europe's Wild Areas*, which

aimed to concentrate on both wilderness and wild areas, providing possibly the first EU definition for both:

> Wilderness is defined as a large area of terrestrial and/or marine natural habitat and ecological processes substantially unaltered by the hand of man. By contrast, wild areas refer often to smaller and often fragmented areas whose natural condition is either partially or substantially modified (European Union Presidency and the European Commission, 2009, p. 1).

The document acknowledges the 'indirect and direct economic, health, social, research and cultural values' of wilderness and wild areas (European Union Presidency and the European Commission, 2009, p. 1). It also acknowledges the need for a pan-European approach for wilderness areas protection, and notes that the N2K network offers a foundation on which to develop such an approach, also for non-member states. It calls for protection of wilderness to be more efficiently integrated to other policies, such as agriculture, fisheries, forestry, energy, regional development, external relations and trade. It also requests completion of mapping wilderness and wild areas, and compilation of a register of wilderness using existing databases, as well as '[f]urther investigation into the scientific rationale underpinning the linkage between wilderness, wildlands and delivery of societal benefits in support of social programmes – eg for youth development, youth at risk, conflict reconciliation and healthcare' (European Union Presidency and the European Commission, 2009, p. 3). Additionally, it supports developing examples of how local communities can secure value from initiatives such as tourism and recreation, and build 'inter-sector consensus and support by developing initiatives for joint approaches based on common ground with other sectors' (European Union Presidency and the European Commission, 2009, p. 4).

The actual Habitats Directive (Council Directive 92/43/EEC) does not make a special reference to *wilderness, wildness,* or *wilderness areas*. It does refer to '*natural habitats* [which] means terrestrial or aquatic areas distinguished by geographic, abiotic and biotic features, whether entirely natural or semi-natural' (Council Directive 92/43/EEC Art. 1b) It also notes as one of its aims that '[m]easures taken pursuant to this Directive shall be designed to maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest' (Council Directive 92/43/EEC Art. 2). Member States are also requested to consider reintroducing the Natura 2000 species to their native territories where they have become extinct (Council Directive 92/43/EEC Art 22).

The Commission's *Composite Report on the Conservation Status of Habitat Types and Species as required under Article 17 of the Habitats Directive* gives a brief description of Natura 2000, noting that '[i]n total, the Natura 2000 network contains over 25 000 sites (Birds and Habitats Directives combined) located on a diverse range of land use types – agriculture, forests, wilderness areas and covering 17% of EU territory' (COM(2009) 358 final, p. 14). The Committee of the Region's *Opinion on a new impetus for halting biodiversity loss* expresses support for the Natura 2000 initiative, emphasizing that:

> [T]he Natura 2000 network and all of the wilderness areas must be fully incorporated
> into the biodiversity conservation spatial strategies implemented by the Member States
> and by local and regional authorities [and calling] for the urgent creation of an
> "environmental framework" a genuine natural infrastructure ensuring working links
> between Natura 2000 sites and wilderness areas as a matter of priority… by mobilising

the various local and regional authorities, including the regions (Committee of the Regions, 2009, p. 50).

Additionally, it calls for an integrated network of protected areas and/or wilderness zones to be set up 'to create an observatory of changes in the natural world, particularly those influenced by climate change' (Committee of the Regions, 2009, p. 51). It also 'welcomes the European Parliament's resolution 2008/2210(INI)… and congratulates the Czech presidency on holding a "Conference on Wilderness and Large Natural Habitat Areas in Europe"' (Committee of the Regions, 2009, p. 49). *The Commission Working Document The European Agenda for Culture – progress towards shared goals* notes that as 'little of our landscape is genuinely wilderness, many protected habitats and landscapes of the N2K network are the product of traditional agricultural and land management practices… which are an integral part of rural cultural traditions' (SEC(2010) 904, p.40).

The EU biodiversity strategy to 2020 lists preservation of wilderness areas under measures to be included in forest management plans (COM(2011) 244 final, Target 3B Action 12). This has been hailed by the Wild Europe initiative, a group of key conservation organisations launched after the Prague conference, as both an important step forward, and the most urgent requirement on their agency (Wild Europe, no date).

The European Commission technical report *Guidelines on Wilderness in Natura 2000 – Management of terrestrial wilderness and wild areas within the Natura 2000 Network* notes that '[w]ilderness and wild areas are not explicitly mentioned in the EU Birds and Habitats Directives, but applying a wilderness approach to the management of Natura 2000 sites is seen compatible with the provisions of the Directives' (European Commision, 2013, pp. 5–6). It also comes with the following disclaimer:

> The EU Natura 2000 network is generally not a network of strictly protected areas in which no economic activities should take place. Therefore in most Natura 2000 sites, a wilderness approach will not be the most appropriate form of management. This guidance document should therefore not be interpreted as the Commission aiming to turn all Natura 2000 sites into wilderness areas (European Commision, 2013, p. 6).

Therefore, the document notes, the guidelines should only be applied to those Natura 2000 sites where a wilderness approach is the most appropriate tool to reach the aimed conservation status. The document lists naturalness, free functioning natural processes, largeness, and the absence of developments as qualities of wilderness, noting that according to spatial analyses, the areas with most wilderness qualities in the EU area are in the Boreal, Alpine and Mediterranean regions, while wilderness is 'largely missing' in the continental and Atlantic regions (European Commision, 2013, p. 10). As a whole, the document uses the following definition of wilderness:

> A wilderness is an area governed by natural processes. It is composed of native habitats and species, and large enough for the effective ecological functioning of natural processes. It is unmodified or only slightly modified and without intrusive or extractive human activity, settlements, infrastructure or visual disturbance (European Commision, 2013, p. 10).

The document also acknowledges a spectrum of wilderness, with a range of landscapes across the Union having more fragmented wild areas that may have been slightly modified by human activities. These areas 'are often relatively small in size which does not allow for a full range of natural processes and functions and consequently cannot be perceived as wilderness', and the conservation objectives for these areas may aim to achieve part of the

wilderness qualities (European Commision, 2013, p. 12). The 98-page document also offers a comprehensive view on the current wilderness conservation and management in Europe, as well as species and other ecosystem features that would particularly benefit from wilderness management. As for the social values, it is stated that:

Wilderness areas have high landscape and amenity values. They are an invaluable resource for science, scientific research and education and inspire cultural and artistic expression. They mostly also represent a high cultural heritage and archaeological heritage value. Sometimes they are part of religious pilgrimages. Wilderness and wild areas in general play an important role in awareness raising regarding environmental issues and can offer visitors an arena to get a practical insight into natural processes. Any Natura 2000/wilderness site protecting culturally important landscapes, habitats or species can be an integral part of the identity of a region. The vicinity of a wilderness site may make a region more desirable and attractive. It may also have a positive impact on land and property values for local communities and landholders (European Commision, 2013, p. 41).

The importance of stakeholder involvement is also emphasised, noting that '[a] sense of "ownership" is very important for good cooperation with local stakeholders' (European Commision, 2013, p. 68). The inclusion of 'people' is noted to be a fundamental part of the Natura 2000 policy, and the document also points out that locals may have issues with the concept of 'wilderness', as some may understand it as something 'dangerous', 'out of control', or 'useless', and that its application may lead to denied access. Therefore cooperation with good communication is essential. For the communication, a clear definition of wilderness is needed.

Another result of the European Parliament wilderness proposal and Natura 2000 was the EU Wilderness Register. Kuiters et al's final report (2013) again makes a distinction between wilderness and wild areas, using the same definition for the former as *Guidelines on Wilderness in Natura 2000*. Wild land is defined as:

> Wild areas have a high level of predominance of natural processes and natural habitat. They tend to be more fragmented than wilderness areas, although they often cover extensive tracts. The condition of their natural habitat, processes and relevant species is however often partially or substantially modified by human activities such as livestock herding, fishing, forestry, sport activities or general imprint of human artefacts (Kuiters *et al.*, 2013, p. 9).

They also note that wilderness areas generally have three zones: a core zone with minimal human interference, a buffer zone with a relatively low impact human activities, and a transition zone with a range of human activities under certain restriction. Of these, the buffer zone tends to offer particular protection for restoration or rewilding. For the register, a minimum threshold value for the core zone of 3,000 ha was selected. The project did not include marine areas. Figure 5.1. presents the wilderness continuum map.
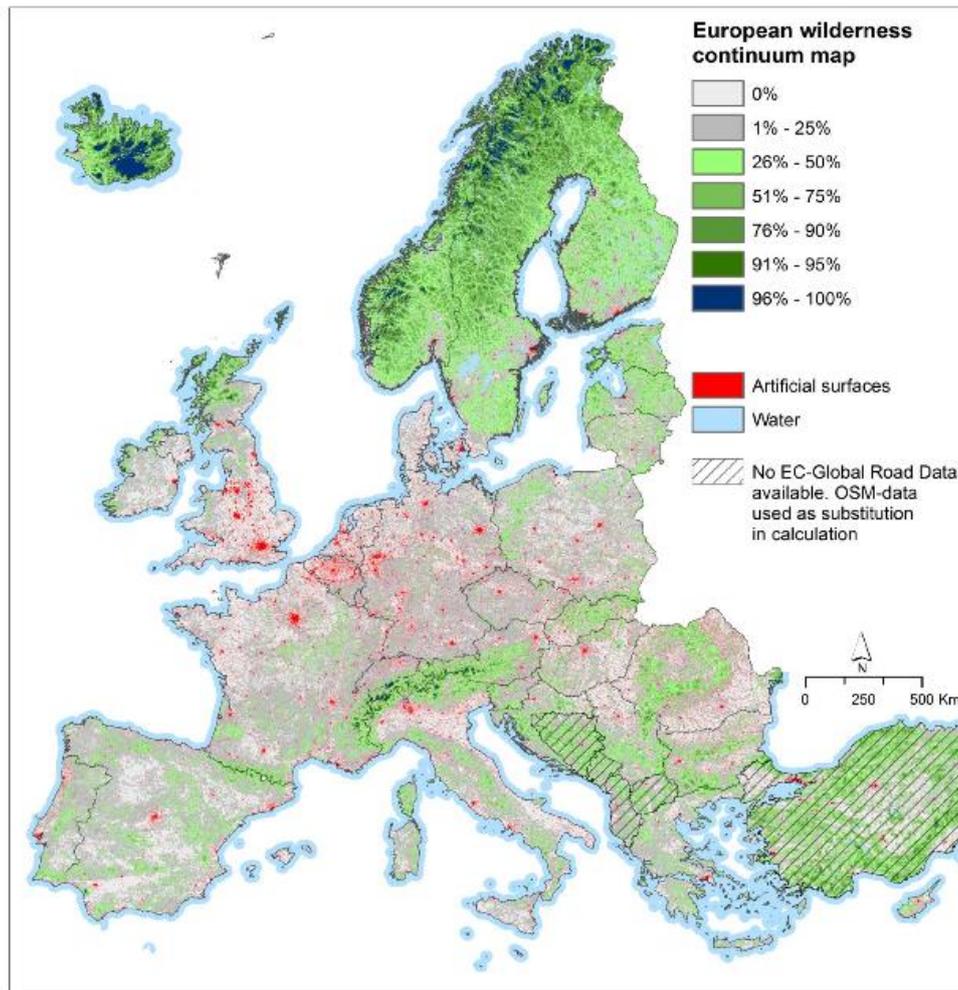
Figure 5.1 European wilderness continuum map (Kuiters *et al*. 2013, p. 59)

The results for Scotland were compared with SNH's Wilderness map for Scotland (Scottish Natural Heritage, 2013b, Figure 5.2), and a comparison between regional datasets and the proposed European wilderness indicator was made.
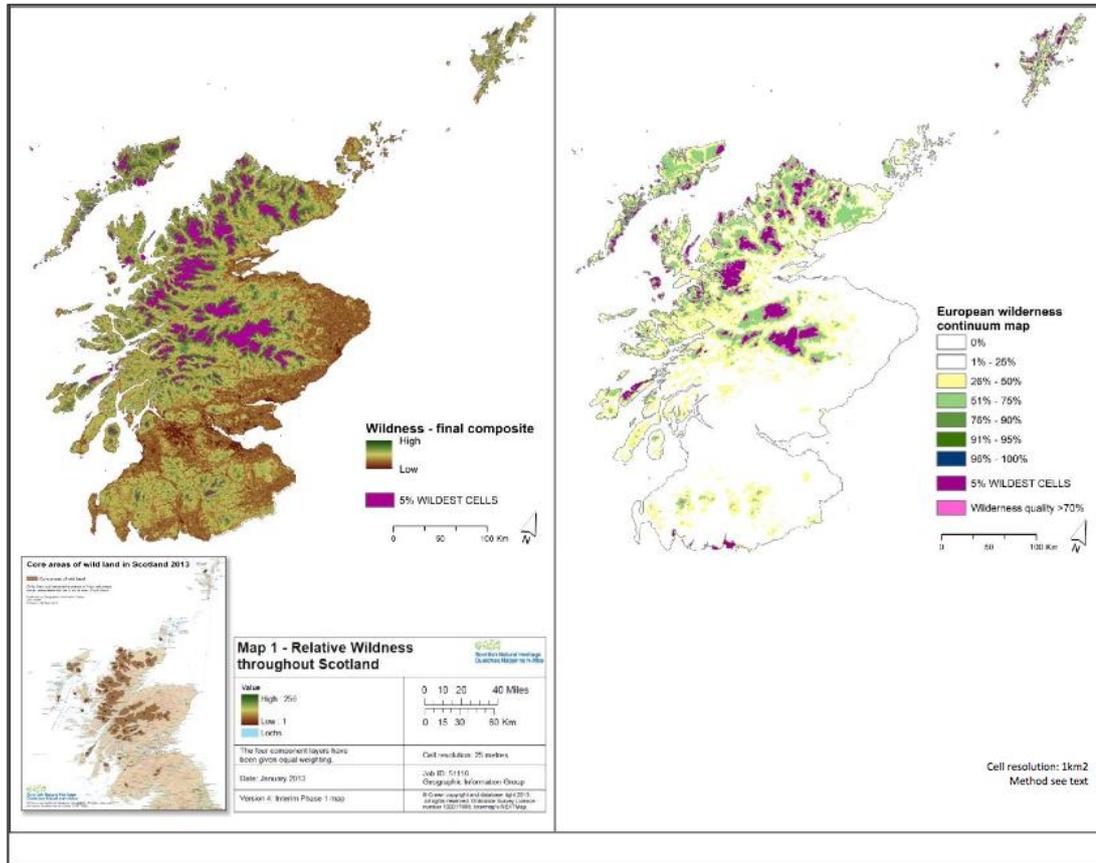
Figure 5.2 Wilderness map for Scotland (left) compared with a cropped area of the European draft wilderness indicator map (right) (Kuiters *et al.* 2013, p. 68)

Of the differences, the document notes that:

> The European map is purely focusing on wilderness areas, and thus excluding extreme areas which do not have any score on one of the sub indicators… The Scottish regional wildness map is looking more for a gradually increasing wildness value with the majority of the region having values more than zero and anthropogenic areas included in the classification. The final relative wildness mapping has been created by adding the various attribute strengths together, this method can thus not take into consideration of how extremes in each of the used attributes may affect wildness (Kuiters *et al.*, 2013, p. 70).

The EU's marine legislation does not discuss wilderness. The Integrated Maritime Policy notes that sustainable resource use is important for the competitiveness of marine industries (COM(2007) 575 final, Art. 2), and that the Common Fisheries Policy must reflect the ecosystem-based approach (COM(2007) 575 final, Art. 4.1.). Of the marine Natura 2000 sites, it is noted that more than 200.000 km2 of EU marine waters are covered, yet significant gaps exist especially in the offshore regions (SWD(2012) 255 final, p.39).

The Marine Strategy Framework Directive (European Parliament and Council Directive 2008/56/EC) gives instructions on how to achieve good environmental status of the marine environment by the year 2020 at the latest. One of the main goals is to 'protect and preserve the marine environment, prevent its deterioration or, where practicable, restore marine ecosystems in areas where they have been adversely affected' (European Parliament and Council Directive 2008/56/EC, Art. 1(2a)). Good environmental status is defined as:

> [T]he environmental status of marine waters where these provide ecologically diverse and dynamic oceans and seas which are clean, healthy and productive within their intrinsic conditions, and the use of the marine environment is at a level that is sustainable, thus safeguarding the potential for uses and activities by current and future generations (European Parliament and Council Directive 2008/56/EC Art. 3(5)).

The recitals of the Common Fisheries Policy (European Parliament and Council Regulation (EU) No 1380/2013) take note of the Marine Strategy Framework Directive, as well as international instruments laying down conservation obligations. They also note that:

In order to contribute to the conservation of living aquatic resources and marine ecosystems, the Union should endeavour to protect areas that are biologically sensitive, by designating them as protected areas. In such areas, it should be possible to restrict or to prohibit fishing activities. When deciding which areas to designate, particular attention should be paid to those in which there is clear evidence of heavy concentrations of fish below minimum conservation reference size and of spawning grounds, and to areas which are deemed to be bio-geographically sensitive. Account should also be taken of existing conservation areas. In order to facilitate the designation process, Member States should identify suitable areas, including areas that form part of a coherent network, and, where appropriate, should cooperate with one another, preparing and sending joint recommendations to the Commission (European Parliament and Council Regulation (EU) No 1380/2013).

It is also noted that the CFP measures should not contradict the Habitats Directive or the Birds Directive (European Parliament and Council Directive 2009/147/EC) in Natura 2000 areas. The actual legislative text refers to managing fish stocks in a sustainable level, with the ecosystem-based approach (Articles 2.1, 2.2 and 2.3). Article 7 lists types of conservation measures the Union may use, and Article 8 the rules for establishing fish stock recovery areas.

There has been a lot of scrutiny on the CFP after the reform took effect at the beginning of 2014. Particularly the measures for reaching the maximum sustainable yield exploitation rate (MSY) by 2015 where possible and 2020 at the latest for all stocks have been considered insufficient by the European Parliament and NGOs, especially as the fishing limits are continuously set above the ICES scientific advice (Białaś, 2015; European

Anglers Alliance, 2016; Seas At Risk, 2016). The continuous overfishing issue colours a lot of the public EU marine environment discussion.

5.4.1. Scotland, EU, and Brexit

On 23 June 2016, a referendum was held in the United Kingdom on the country's EU membership, and it voted to leave the European Union by 51.9% to 48.1% (with a turnout of 72.2%). Scotland, however, voted to remain by 62% to 38% (with a turnout of 67.2%). Scotland's first minister Nicola Sturgeon announced after the vote that she would explore all options to keep Scotland a member of the EU, including, if necessary, a second independence referendum (Office of the First Minister of Scotland, 2016). However, the Common Fisheries Policy has been a contentious issue throughout the referendum debate, and the Scottish fishers have been among those most in favour of leaving the EU in the country. Before the referendum, the Scottish Fishermen's Federation, while not giving any official recommendations on which way to vote, indicated that leaving the EU would mean restoring jurisdiction over a significant fishing area in the North Sea, and escaping the 'micromanagement' from Brussels (Scottish Fishermen's Federation, 2016b). Afterwards, the industry has expressed disagreement with the First Minister's plans to fight to keep Scotland a part of the EU (Carrel, 2016; Scottish Fishermen's Federation, 2016a). Environmental economist Griffin Carpenter has pointed out that many of the significant issues with the British fishing quotas lay with the decisions made by national government rather than the EU (Carpenter, 2016), and the former Fisheries Commissioner Maria Damanaki has stated that it is an 'illusion' to assume that Brexit would mean Britain being able to set its own catches without international input (Harvey, 2016). *Save Scottish Seas* has pointed out that, among other uncertainties, Scotland stands to lose hundreds of millions of Euros in EU funding, some specifically allocated to fisheries management (Save Scottish Seas, 2016).

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At the moment, it is impossible to predict what the consequences will be for British environmental legislation. Scotland's fate as a member of both the United Kingdom and the European Union remains equally uncertain. However, considering the level of assimilation in European politics, and the political intent in Scotland to stay connected with the EU, it is unlikely that the interaction between the two legislative frameworks will cease altogether. As the European cultural sphere is even more unlikely to be significantly impacted, the perceptions and impressions of wilderness are likely to be continuously shared across borders.

5.5. Conclusion

So how is the concept of *wilderness* understood by policy makers and law? The concept of terrestrial wilderness in Scotland has been carefully thought through, with the government agreeing that *wilderness* as such does not exist in the country. Instead, it opts for the term *wild land*, which allows for more fragmentation and historical human influence. The benefits of these wild lands are acknowledged and gladly used, among other things for the benefit of the disadvantaged and ill. *Wilderness* has not, however, been completely abolished from the Scottish vocabulary. While it is not considered an appropriate regulatory term, it is still used in discussions on *wilderness experience* and *wilderness quality* – a Scottish landscape can still be experienced as wilderness, even if officially it is "only" wild land. *Wilderness*, therefore, becomes a descriptive, rather than prescriptive term, what SNH calls *wildness*. In the CAWL consultation responses, some hail this approach as proper and worthy of upholding, others express concern in relation to confusion and insufficient protection.

Many texts reflect similar attitudes and topics to the newspaper articles. In Scotland, the question of blending conservation and development projects is a significant one. The concept of a *working wild* is presented as a solution, with engagement and sustainable consumption of the environment accepted as a key part in local development. At EU level, the European Parliament supports the development of ways for local communities to benefit from tourism and recreation, in cooperation with other sectors.

In terms of facilitating access, gaining health benefits from wilderness is discussed also in terms of financial support. Beneficial effects for children, as well as adults with schizophrenia and psychosis are brought up especially.

In contrast to the terrestrial, marine wilderness remains something of a footnote. When *wilderness* is defined as something experienced by humans, it leaves areas not visited in a somewhat awkward position. Obviously marine areas cannot be *wild land*, but can they be considered *wilderness*, if nobody is out there having a *wilderness experience*?

The European Union appears to be determined that *wilderness* is still "out there", both on land and at sea. The push for *wilderness* conservation seems to come mainly from the European Parliament, lobbied by environmental NGOs, both in the form of the Wilderness resolution (2008/2210(INI)) and the MEP's written questions urging the Commission to improve. *Wilderness* is indeed slowly becoming incorporated in the Habitats Directive and the Natura 2000 policy. Yet *marine wilderness* seems to remain somewhat outside the main focus. It is not mapped, and the guidelines in marine legislation do not seem to consider limiting human influence a value as such.

5.5.1. A typology of wilderness discourses

From the analysis of scientific literature (Chapter 2) discourse analysis of newspapers (Chapter 4) and discourse analysis of legislative and policy texts, different interpretations of *wilderness* are starting to emerge, which can be categorised thus:

- **Dangerous wilderness** is the place where adventurers get lost and even die, and where murderers hide either themselves or the victims of their bodies. A fictional variety of this often serves as a backdrop for dramas and tragedies.

- **Useless wilderness** is created when the authorities declare an area that was previously inhabited or worked by people, a wilderness, limiting or completely forbidding any use or extraction.

- **Messy wilderness** turns up in urban or semi-urban environments, when a garden, park, or estate is left unmaintained.

- **Metaphorical wilderness** happens to people who lose their previous success, professional or otherwise, or otherwise fade to obscurity.

- **Working wild** is an alternative to useless wilderness, one where human presence is accepted and utilised.

- **Experienced wilderness** is where one feels like s/he is in the wilderness.

- **Healing wilderness** is where one can experience the mental and physical health benefits of wilderness.

- **Untouched wilderness** is the traditional idea of a natural, often aesthetically impressive environment with no human influence.

Figure 5.3 below presents an idea of how the interpretations might relate to each other. The y-axis presents a scale from negative to positive interpretation of the term, and the x-axis the increased degree of (observed) naturalness. Four of the terms, *messy, metaphorical, useless,* and *dangerous,* are clearly more negative, whereas *untouched, experienced,*

healing, and *working* are generally considered positive. *Messy wilderness* is given a low score on both scales, as it is generally unwanted but only appears in urban environment. *Metaphorical* is similarly negative, but as it tends to refer to people rather than environment, it is neither particularly natural nor urban. *Useless* and *dangerous* are both highly natural and highly negative, the latter even more so due to its potential lethality. *Experienced* and *healing* receive the same values on both axes, and it can be assumed that where wilderness is experienced, the wilderness healing benefits can also be enjoyed. These two interpretations are very positive, but their naturalness is somewhat subjective. *Working wild* is also presented as positive, but it is not entirely without human impact. *Untouched wilderness* is, as mentioned above, the ideal without any human impact, and considered positive for most people working with wilderness, but it is considered negative by those who consider it limits their life and livelihood.
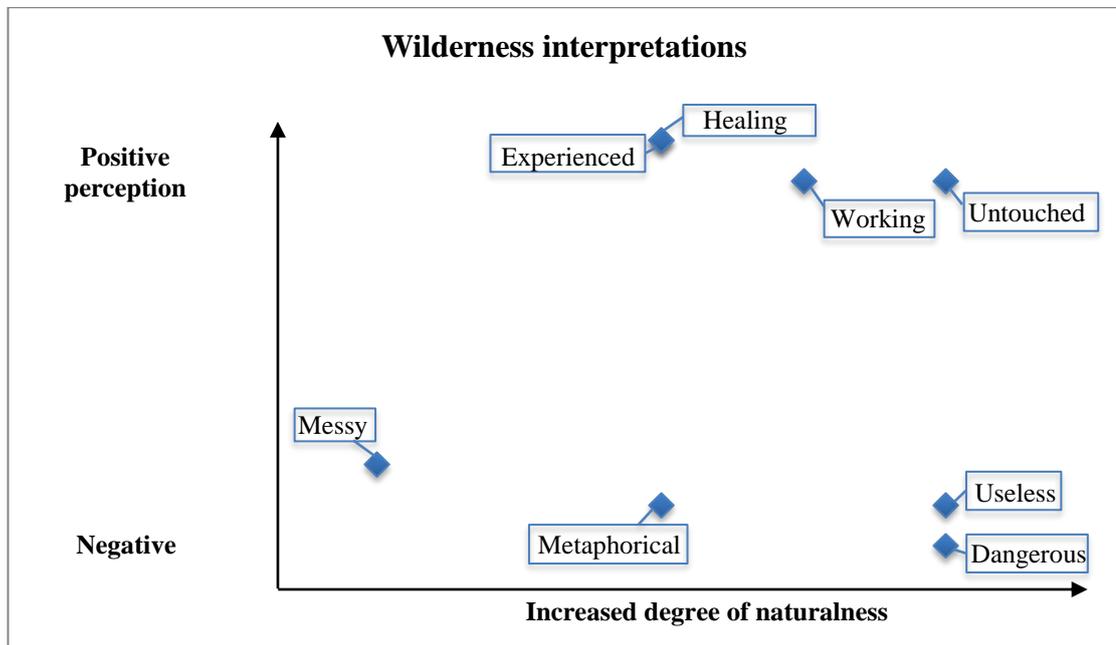
Figure 5.3 Wilderness interpretations

6. SURVEYS

While the discourse analyses were used to examine the views and opinions of the society, government and people at large, the purpose of the surveys was to gauge the views of those who had a personal experience on the Scottish coastal and marine areas. This chapter presents the exploratory study (Chapter 6.1.), conducted in the spring of 2014, and the online survey (Chapter 6.2.), conducted in the autumn of 2015.

6.1. The exploratory study

The exploratory study was used to gather the first set of data for this thesis, in order to examine the feasibility of the research questions. The two research sites were selected to represent different types of Scottish coastal environment, with different levels of human impact.

6.1.1. Research site 1: St. Abb's Head
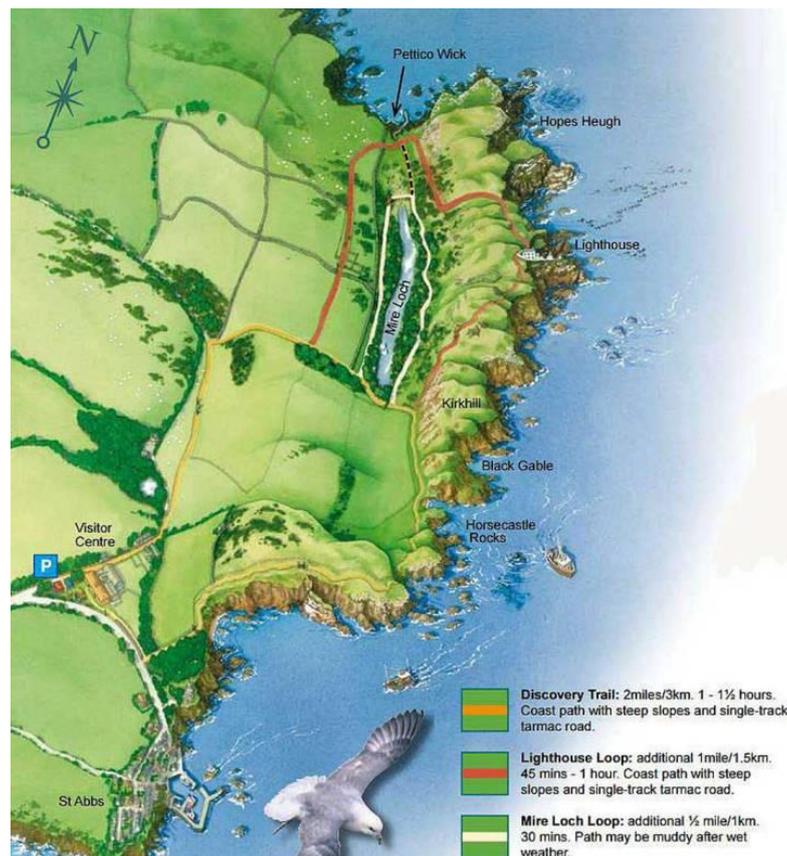
Figure 6.1 Map of St Abb's Head (National Trust Scotland)

St. Abb's Head is a National Nature Reserve on the south-eastern coast of Scotland, in the county of Berwickshire. Figure 6.1 displays the map of the area. The reserve is managed by the National Trust for Scotland. It is designated a Site of Special Scientific Interest, a Special Area of Conservation, and a Special Protection Area. The area is characterised by volcanic cliffs, rising up to 150 meters, making the reserve an important seabird nesting site (Scotland's National Nature Reserves, 2012). The adjacent coastal waters have been preserved under the St. Abbs Head and Eyemouth Voluntary Marine Reserve since 1984 (St. Abbs Head and Eyemouth VMR, no date). Sheep grazing, in cooperation with the nearby farms, is used in the management of the protected grassland at St. Abbs Head. Among other species of fauna and flora, this preserves the area as a suitable habitat for the

Northern Brown Argus butterfly (*Aricia artaxerxes*), which is a notable visitor attraction (Scotland's National Nature Reserves, 2011b).

The earliest signs of human habitation in the area date back to the Iron Age. The Northumbrian princess Aebbe founded a Christian community in the area in the 7th century, giving the area its name (The National Trust for Scotland, no date), while the current village of St. Abbs traces its history back to the early 19th Century (St. Abbs Community, no date). The NNR sees roughly 45,000 visitors each year (Liza Cole, personal communication 2014).

St. Abb's Head makes an interesting site to study the perceptions of wilderness, as it is not very far removed from permanent human habitation (the village of St. Abbs can be seen from certain locations within the reserve, and there is an old lighthouse inside it), and the sheep are always present – and, as mentioned above, vital to the preservation efforts. Yet the high volcanic cliffs create a rather iconic image of the Scottish coastline. Additionally, it is easily accessible, and thus may give the opportunity to experience *wilderness* to those who are less able to travel and hike. It also attracts plenty of divers, who have a unique perspective on the *marine wilderness.*

6.1.2. Research site 2: The Isle of Rum

Figure 6.2 Map of the Isle of Rum (The Papar Project)

The Rum National Nature reserve is located on the Isle of Rum (see Figure 6.2. for map), one of the Small Isles off the west coast of Scotland. The Reserve is about 108 km^2 in size, and designated a SAC, SPA and SSSI. In terms of fauna, the area is significant particularly for its seabird colonies, including Manx shearwater (*Puffinus puffinus*), as well as an otter (*Lutra lutra*) population. In terms of habitat, over 70% of the island is considered internationally important habitats. The grazing of red deer (*Cervus elaphus*) and small number of cattle are used for managing these habitats (Scotland's National Nature Reserves, 2010). Research projects, currently funded by NERC, have been studying the Rum deer population since 1958, when the isle was acquired by the Nature Conservation Council (Isle of Rum, 2013).

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There has been human inhabitation on the isle for thousands of years, possibly back to the Stone Age. In the early 19th century, the 350 inhabitants were forcibly removed to be replaced by a sheep farmer tenant, and between 1894 and 1958 the island was privately owned. The last owner, George Bullough, had the Kinloch Castle built on the island, and when his widow sold the island to the NCC, preservation of the castle was a condition on the agreement. (Scotland's National Nature Reserves, 2011a, the Kinloch Castle tour 6th June 2014.) The current community at the village of Kinloch consists of approximately 40 inhabitants. The Isle of Rum Community Trust purchased the village land and assets from SNH in 2009/10 (*Welcome to the Isle of Rum*, no date). At least 10,000 people visit the island yearly (Scotland's National Nature Reserves, 2010).

Rum is a very different research site to St. Abb's Head. As an island, about 25 km from the coast, it has a more remote feel. A very small area of the island is inhabited, and the terrain is in many areas very rough. Yet the area has been inhabited throughout human history, sometimes by much larger populations than presently, and the island has in the course of history been completely deforested and is now being slowly reforested. The presence of deer, otters, birds and marine mammals, as well as the rough weather and the numerous midges can also be expected to affect the 'wilderness' experience.

6.1.3. St. Abb's Head data gathering

The residents and visitors of St. Abb's Head and the village of St. Abbs were contacted over a period of five days in May 2014. The residents were approached in a village council meeting, where twelve resident survey questionnaires were distributed among the council members. As only two of those questionnaires were returned, they were not subjected to

separate analysis. Instead, they are analysed together with the responses from Rum in the subchapter 6.1.8.2.

Visitors were approached in the reserve, where the Lighthouse Loop trail joins with the Discovery trail on the western side of Mire Loch (see figure 1). The location is on top of a hill, with a view towards the loch. Twelve surveys were filled. One person refused to fill the questionnaire when requested, whereas in two groups one person was appointed to complete the survey. One pair of hikers insisted on filling the survey together. The researcher was present when the surveys were filled, and in one case wrote down an interviewee's answers for her, and thus was able to make note of the respondents' thoughts and comments. Twelve visitor surveys were left with a local diving operator with self-addressed stamped envelope, to give to the divers to fill, five were later returned. The park ranger was interviewed in person.

6.1.4. Rum data gathering

In the Isle of Rum the responses were gathered over five days in June 2014. The village residents were approached at the village shop. Five filled questionnaires were returned, another seven were taken home with self-addressed stamped envelopes to be filled in private and returned later. Those questionnaires were not returned. Visitor questionnaires were distributed at the hostel and at the village café. Fourteen responses were acquired, no respondent refused. Unlike at St. Abb's Head, the visitor respondents were spread out in large spaces when filling the questionnaires, and the researcher was not always within hearing distance. One member of the SNH staff in the reserve was interviewed in person. Some time was also spent discussing with the island residents in a more informal manner.

6.1.5. Questionnaire design

As the Scottish authorities have decided to use the term wildness rather than wilderness, the latter word was used in the questionnaires. The remarks made by the respondents suggested that the choice of words did not particularly affect their responses. The visitor questionnaire can be found in Annex 1.

The wilderness visitor survey is based on a similar one the researcher used to study wilderness perceptions in the Hornstrandir nature reserve in Iceland (Kuuliala, 2012). The questions have been selected to gauge the respondents' views as comprehensively as possible, both through abstract concepts and concrete features. The adjectives in question 5 were gathered from various academic and non-academic sources discussing wilderness and wilderness experience.

The resident questionnaire is based on the participatory management studies of Pimbert and Pretty (1995), McNeely (1994), Brown (2003), Tranel and Hall (2003), and Marega and Urataric (2011) discussed in Chapter 2.3. The questions were selected to gather the respondents' views both on management priorities and personal experiences of management participation. The options in question 8 are from the typology of participation in Pimbert and Pretty (1995). See the literature chapter for more detailed discussion on these articles. The question on respondents' NGO membership and support is based on Bride (2002).

6.1.6. St. Abb's Head results

This chapter presents the results gathered from the St. Abb's Head NNR. The actual questionnaires are provided in Annex 1.

6.1.6.1. Wildness

6.1.6.1.1. Visitor profiles

Of the seventeen questionnaires, eight were filled by men, eight by women, and one by one of each. Figure 6.3 illustrates details of the visitors
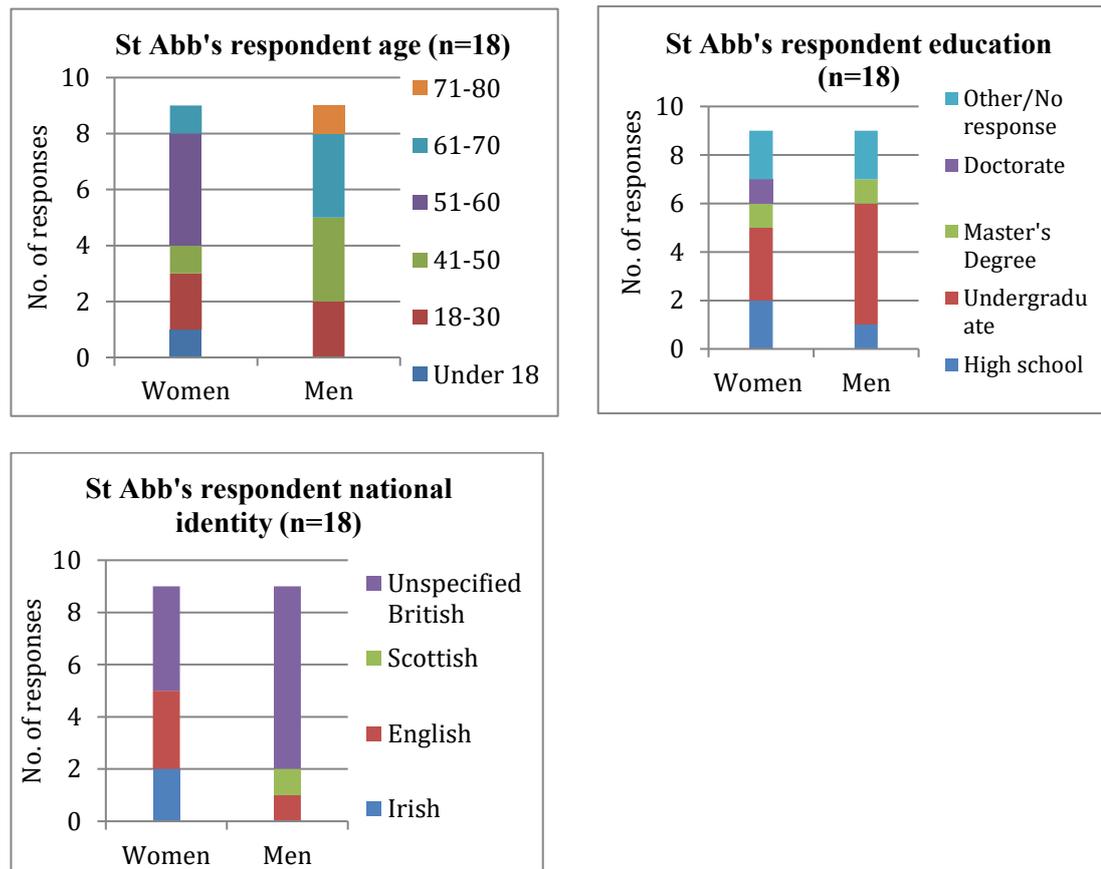

Figure 6.3 St Abb's visitor data

When asked about their reasons for visiting St. Abb's Head (question 1), nine out of seventeen respondents mentioned a particular activity that had attracted them to the location. As mentioned above, for five people that was diving. One of the divers also mentioned photography, while another noted that the area offers excellent accommodation, and that there are other good diving sites nearby. The other four respondents mentioned

walking as the attraction. One person said they were visiting family, while other was returning to a place where they had spent their childhood holidays.

Four respondents said they were first-time visitors, one visited the area monthly, six yearly, and five less than yearly. One respondent did not answer the question about visiting frequency.

On question 2 about general nature reserves visiting habits, one person did not respond. Three persons responded that they did not visit nature reserves,, or that they did 'not really visit' or 'not often'. Eleven respondents visited reserves around the UK, often several times a year, while two reported visiting reserves outside the UK (one 'all over the world', another one in Egypt). One respondent noted that they live in a reserve, while other two made similar comments to the researcher while filling their questionnaires.
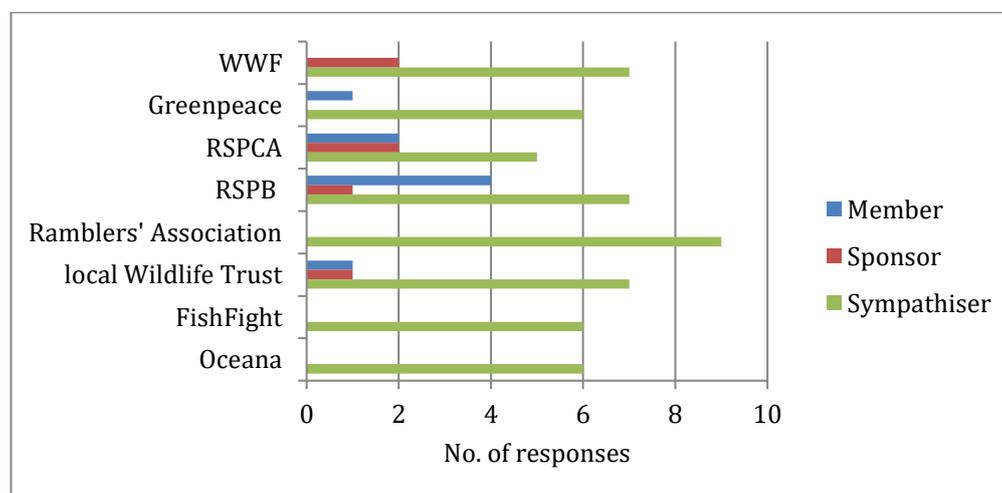
Figure 6.4 St Abb's respondent NGO affiliations

Figure 6.4 shows the respondents' NGO affiliations. Other NGO's mentioned were Friends of the Earth, Marine Conservation Trust, MARINET, John Hume Trust, National Trust, Historic Scotland, and Sea Shepherd

When asked about newspaper preferences (question 12, Figure 6.5), fourteen respondents chose one newspaper. One person responded that s/he would pick both Daily Mail and The Sun, one both The Guardian and The Independent. Two did not respond to the question, although one of those wrote in the margin that they would read The Times.
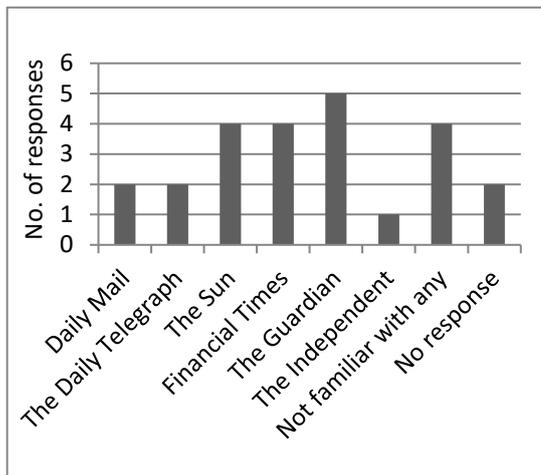
Figure 6.5 St Abb's respondent newspaper preferences (n=18)
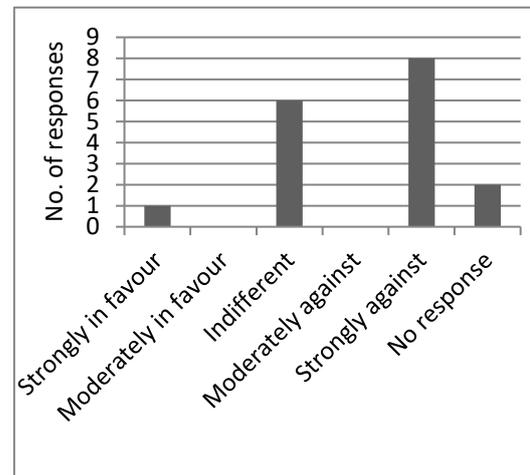
Figure 6.6 St Abb's respondent opinion on the Scottish independence (n=17)

Question 13 (Figure 6.6), which asked about the respondents' opinion on the independence of Scotland, caused a fair amount of comments. Several of the respondents who came outside of Scotland, noted that they were reluctant to comment on the issue as the Scottish should decide among themselves. One respondent decided that the question was not relevant. Interestingly, the 'moderately in favour' and 'moderately against'" options were not selected by anyone.

6.1.6.1.2. Wildness of St. Abb's Head

St. Abb's Head's wildness was given the average score of 3.77 on a five-point likert item (question 4). Figure 6.7 illustrates the distribution of the answers. One of the people giving the value 5 was a diver who noted that while 5 applied to the underwater area, the area above water was rather worth 3. The reasons given for lower wilderness rating included roads, the presence of people, infrastructure, and signs of farming, such as sheep, cattle,

fences, gates, and grazed land. Reasons for wilderness included wildlife, birdlife, limited amount of people, cleanness, natural fields, and marine life.
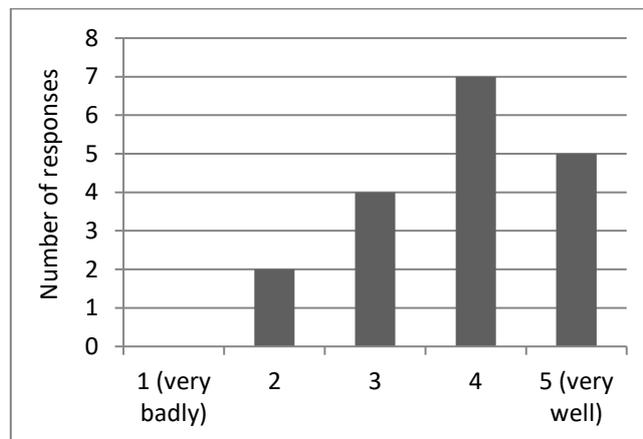

Figure 6.7 Responses to question 4: How well do you think the word "wildness" describes this area? (n=18)

In question 5, the respondents were asked to assess the appropriateness of certain words to a wildness area or visiting a wildness area. The assessment was done by choosing the most appropriate of five points between two words with the opposite meaning (for example happy-sad). In Figure 6.8, a word has been given the score of two if chosen to be very appropriate, and score of one if considered to be moderately appropriate. It was noted by a couple of respondents that they were filling the questionnaire right after climbing a relatively steep hill (Discovery Trail coming up from the loch), which affected their exhausted-energetic experience, yet 'exhausted' received no scores. One individual noted that they were giving the area a high secular score (secular-spiritual), as they were a very secular person. Unknown-familiar, quiet-noisy, boring-interesting, rough-smooth, secular-spiritual, Scottish-non-Scottish, developed-primitive, small-large, unstimulated-stimulated, connected-disconnected and vulnerable-invulnerable pairs were not graded by one respondent each.
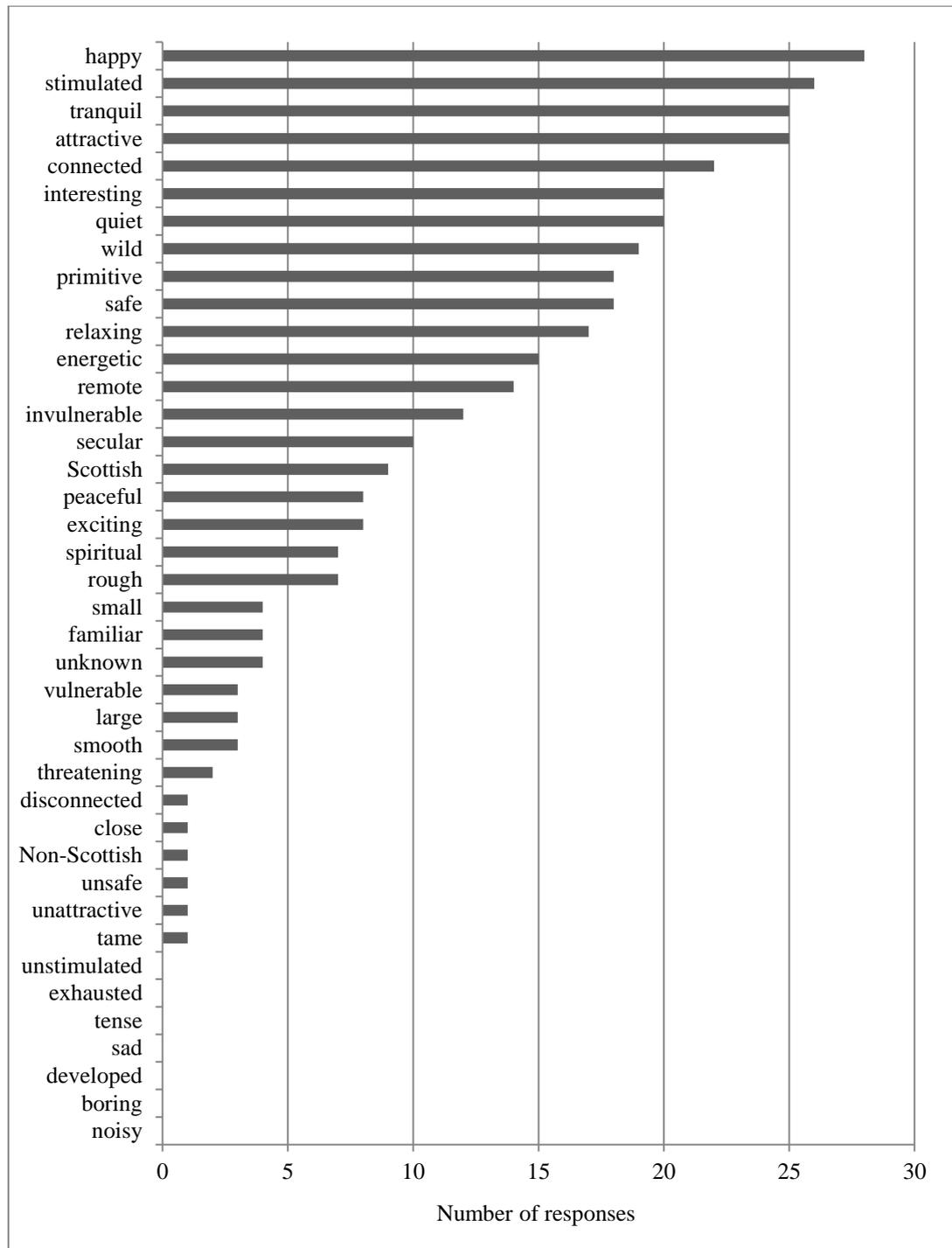
Figure 6.8 Responses to question 5: Word appropriateness for wilderness experience in St Abb's (n=18)
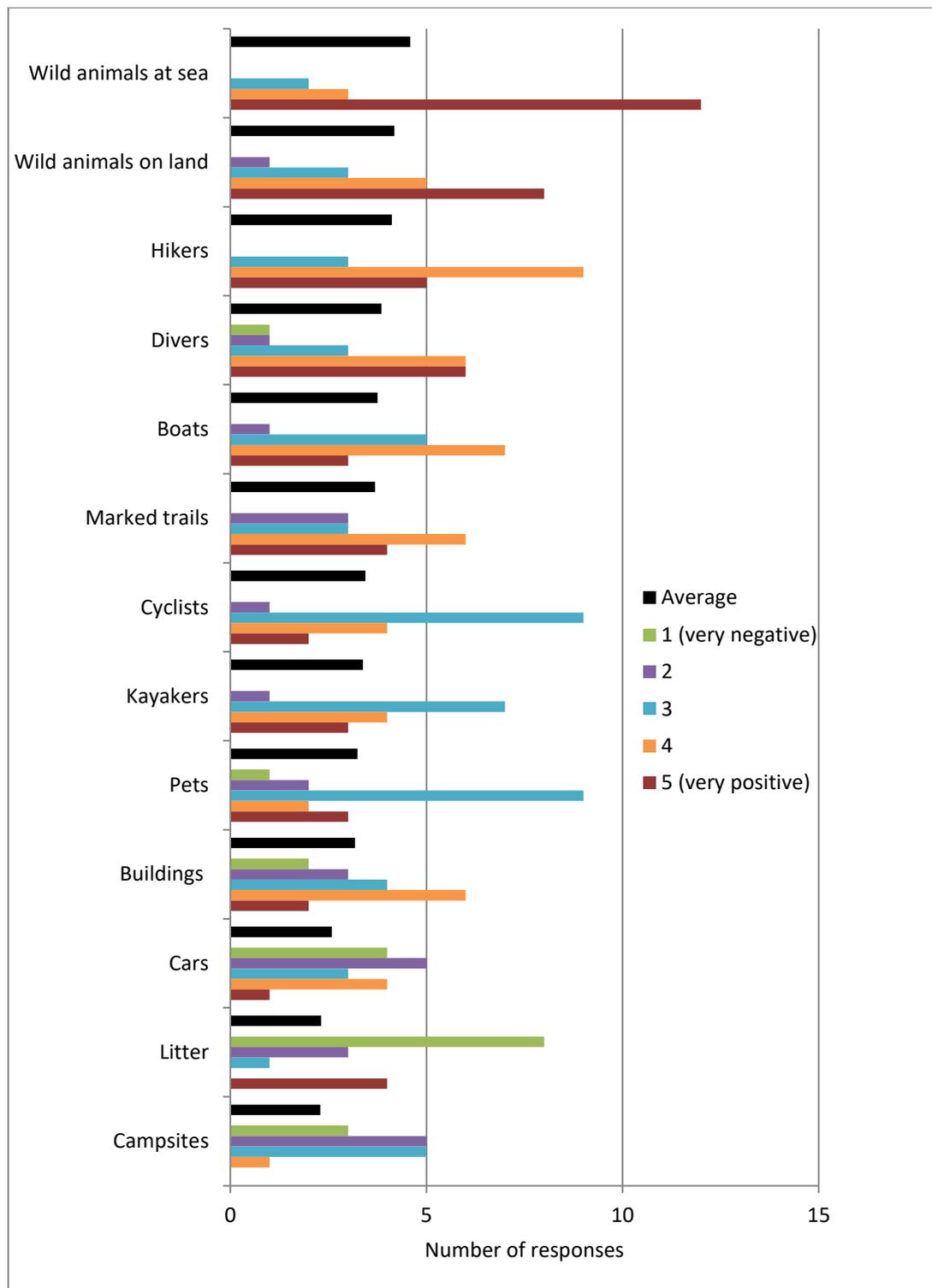
Figure 6.9 Responses to question 6: The effect of features on personal wildness experience in St Abb's (n=18)

The visitors were also given thirteen features and asked to evaluate and comment on how they affect their personal wildness experience (question 6, Figure 6.9). The effect on

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experience was evaluated on a five-point Likert item, with 1 referring to a very negative and 5 to a very positive effect. Campsites were not evaluated by three respondents, kayakers by two and trails, litter, boats, and cyclists by one respondent.

All eight respondents who commented on the buildings noted that the buildings in the area are in character with the area. More modern infrastructure would have been deemed to have more of a negative effect. Campsites received seven comments, three of which came from the respondents who did not give a value, noting that they had not visited the campsites. Other respondents saw the campsites as a "necessary evil", apart from one respondent who simply stated that they "hate campsites".

One person noted that they had not seen any marked hiking trails, and one that she personally does not need them, the other five who commented were positive, noting that having marked trails makes navigation and access easier. The presence of wild animals both on land and in the sea, which received the highest average scores, got purely positive comments, although some lamented not seeing any. The five comments given on litter were somewhat more contradictory, with two people noting that they had not seen litter, two that the area could do with some work in that regard (clean up and more bins), and one stating being "appalled by it".

The signs of visitors in the area (cars, boats, pets, hikers, cyclists, kayakers, and divers) received quite neutral comments. Cars were noted to be few and far between, and needed for those with mobility impairments. Boats were noted to bring tranquillity, or to be necessary for fishing. The presence of dogs was generally welcomed as long as there was no mess left behind, although one respondent noted that she was giving a low score as she

"hated dogs". The presence of people on foot or bike was also deemed fine, as long as everyone was friendly.

When asked about other aspects that affected their wilderness experience (question 7), four people mentioned good or bad weather and four people mentioned landscape and its accessibility. Photography, lack of planes, infrastructure, wild fauna, and the local architecture received one positive mention each. One visitor praised the available accommodation, and one mentioned the "peace, smells, colours, the sea".

When asked about their views on differences between marine and terrestrial wildness (question 8), two noted that the requirements for the two are much the same, one noted that land feels safer and more predictable, while two praised the serenity and quietness of the sea. Different landscape (or seascape) was mentioned by two people, while the divers noted that the underwater wilderness is untouched and challenging, and offers more photo opportunities. When asked what the marine and coastal wilderness can offer that the terrestrial cannot (question 9), eight respondents mentioned different flora and fauna (including, but not limited to, fish, orcas, birdlife and plantlife), and three mentioned the different scenery.

Fourteen responses were given to question 10, which asked about the respondents' opinions how marine and coastal areas should be managed. Nine respondents mentioned protection, preservation, or leaving alone. Management and/or maintenance were mentioned by four respondents, one of whom noted that "St Abb's Head and [environment] is an excellent example of how coastal areas should be maintained for future generations". Two people mentioned encouraging access, while one recommended

removing plastic packaging and one reducing pollution. One respondent stated that the total area of land/coastal/marine wilderness should be increased.

It seems that the respondents at St. Abb's Head appreciate the aesthetics and accessibility of wildness. The variety of wildlife is considered very positive, and the increase of that variety brought by the marine environment is appreciated. Things not directly related to wilderness aspects, such as weather (which can affect both accessibility and visibility), accommodation and aesthetically pleasing local architecture, add to the pleasantness of the experience. Some of the respondents were also very open about the fact that they were not trying to be objective, but were scoring terms based on their own preferences (such as giving a low spirituality score if not a spiritual person, or negative score on dogs if not a dog person regardless of the actual number of dogs). Most of the respondents also appear to be in favour of continued and/or increased protection of coastal and marine areas. Also in this context, preserving and encouraging access is seen as very important.

6.1.7. Rum results

This section presents the results gathered on the Isle of Rum. The questionnaires are provided in the Appendix.

6.1.7.1. Wilderness

6.1.7.1.1. Visitor profiles

Of the fourteen respondents on Rum, nine were women and five were men. Figure 6.10 displays the age, level of education, and national identity of the respondents.
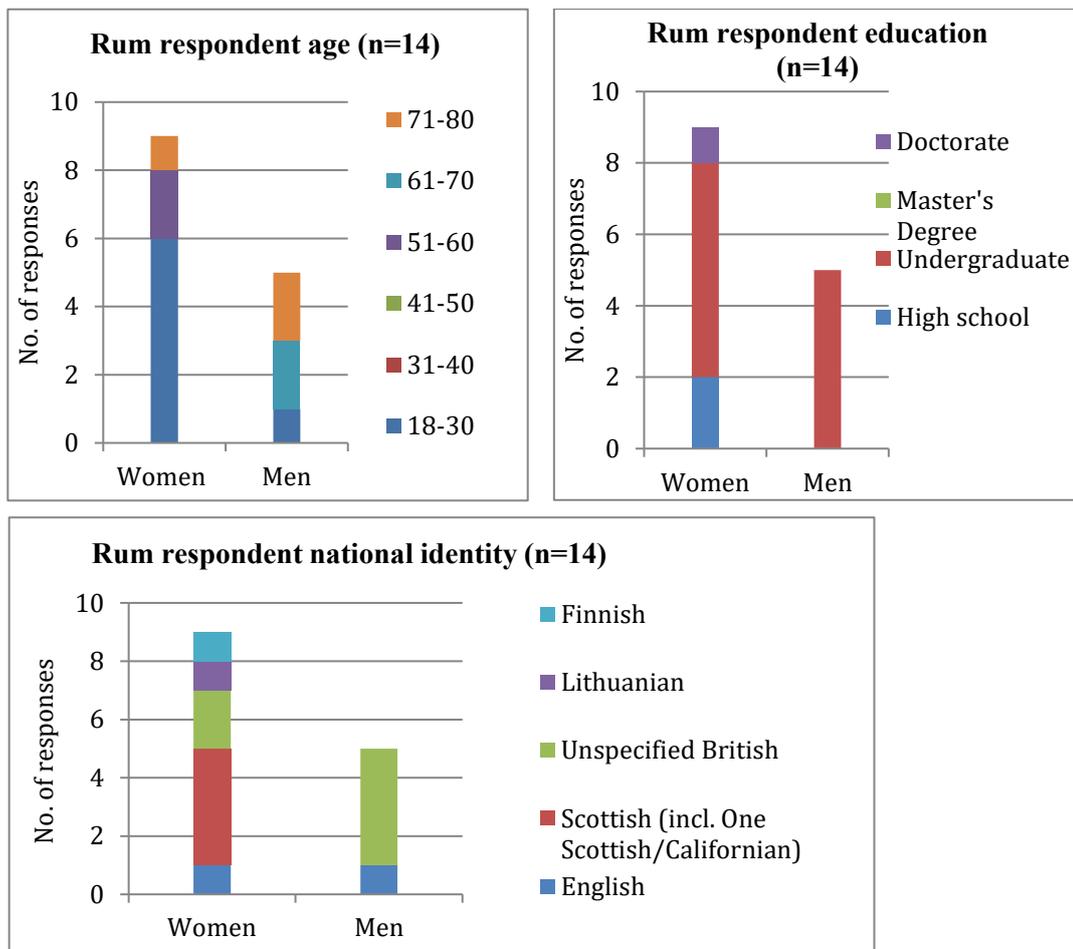
Figure 6.10 Isle of Rum visitor data

Seven respondents were on Rum for University projects. Two people gave sailing as the reason to visit the island, and four walking. Two people also mentioned Rum's nature as an attraction. Ten declared this to be their first visit to Rum, while three respondents said they visited yearly and one less than yearly. Four respondents reported no visits to other nature reserves, while the others visited various reserves around the UK.
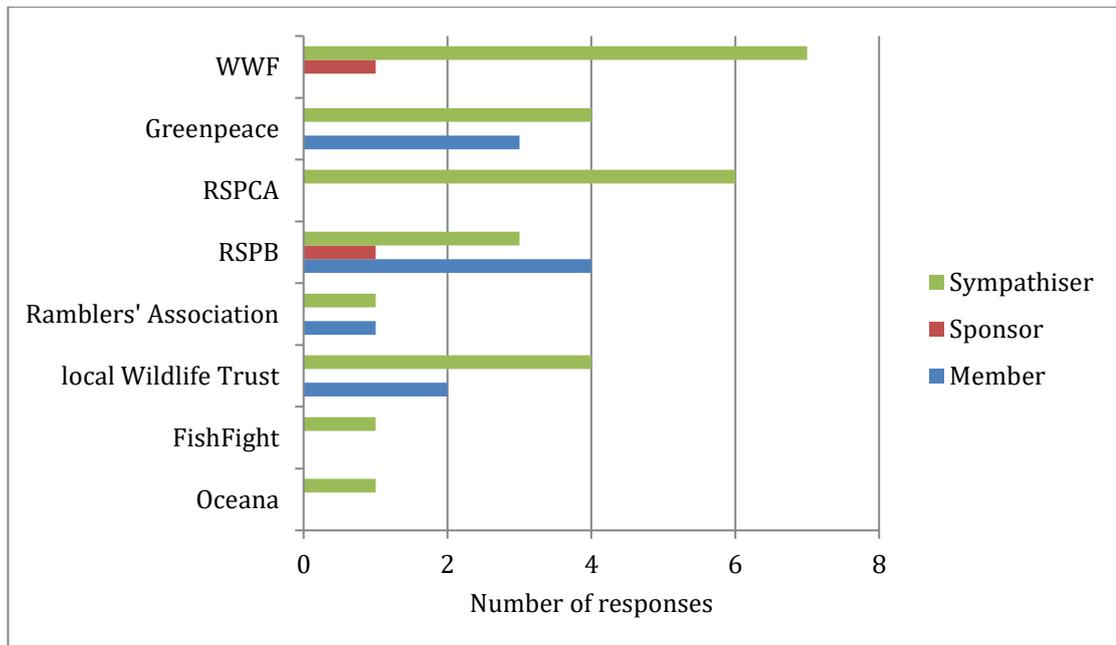
Figure 6.11 Rum respondent NGO affiliations (n=14)

Figure 6.11 shows the respondents' NGO affiliations. Other NGO's mentioned were NTS and MCS.
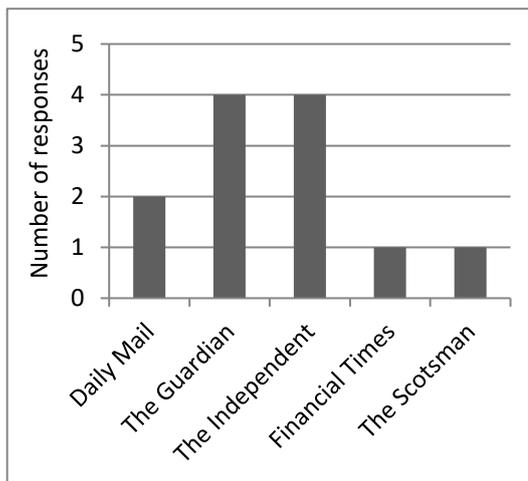
Figure 6.12 Rum respondent newspaper preferences (n=10)
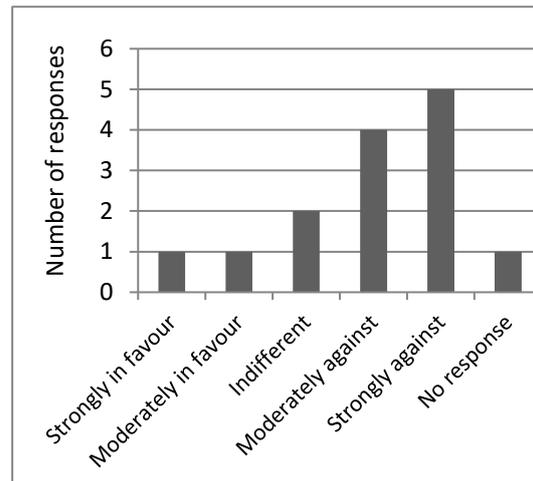
Figure 6.13 Rum respondent opinions on the Scottish independence (n=14)

Figure 6.12 illustrates the respondent's newspaper preferences. When asked about newspaper preferences (question 12), one respondent ticked both *Financial Times* and *The Independent*, and one both *The Scotsman* and *Daily Mail*. Figure 6.13 displays the respondents opinions on the Scottish independence, illustrating that most respondents were either moderately or strongly against it.

6.1.7.1.2. Wildness of Rum

Rum was given the average wilderness value of 4.14 (question 4, Figure 6.14). Several respondents mentioned limited infrastructure, small and concentrated human population with large undeveloped areas, and animal and plant life. The fact that all areas are accessible and have at some point been managed was mentioned as a factor limiting the categorisation of the place as wild. One person also considered the buildings to be "an eyesore and not well kept with outside environment".
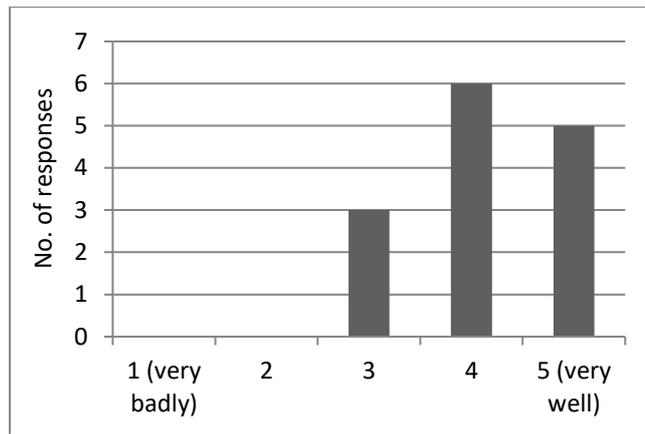
Figure 6.14 Responses to question 4: How well do you think the word "wildness" describes this area? (n=14)

A couple of respondents made notes on the margins of question 5, the results of which are illustrated in Figure 6.15. It was noted in relation to the question of 'Scottishness' that there are plenty of English people living on the isle. Another respondent noted that their high 'sadness' score (happy-sad) was due to personal situation. Unknown-familiar, secular-spiritual, Scottish-non-Scottish, remote-close, and small-large pairs were not evaluated by one respondent each.
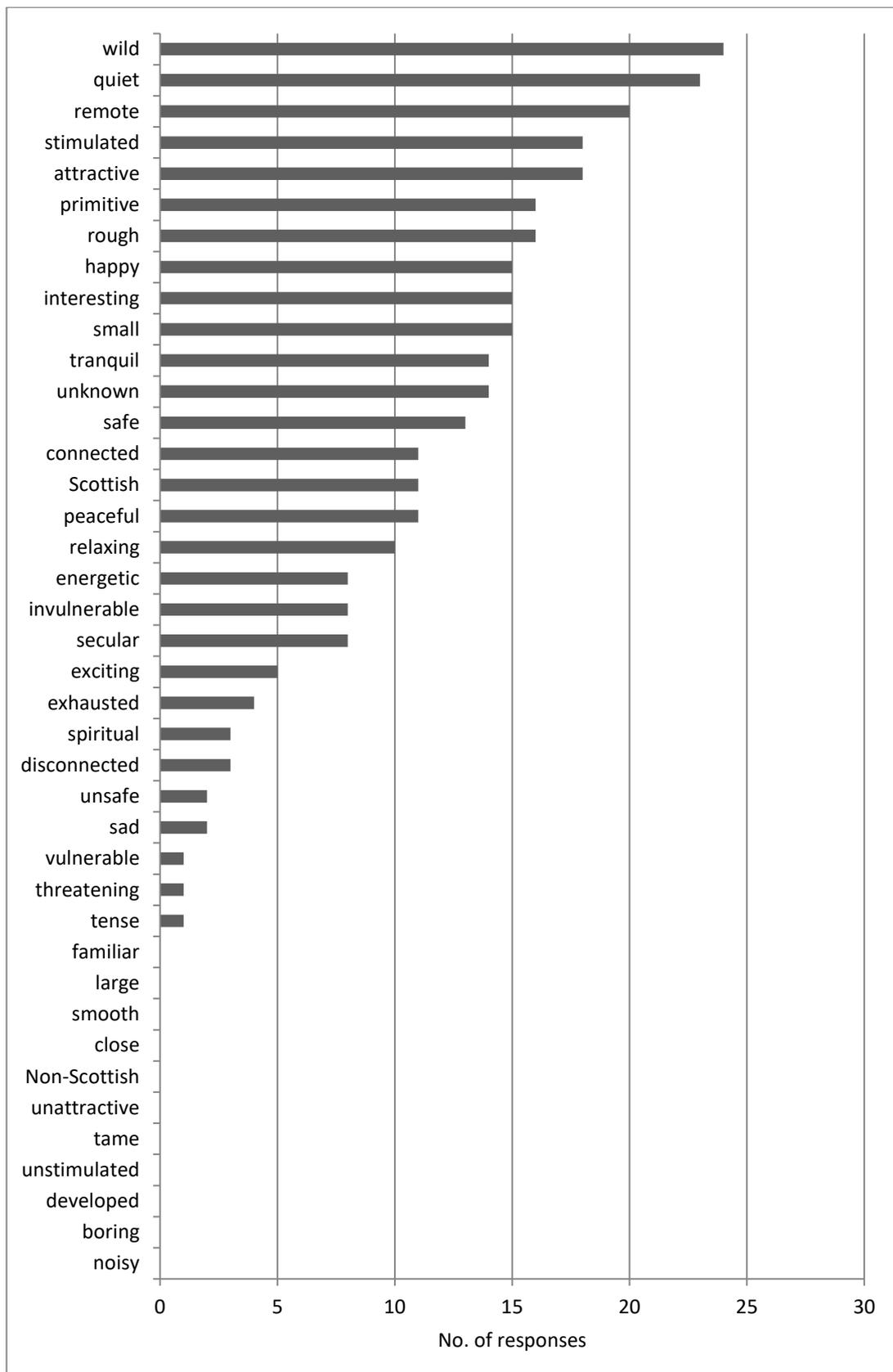
Figure 6.15 Responses to question 5: Word appropriateness for wildness experience on Rum
(n=14)
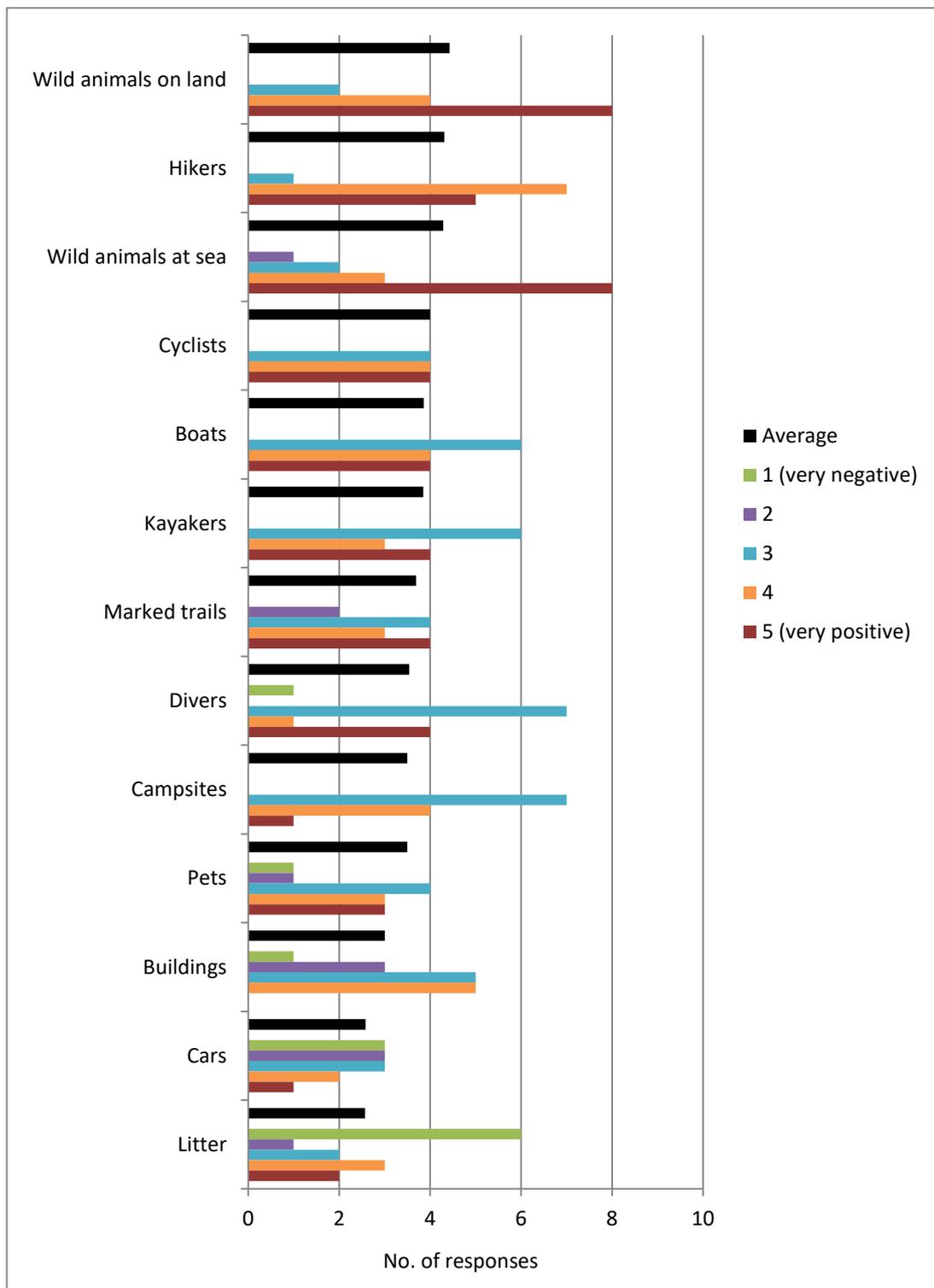
Figure 6.16 Question 6: The effect of features on personal wildness experience on Rum (n=14)

Responses to question 6 are tabled in Figure 6.16. Unlike the respondents at St. Abb's

Head, the respondents at Rum had the chance to fill the questionnaires sitting down, often

at a table, which led to them giving more and longer comments. Campsites, cars and cyclists were not evaluated by two and trails, hikers, kayakers and divers by one respondent each.

Twelve respondents commented on buildings. Three people noted that as the buildings are only in the village area, and even there they are not very clustered, it is easy to get away and they do not have a negative effect on the wilderness feel. The appearance of the buildings also received comments, with one person saying that they are historic and thus appropriate, one that most buildings blend in well but not all, one noting that buildings are "very unkept and run down," and one stating that they are "horrible". The Kinloch castle was mentioned by one respondent, who described it as "very interesting, but rather sombre". One respondent noted that old buildings are okay, but any new buildings should be integrated very carefully.

The campsite received mostly positive comments, focusing on how appropriately basic it is and how well it fits the environment. One respondent commented that "It's not exactly wild camping since it's a designated camping site and near facilities" while another described it as "camping rough – no proper campsites", possibly reflecting their different views on camping in general (the campsite is located by the road from the pier to the village, making it unlikely that the respondents would not have seen it). Two people praised the campsite for being well integrated in the landscape. The most comprehensive comment came from a respondent who wrote that: "The campsite is nice and compact, but slightly lacking in some necessities; it's also very small. Overall it's still very functional and 'fits' Rum's image and the simplicity that seems to be inherent in most things/services here".

Hiking trails also received mostly positive comments, particularly on the helpfulness. Some commenters noted that the paths are limited, which according to some adds to the wild and untouched feeling of the island. One person noted that they do not follow trails, and two commenters were of the opinion that they are not necessary, at least not in the hills. One person noted that they "take away from the wilderness experience, but for me personally makes it easier." Yet the path to Coire Dubh was criticised by one respondent for being poorly maintained and difficult to walk on.

Wild animals both on land and at sea received purely positive comments, although some respondent noted they had not seen any or at least not seen anything other than midges. Regarding land animals, it was noted that the more animals there is, the more wild the area feels, especially if the animals are something one does not see everywhere. Regarding animals at sea, it was noted that more protection is needed.

Regarding litter, five commenters out of nine praised Rum for having very little litter around. Others commented on marine debris, with one person noting that more effort is required especially by local fishers – it was, however, mentioned by the local inhabitants that the Spanish fishing vessels have a habit of dumping their trash on the Rum pier at night. One respondent was of the opinion that while items like sweet papers are bad, items washed up on the shores are actually "very much towards the wilderness". Yet, another commenter noted that litter "reminds you of the human influence on the land & reduces the feel of wildness." One respondent hoped for a few more recycling points/skips.

Most people who commented on cars noted that they had not seen any, or had seen very few. One person noted that they remind one that one "may not be somewhere fully 'wild'." Three others noted that sometimes a means of transport is necessary, either for work,

emergencies, or people with disabilities. Boats received purely positive comments, and were said to "add to the peaceful feel of the place" and "give a feeling of tranquillity," without distracting from the wilderness experience. One respondent noted that expensive yachts or speedboats would be negative but small fishing boats were positive.

The pets on Rum only received five comments, all noting that they are not a problem as they are well trained. One respondent commented that they do remind one of nearby villages, but do not have as strong an effect as the other factors. Hikers, cyclists, kayakers and divers all received similar kind of comments. It was considered nice to meet other friendly people exploring the environment, as long as everyone respected the environment. Two people noted that bikes might be a risk to trails, and "churn up the land" as has happened elsewhere in Scotland. One person reported having seen kayakers get to close to seals and scare them.

When asked about other aspects affecting their wilderness experience (question 7), five people mentioned midges. As one respondent noted, "[w]hile this certainly adds to the whole 'wilderness experience', a bit less would be great." Six people mentioned weather, one the "stunning" and "technically interesting" scenery, and one the fact that there are very few people on the island. One person noted that "the low maintenance of everything on the island makes it feel rural and wild, but in an unattractive way."

When asked about the main differences between wildness on land and wildness at sea (question 8), three people mentioned different plantlife and/or wildlife. Other things mentioned were the rugged landscape on land, ease of access, relative predictability of wildness on land, visibility of settlements on land and coastal towns and buoys at sea, and the greater feeling of security on land. One commenter noted that "at sea things can't fall

into disrepair". One respondent, who had arrived on the island at boat, praised the sea wilderness around Rum, stating that it is much more positive than around South Britain. One respondent noted that while s/he considered land wildness much more accessible, s/he prefers coastal areas to inland.

Regarding what marine or coastal wildness can offer that inland cannot (question 9), eight respondents mentioned the varied marine life. Other things mentioned included "different landscapes and activities", "true isolation", "greater dynamic & choice", "peace", "mystery", "different experiences of boating/diving", and "more chance to get away from civilisation". When asked about what should be done in the marine and coastal areas in the long term (question 10), all thirteen respondents were in favour of protection. Suggestions included injecting more money, control of fishing nets and stopping of bottom dredging, making the areas more accessible with information on what can be found on the areas, "huge penalties and sanctions" for pollution, more research and publicity on marine animals, and looking after them "in a way that allows people to live in remote areas and visitors to enjoy them, but still maintains the wildness of the area."

Again, aesthetics, accessibility and variety seem to be considered important by the respondents. As in St. Abb's Head, the added variety of marine wildlife was appreciated. It also appeared that for some, authentic, historic buildings may not be enough if they are too run down to be aesthetically pleasing. Detailed suggestions were given for future management, implying that people are to some degree aware of the issues affecting the marine environment, or at least the issues that are currently widely discussed (such as bottom dredging and trawling). Again, the balance between wilderness and accessibility was considered important in management.

6.1.7.2. Participation

6.1.7.2.1. Inhabitant profiles

Of the residents of Rum who filled and returned the inhabitant questionnaire, three were women and two were men. Two were between 31 and 40 years of age, two 18-30, and one 51-60. Three were College/University undergraduates, one had a High school background and one a Master's Degree. All were attracted to the island at least partially by work, some had been attracted to the island or to Scotland in general already, others said they had grown to love the place while living there. One was a SNH employee and one a voluntary worker. One had been staying on the island 11-20 years, two 1-5 years and two less than a year.
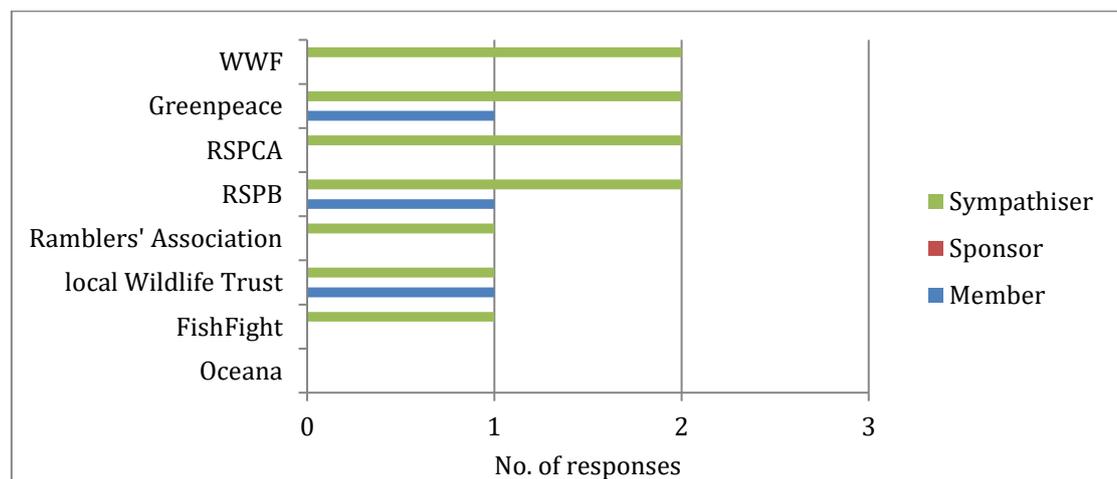

Figure 6.17 Rum inhabitant NGO affiliations (n=5)

Figure 6.17 illustrates the respondents' NGO affiliations. Other NGO's mentioned were BASC and Kew botanical gardens.

Four respondents mentioned visiting other Scottish nature reserves (question 3), in two cases several times a year, one had not "visited other nature reserves recently". For four respondents the existence of the Rum reserve was essential for their jobs (question 4). One

respondent added that it "keeps our island 'wild' [and] feeds my soul". One respondent did not answer the question.
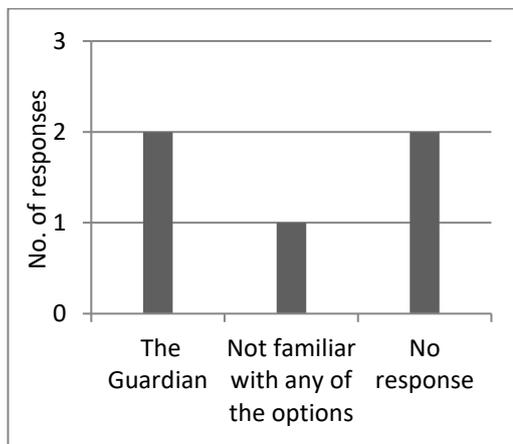

Figure 6.18 Rum inhabitant newspaper preferences (n=5)
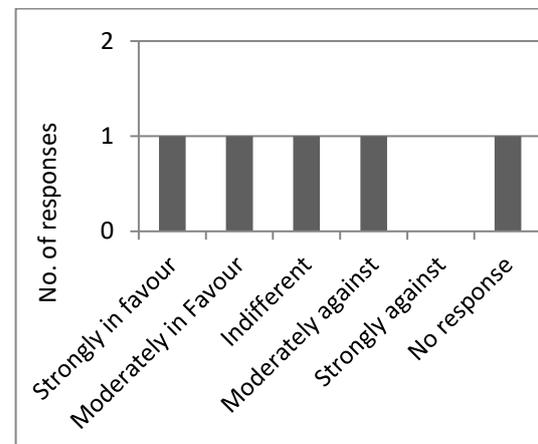
Figure **6.19** Rum inhabitant opinions on the Scottish independence (n=5)

Figure 6.18 displays the respondents' newspaper preferences. Figure 6.19 displays the opinions on the Scottish independence, illustrating a dispersion of opinions.

6.1.7.2.2. Participation in management on Rum

When asked about the three most important criteria in relation to management of Rum (question 5, Figure 6.20), one respondent did not grade their answers, but selected "tourism management", "ecosystem management", and "tourism revenue and employment."

When asked about how important participation was to them personally (question 6), three respondents gave 5 and two 3. It was considered important for people to be informed and involved, both because of their employment and the fact that it was their living environment in question. However, one respondent commented that while they liked to be consulted, "the actual decision making should be [professional conservationists'] alone."
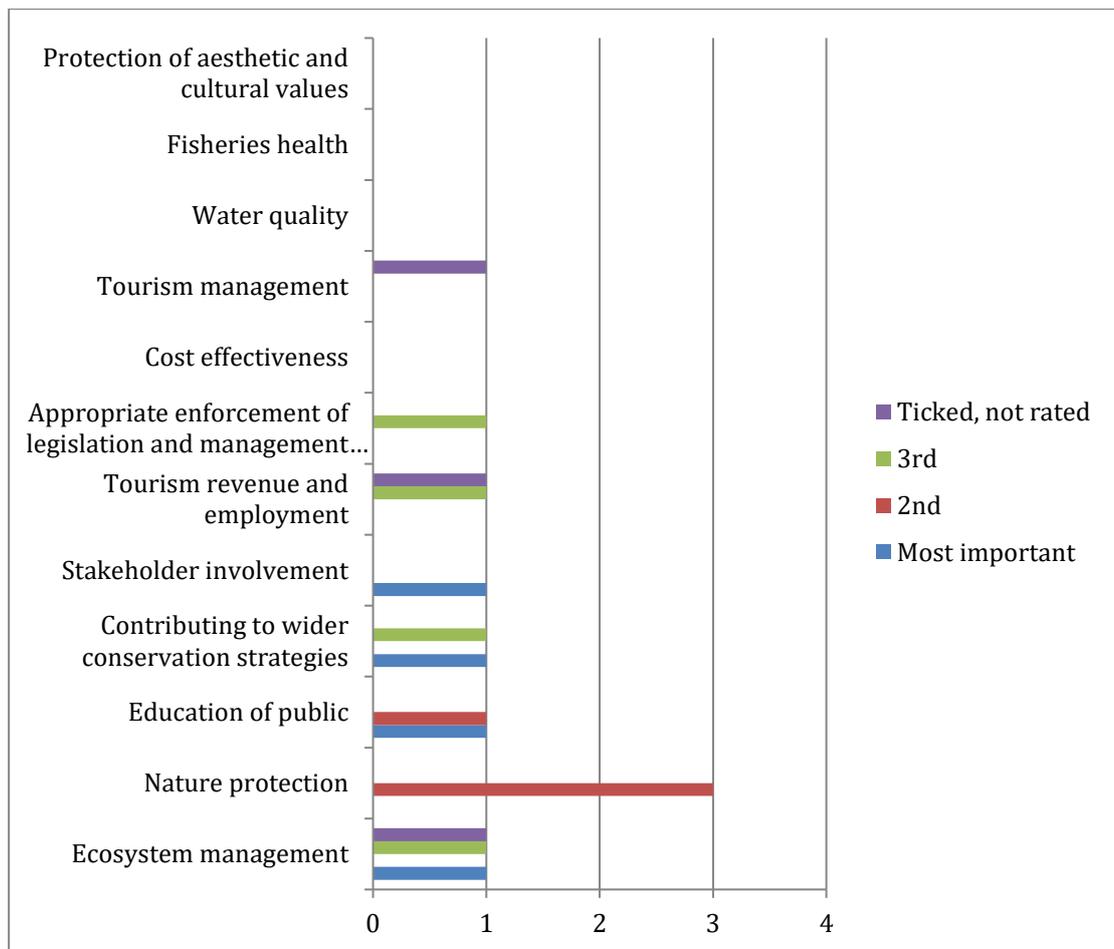
Figure 6.20 Responses to question 5: The three most important management criteria on Rum (n=5)

When asked about how well the respondents felt their own opinions were taken into account in the area management (question 7), two people gave 2, one 3 and two 4. Three people mentioned the ability to have meetings and discuss with the SNH staff, while one participant felt that consultation was "fairly poor". One person noted that the government pressure to save money also affects any management efforts. Answers to question 8 are illustrated in Table 6.1.

	Before decisions take place	After decisions take place
Informed of management decisions	3	4
Informed of opinions given by other stakeholders	4	2
Asked to respond surveys about area management	4	1
Asked to give opinions about possible management decisions in writing	3	2
Option to participate in workshops and/or discussion groups	4	1
Provide resources for the park in return for material compensation	3	2
Other:	- personal communication with SNH team members, letters to community members of decisions	

Table 6.1 Answers to question 8: The ways to affect management decisions

Only one respondent answered to question 9 about other ways they wished they could use to affect decision-making, hoping for more accessible consultation, and less complicated and clearer (in terms of language) information and methods of feedback.

When asked about whose opinions are taken most into account (question 10), two respondents mentioned SNH, one mentioned large businesses, and one "whoever talks the loudest". One respondent noted that the people who have lived on the island longest tend to be listened to more because of their experience of living in a remote location, "but everyone's opinion is taken into consideration." One person did not respond to the question.

Answering to question 11 about the results of stakeholder participation or lack thereof, one person noted that lot of residents are not interested in the nature reserve. One emphasised the importance of keeping people informed, one noted that participation should not be confused with implementing individual views, as "some ideas of residents will be in direct opposition to nature conservation." One person was concerned about an unbalanced level of input and consequent "unrepresentative reflection of views and opinions", and one person did not respond.

When asked about the most effective way to affect the area management (question), one person suggested complaining to the management, one participation in general, one noticing, reporting and supporting, one educating themselves, communicating with others and ensuring participation in all consultation opportunities, and one staying involved with both SNH and the community trust, to understand the needs of both the environment and the residents. No-one expressed additional opinions about the management of the area (question 13).

6.1.8. Comparison of Survey Sites

6.1.8.1. Wildness

It is perhaps unsurprising that Rum receives slightly higher average wildness value than St. Abb's Head (4.14 vs. 3.77). The presence of people is more obvious in St. Abb's Head, with the village and farmland, and the landscape is somewhat easier to navigate. The reasons given for wildness or lack thereof were largely the same in both locations: As can be expected, signs of human habitation were seen as negative to varying degrees, presence of wildlife and aesthetic landscape were positive. In both locations it was noted that although humans are there, it is good that there are not that many of them.

For the features listed in question 5, the ranking is slightly different in the two research areas. In St. Abb's Head, the top five consists of 'happy', 'stimulated', 'tranquil', 'attractive', and 'connected', whereas on Rum the list is 'wild', 'quiet', 'remote', 'stimulated' and 'attractive'. The most popular term of St. Abb's Head, 'happy', holds the eighth place on Rum's list, and the most popular one on Rum, 'wild', correspondingly the eighth place on St. Abb's Head's list. Neither location reserved any votes for 'unstimulated', 'developed', 'noisy', or 'boring'.

For question 6, the three features with the most positive average effect in both places were wild animals both on land and at the sea, and hikers. With other features there was more dispersion, although litter was unpopular in both locations, earning the last place on Rum and second to last in St. Abb's Head. In the comments for question 6, similar opinions were raised in both locations. Old buildings that are "in character" with the environment were considered not distracting. Hiking trails were considered helpful for navigation, although in both locations some respondents considered them unnecessary for their own purposes. Animals both on land and in the sea were considered extremely positive,

although not always in sight. Litter was generally considered negative, but both places were considered rather clean. Cars were also too few in number to really bother the commenters, and several people noted that sometimes they are a necessity. Boats were suggested in both locations to add to the tranquillity of the sea. Pets and people on foot, bikes, or kayaks, as well as divers, were welcome as long as everyone is friendly, respectful towards the environment, and cleans up after themselves.

Of the "other aspects" mentioned in question 7, weather was by far the most common. It is tempting to assume that this is due to good weather making it easier to enjoy outdoors in general, rather than one kind of weather being "wilder" than another, but the comments do not give any indication one way or another. Scenery was also mentioned in both locations, whereas midges were mentioned often in Rum but not once in St. Abb's Head. This is understandable, as they are a lot more common in the former.

As for the differences between marine and terrestrial wildness (question 8), the relative inaccessibility of marine wilderness was mentioned in both locations. Wildness on land was also considered to be safer, more predictable, and more accessible. Some respondents also considered it impossible to assess wildness at sea from the shore. Different plantlife and animal life were mentioned multiple times in both locations. While one respondent on Rum mentioned the visibility of coastal towns, buoys, rigs etc. on the sea, the sea was also considered by many to not have so many human impacts. At sea "things can't fall into disrepair", unlike land wildness it is not "controlled by man", and underwater is "quieter" and "untouched & looks perfect". On question 9 about what the marine/coastal wilderness can offer, the variety of wildlife was again popular, as were different scenery and different activities, and to question 10 about the future of marine/coastal wildness areas,

management and preservation/protection were popular choices in both locations. Allowing and encouraging access for tourists was also considered important.

Regarding the first research question, it seems that the respondents have a somewhat more "realistic" idea of the Scottish wilderness than the newspapers. It appears that the visitors of these two locations do not expect a complete lack of human presence in the wildness. While the more unwelcome aspects of that presence, such as litter, are not appreciated, the visitors are fairly tolerant towards seeing other humans and infrastructure, provided that they are not outright disturbing (humans by being rude or destructive, buildings by being "too new" to blend into the environment). Interestingly, human presence on the sea is not considered particularly disturbing. Boats are considered acceptable as long as they, like the houses, are not too new (and presumably too fast and/or loud). Even marine litter received an appreciating comment from one respondent.

The consideration of the marine environment as strange and foreign is a commonly addressed issue in marine ecology and conservation, as unfamiliarity with the marine biosphere leads to lack of concern. In both study locations, the sea was considered somewhat more alien, inaccessible, and scary than the terrestrial environment, yet the smaller human influence is appreciated. However, there seems to be clear awareness of the need for protection in the coastal and marine environment among the respondents. Many respondents also considered that keeping the areas accessible to visitors is equally important to conservation.

The small sample sizes unfortunately do not allow for a comparison of how the respondents' background, such as level of education or newspaper preferences, relate to their answers.

6.1.8.2. Participation

So how do these stakeholders feel about their opportunities to participate in decision making? With such a small number of respondents to the participation questionnaire (n=7), only tentative conclusions can be drawn. This is especially difficult for question 5 about the most important management criteria (Figure 6.21), as some respondents interpreted it differently than others (not grading their choices, or grading all options). Nevertheless, *ecosystem management* received the most first grades with three (and one unnumbered), while *nature protection* received five second places. *Cost effectiveness* and *protection of aesthetic and cultural values* were not considered particularly important, as they were only graded by the person who graded all the options, and who ranked them the third and lowest on the scale of importance.
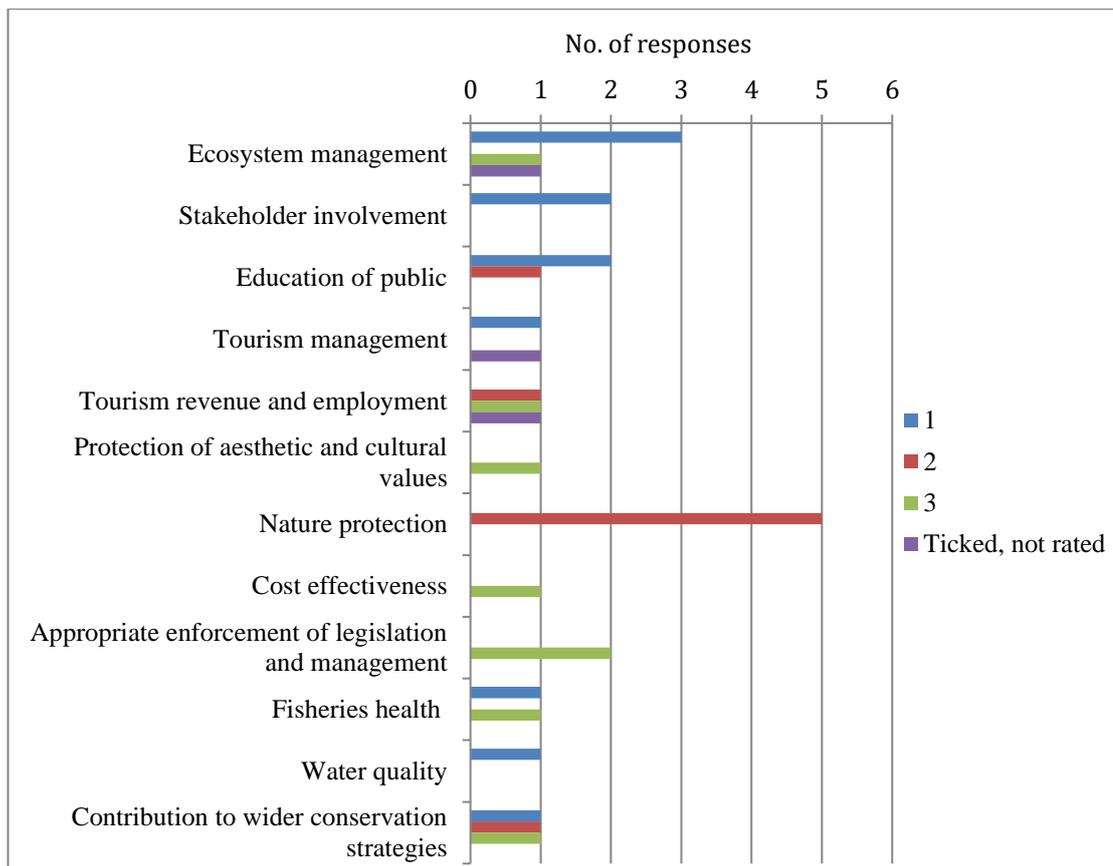
Figure 6.21 Responses to question 5: What are the three most important criteria in relation to the management of this area (St Abb's Head and the Isle of Rum)? Grade from 1 to 3 (n=7)

Most respondents considered participation to be very important to them personally but multiple respondents blamed "other people" for not being interested (suggested reasons varied from young age to excessive alcohol consumption). There was more variety in comments on how well the respondents feel that they are being heard. This is at least partially reflected by the fact that some respondents had a more authoritative role in the management of the area. The reasons the respondents gave for importance of participation were largely the same as those often discussed regarding protected area management in the developing countries: People feel they need to be involved when it is their home and livelihood in question.

	Before decisions take place	After decisions take place

Informed of management decisions	5	4
Informed of opinions given by other stakeholders	6	2
Asked to respond surveys about area management	6	1
Asked to give opinions about possible management decisions in writing	4	2
Option to participate in workshops and/or discussion groups	6	1
Provide resources for the park in return for material compensation	3	2
Other:	- personal communication with SNH team members, letters to community members of decisions - taking part in local meetings	

Table 6.2 Responses to question 8 about available participation options on both St Abb's and Rum

Unsurprisingly, those mentioned most often as the ones being heard were the large groups and institutions, such as the village council of St. Abbs, SNH and the bigger businesses. As can be seen from Table 6.2, the respondents considered that there was more interest in their participation before decisions took place than after. When asked about the results of participation or lack thereof, some respondents expressed concern of unbalanced views.

The best way to affect management was generally considered to be active, and to try to be in direct contact with the people responsible.

It would appear that the respondents in the study locations have rather reasonable expectations of the management process and their own roles in it, and those who participated seemed to have a good relationship with the authorities responsible. However, there is a risk that the responses come from the more content residents. One questionnaire was handed to a resident who noted that his responses "would not be favourable", but unfortunately his was one of the questionnaires that were never returned to the researcher. Adding to the fact that the St Abbs VMR board could not be interviewed at all due to interpersonal conflicts, it must be assumed that the more dissatisfied voices are not heard in this sample.

6.2. Online survey

The online survey was conducted after the discourse analysis. Its main purpose was to offer the wilderness typology (see chapter 5.5.1.) to the stakeholders, and test how well it matched their views. The surveys were designed in July 2015. Surveys were designed for visitors (annex 7), tourism operators (annex 5), conservationists (annex 5), policy makers (annex 5), divers (annex 6), and fishers (annex 4), using the SurveyMonkey questionnaire tool. The surveys were distributed by contacting various relevant organisations and some individuals. The organisations chose their own ways to forward the surveys; some utilised Facebook, whereas one tourism organisation printed small cards to hand to their customers. One fishers' representative chose not to participate, citing the dissatisfactory Scottish MPA survey and its detrimental consequences to the individual and the industry, while another could not fill the survey in on their computer, and referred to the troubleshooting attempted by the researcher as "waste of my time". In the end, six

responses were received from visitors, two from tourism industry, one from conservationists, 13 from policy makers, nine from divers, and eight from fishers. The respondents were asked about their professional and/or personal relationship with the Scottish marine areas and opinions on Scottish marine management, and they were also asked to rank the wilderness level of 13 pictures on a 5-point Likert scale.

6.2.1. Professionals

Those working in tourism industry, conservation, policy, and fishing were analysed as one group (n=24), as they all had a primarily professional relationship with the sea. Of the tables below, fishers (n=8) are in some cases presented as their own group, as some of the identification questions presented to them were slightly different than those of the other groups, and fishers often are seen as in the opposition, in particular to conservationists.
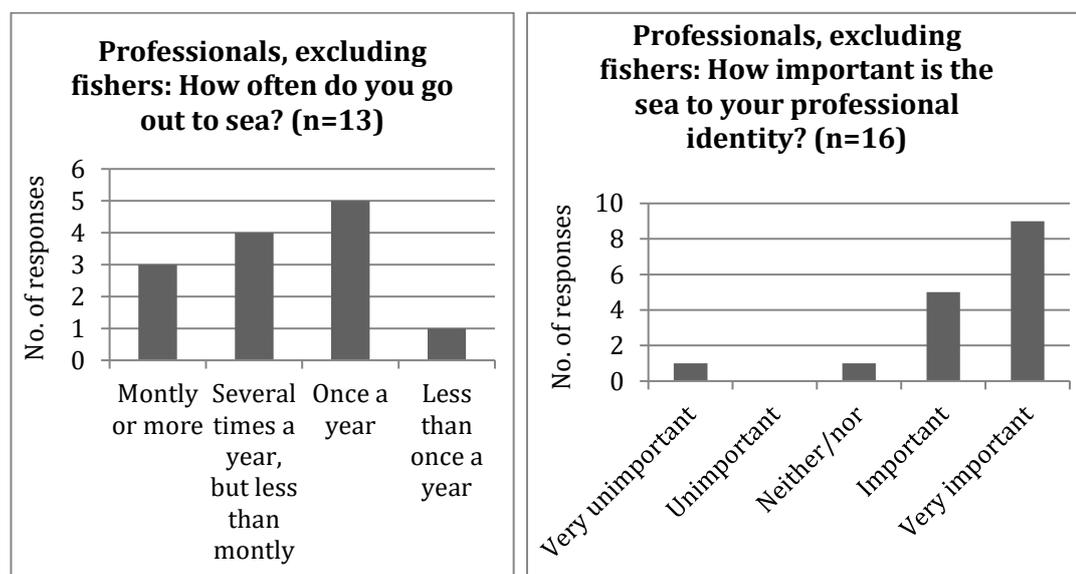

Figure 6.22 Professionals (excluding fishers) respondent data
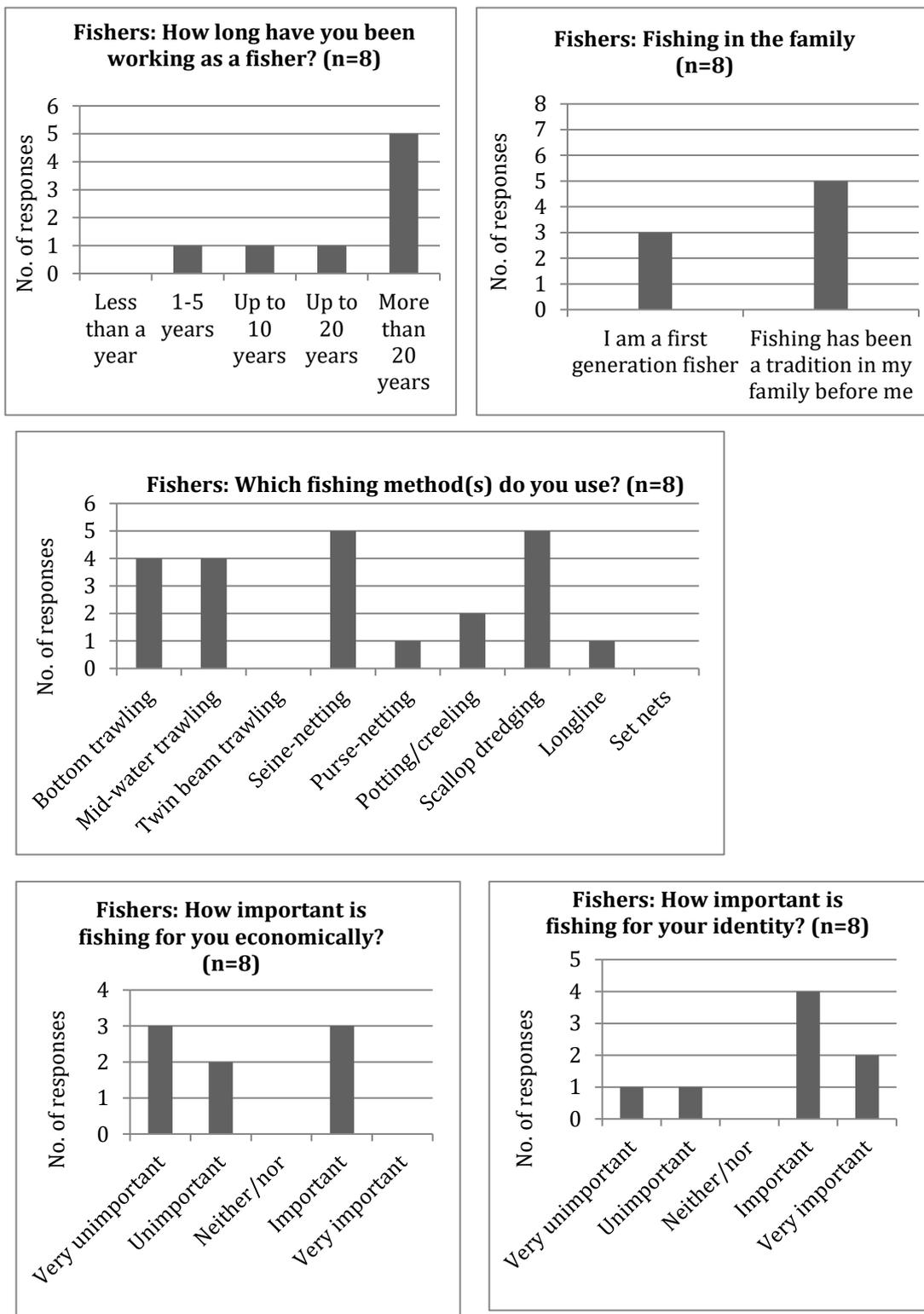
Figure 6.23 Fishers respondent data

Almost all of the respondents reported some level of personal relationship with the sea (Figure 6.22). Interestingly, the surveyed fishers on average rated fishing as more important to their identity than to their economic situation (Figure 6.23). When asked

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about the main motivation for work (question not presented to the fishers), responses were fairly varied, with some citing their desire to make a difference:

"Interest in protecting the environment, doing something worthwhile, making a difference to the environment, being involved in interesting scientific work."

"It became too hard to find a permanent position in the field of deep sea science. What keeps me going is the hope that my work can make a difference."

"Working out how to manage the unmanageable for the common good - Scottish marine policy is incredibly complex and politically interesting."

Others emphasised the pleasure retrieved from spending time in the marine environment:

"I do like to be beside the   "Spending time in the sea and

seaside..........."   nature conservation."

Whereas some reasons were more personal in nature:

"I like WORMS"   "Paying bills."

6.2.1.1. Professionals' opinions on marine management

The respondents were asked about their feelings regarding marine areas management. Opinions were fairly divided, with fishers considering the current management "over egged" and "ridiculous", and most others considering it insufficient. Fishers noted that the current marine policies are "too many [and] MPAs etc. are overkill", and that "[p]olicy and government pay no attention". One policy maker was of the opposite opinion, noting that

s/he was "[n]ot aware of much management actually going on, other than fishing - which is more using the sea than managing it". One tourism operator agreed:

"[The current level of marine areas management is] very poor. Amongst decision-makers, there is little understanding of the complex issues in marine areas and even less concern for the entire range of people, activities and wildlife."

– Tourism operator

The reasons given for insufficient or otherwise unsatisfactory management ranged from abovementioned lack of understanding and/or attention to financial reasons; either lack of funds or prioritising financial gains over environmental status, as expressed by a policy maker who noted that "[t]here is not enough management going on for protection of the marine environment. Most is in relation to gaining financial benefit from the marine environment". Another also criticised the effectiveness of the management:

"Management is a toothless dog: no money to actually really put measures into place and to police the measures that have been put into place. It is nice to have to offshore MPAs - but they are nothing but a nice name and area on a map since there are no resources (or very little) to govern them properly. At the end of the day decisions are made in the 'higher up' departments of the political hierarchy (Ministry of Trade or Foreign Ministry) to make sure the government doesn't give away any economic advantage it might see in an area recommended to turn into an MPA. Also the EU legislation and requirements (MSFD, HD, WD, BD) are near impossible to fulfil thoroughly as long as money is not put forward by the governments. Too much effort and resources are wasted on developing strategies which sound great on paper but can hardly be realised in their full potential."

– Policy maker

Some respondents were slightly more hopeful, particularly regarding Scotland:

"Improving but training and resources need within government and science bodies to improve data collection in order to take better informed management measures."
– Conservationist

"I feel that in Scotland, management is relatively successful although more work needs to be done to understand ecological processes. On a global scale, I feel that the marine environment is not managed well." – Policy maker

When asked about concerns regarding current management, the responses reflected the thoughts describe above. Respondents considered that sufficient action is not taken, and decisions are based on the wrong priorities. A conservationist listed "[i]nadequate monitoring, control, compliance and enforcement". A policy maker expressed a similar sentiment:

"A lack of enforcement and a lack of communication across political boundaries. Political motivations drive the movement of marine policy rather than science and understanding." – Policy maker

Neglecting the environmental problems, both marine specific and universal, was considered a serious issue:

"There is not enough concern for preventing problems in the future: for example, we won't limit anything such as fishing quotas, dredging, etc. until the evidence is overwhelming… There is not enough understanding of, or acceptance of, the fact that we cannot look at things in isolation… With 1/2 degree warming, one species of copepod (a small marine crustacean) has moved further north. It just happens to be the favourite food of cod larvae. So imposing stricter fishing quotas isn't going to do

anything for the starving cod larvae, is it? They'll all die before they're big enough to be caught."

– Tourism operator

"Over emphasis on socio-economic factors at the expense of environmental protection. There is a lack of understanding about the inter-connectedness of the ecosystem and that in the long term, over-exploitation of the marine environment will have catastrophic consequences" – Policy maker

It was also noted that problematic management has negative impact on the staff. One policy maker noted that with politicians trying "to get away with the absolute minimum they can get away with", frustration levels among staff will rise, and "the turn-over of staff which is very high anyhow due to the poor pay levels of civil servants will be even higher".

Responses to question about who should be involved in decision-making again reflected the fishers – others divide:

"Fishermen." – Fisher

"Ministers ultimately."
– Policy maker

"Fishermen and a few government administrators with access to scientific advice."
– Fisher

"Scientists, stakeholders, the general public, policy makers."
– Policy maker

Even when not openly antagonistic, the respondents indicated awareness of the tensions between the fishing industry and other actors, such as the policy maker who stated that "[t]he

voices of all stakeholders using the sea should be involved, but those who gain their livelihoods from the sea should not be given a greater say because of this". The sentiment was echoed by a conservationist, who noted that best available science should be the basis of decisions, but stakeholders should also be consulted, including "wider communities of interest (e.g. conservation groups, wildlife tourism operators) as well as industry groups and geographical communities".

There were some disagreements regarding what the government's role should be. One policy maker noted that while all stakeholders should be involved, "[the] decision needs to be taken by a strong leader, i.e. the government, with the long-term interests of future generations in mind". A tourism operator was somewhat more cautious regarding the government's position:

> "Obviously government needs to be involved, but more note should be taken of the knowledge and understanding of professionals in marine biology, as well as ALL the stakeholders who have an interest (business or otherwise) in the marine environment. This obviously includes the fishing industry, but with more and more interest in, and concern for, the marine environment, marine tourism is increasingly important."
>
> – Tourism operator

6.2.2. Divers and visitors' opinions on marine management

The divers and the visitors were analysed as one group (n=15), as their relationship with the sea had a strong recreational element, although it does not exclude a professional one. In fact, while all divers said they dive for leisure, three also said they dive for professional purposes. Four of the eight divers said they dive several times a month and four several times a year. Of the six visitors, one said that this was their first visit to the sea for leisure

purposes, while two respondents said they visit several times a year, two once a year, and one less than once a year.

On the current level of management, opinions were divided. While four of the 14 respondents said they were unsure or had no opinion, four had mainly negative and three mainly positive opinions.

> "Many areas are in serious danger - from warming of the seas, acidification, melting of the ice pack, trash, contamination, over-fishing… Marine areas may have some local control, but unfortunately the oceans are interconnected and what happens in one area or species affects others."

> "Very poor - slightly better in Scotland than the rest of the UK, but still a long way to go. I feel that the public are misled about the marine protection in the UK… The fact that trawling and dredging in these areas is permitted shows that the government has no respect for the protection of the marine environment."

> "I don't really know a lot about it other than some information from Marine Conservation Society and Seasearch. I know that Marine Reserves like St Abbs are in much better condition than non-protected area and I believe add to the sustainability and productivity of the sea."

As for who should be involved in decision-making, the recreational users were almost unanimously in favour of responsibility shared between those involved. One responded suggested "[a]ll those with a vested interest", while another suggested "[p]eople that know the seas and oceans, not businessmen". The respondent group's specialisation was note by one respondent, who suggested: "[f]ishery, [g]overnment, Marine Reserves, [c]harities specialising in sea and environment, [as well as] people who use

the see and dive organisations because we see a very different view to most people". In this group, the role of the government was also discussed:

"This is an important function of government; control of large-scale activity so as to limit its effects. The capacity for commercial shipping to do damage is tremendous, and with this come certain responsibilities the understanding of which deepens the more it is discussed, and the more diverse the discussion is. Representation is necessary from the economic sector, public health, the companies themselves, any communities affected, and people who have a deep relationship with the area in question. In this instance a poet will have more effect than a scientist."

Another respondent questioned whether "there is any answer to this question - management of local regions varies greatly and all areas are on an interconnected web".

Regarding the respondents' greatest concerns about the current situation, litter and plastics were mentioned as a major problem, as well as the fact that it is "[i]nsufficient to protect marine habitats and encourag[e] dive tourism". Trawling and dredging were again criticised, as "there is overwhelming proof that these are incredibly destructive, yet they are allowed in the areas we are supposedly 'protecting'". Permitting these practices was accused of not only being unscientific, but also giving the public "a false impression that these fishing methods are benign".

On Facebook I often see people arguing against marine protection denying that fishing is damaging to the marine environment (my favourite recently being a woman claiming that lack of fish in the Clyde has nothing to do with fishing but the 'overabundance of protected sharks'. Another saying that if we stop trawling and dredging, the seafloor will become overgrown and nothing will be able to live in it)."

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"My concern is that the competing priorities of different areas, and countries make it impossible for any agreement on policies. As we experience a growing global population with the inability to meet the basic needs of all peoples, the wilderness areas, both land and sea, will lose out."

6.2.3. Wilderness typology

Based on the wilderness typography developed after the discourse analysis (see Chapter 5.5.1.), the respondents were presented with nine words and asked how strongly they disagreed or agreed with them when at sea (the words were preceded by "I feel / I am / it is" where appropriate). These results are displayed in Figures 6.24 and 6.25. From the recreational users, the most clearly positive ones, 'happy', 'well', and 'beautiful', received no negative choices, while 'lost' and 'messy' received no positive choices and 'danger' received only one 'agree' choice. The professionals' views were somewhat more evenly distributed, although the positive attributes still received higher scores.
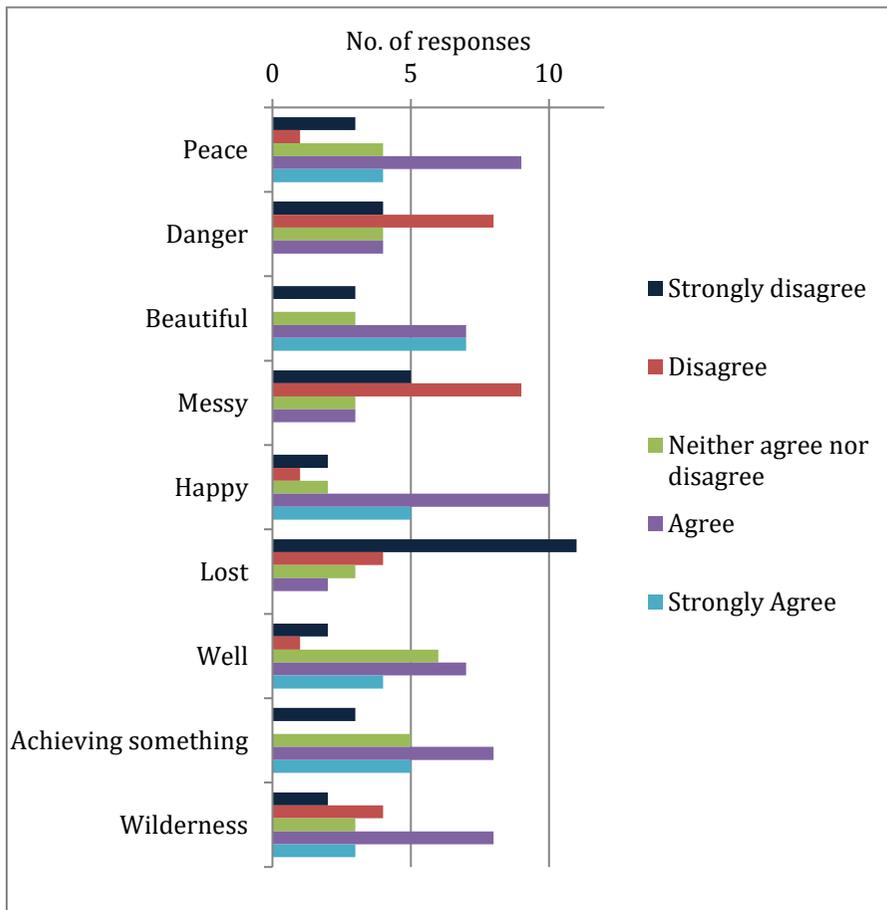
Figure 6.24 Professionals, including fishers: When at sea, how strongly do you agree or disagree with the following (I am/I feel)? (n=21)
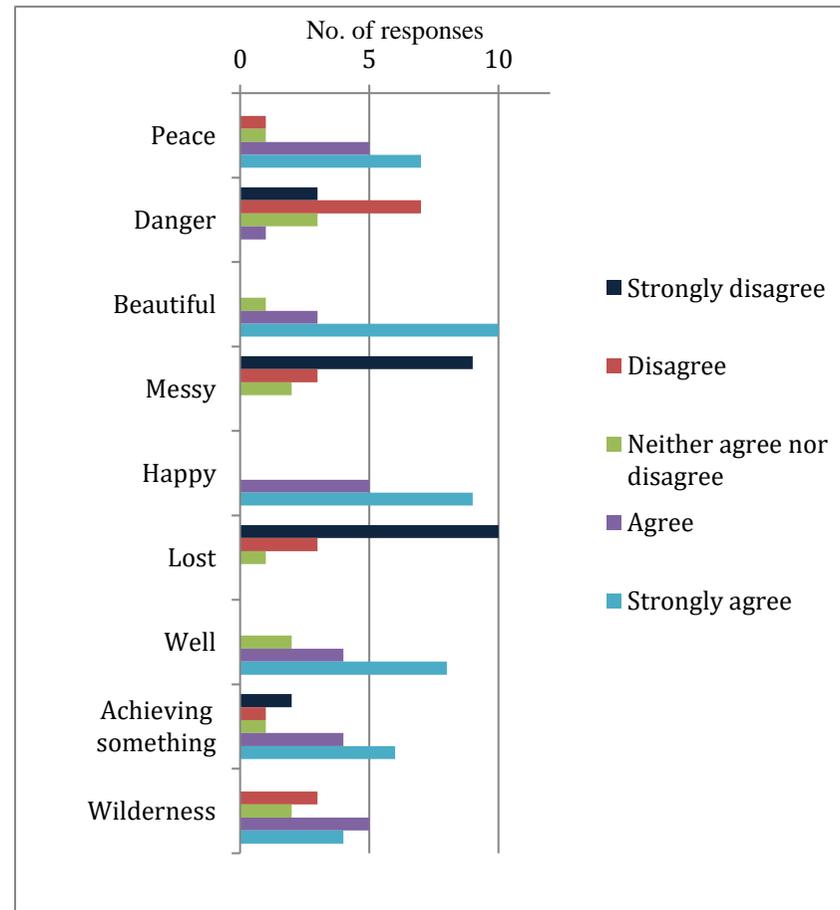

Figure 6.25 Recreational users: When at sea, how strongly do you agree or disagree with the following (I am/I feel)? (n=14)

To calculate mean scores, the answer options were converted to values ranging from +2 (strongly agree) to -2 (strongly disagree). Looking at the means (Figure 6.26), the difference between the positive and the negative associations becomes more obvious, as the positive terms *beautiful, happy, achieving, well,* and *peace* all fall on the positive scale, while the negative ones *danger, messy,* and *lost* receive clearly negative scores. *Wilderness,* which can be seen as either negative or positive, receives the lowest positive score from both groups. The mean scores given by the recreational users are also clearly higher for the positives and lower for the negatives than the scores given by the professional users.
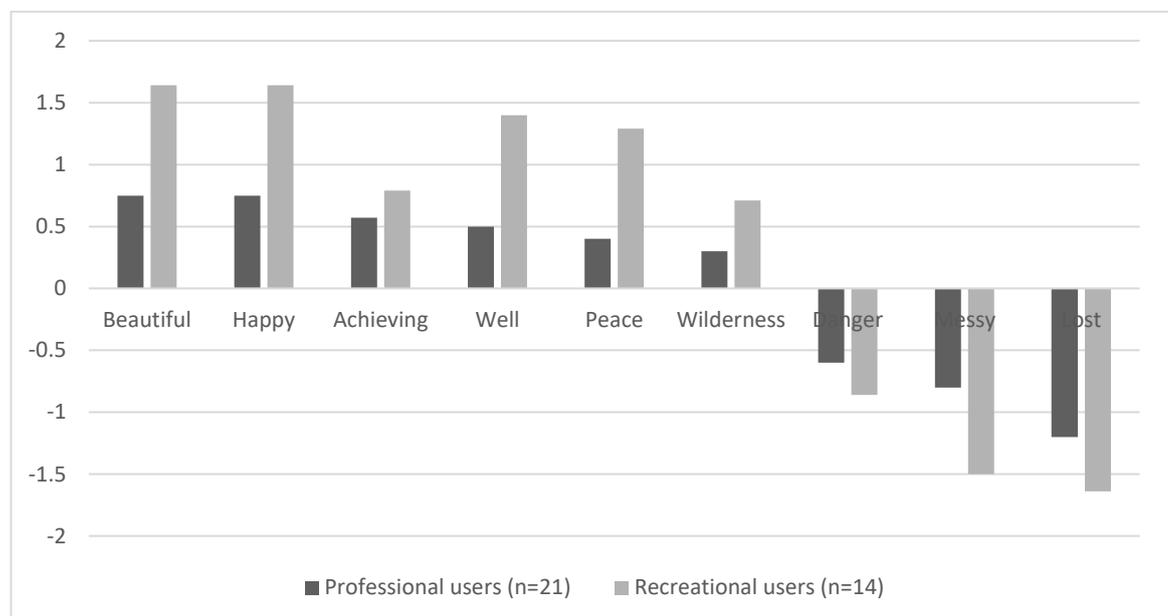
Figure 6.26 Typology mean scores

6.2.3.1. Network analysis

A network analysis was conducted on the data, to examine the relationships between the typology and the respondents more closely. In Figure 6.27, each connection between two terms is labelled with every respondent who gave either +1 (agree) or +2 (strongly agree) to both concepts. Each respondent has a three-character code in the format of letter-number-letter, and the codes have been colour-coded according to the group the

respondent belongs to. For example, respondents *o1m* (other professional) and *f4x* (fisher) gave a positive score to both *beautiful* and *messy*.

As the positive terms received the most positive votes, they are the hubs of the network, connecting to each other through all five respondent groups. The strength of the connection is directly related to the mean score, with *lost* having the weakest connection, then *messy*, then *danger*.

Notably, most fishers either did not respond to this question, or only gave negative responses (all respondents who did not answer the question at all have been removed from the graphs). Consequently, respondents *f4x* and *f6x* are the sole representatives of the fishers' opinions on this graph. They are also in the majority in the connections for the concepts *messy* and *lost*. The third clearly negative term, *danger*, has slightly broader support. The visitors appear somewhat seldom in connection with *wilderness*, which may be an indicator of the rather controlled atmosphere on a cruise ship. Similarly, only half of the visitors appear in connection with *achieving,* which is in turn very popular among divers. Divers themselves are particularly opposed to the idea of feeling in *danger*, despite the fact that they could be seen as being more at the mercy of the environment than the other groups, whose visits most likely take place on boats and ships.

Figure 6.28 depicts the negative -1 (disagree) and -2 (strongly disagree) responses. Here the strongest connections are naturally between the generally rejected negative terms *messy*, *lost*, and *danger*. Again, only two fishers feature on the graph. The connections between the positive terms are created primarily by fishermen and policymakers – particularly *f3x, p8x, p10m,* and *p13x* – apart from *achieving*, which is connected also by some recreational users and one 'other professionals' group member.

Figure 6.29 illustrates the number of positive connections from each respondent. Thin lines indicate a +1 connection (agree) and bold lines +2 (strongly agree). The numbers indicate the number of connections from each vertex. The average number of positive connections is 2.7 for fishers, 4.3 for policy makers, 4.7 for visitors, 5.4 for divers, 5.7 for other professionals, and 4.4 total. One fisher has connections (agree) to all nine concepts, while three fishers and one policy maker have no connections.

Figure 6.30 illustrates the number of negative connections from each respondent. The average number of connections is 2.2 for fishers, 2.3 for other professionals, 2.6 for divers, 3.5 for visitors, 3.6 for policy makers, and 3.0 total. Two respondents, one policy maker and one fisher, have strong connections (strongly disagree) to all nine concepts, while three fishers and one diver have no connections. One fisher has no connections on either of the two graphs, as they gave 0 (neither agree nor disagree) to all concepts.
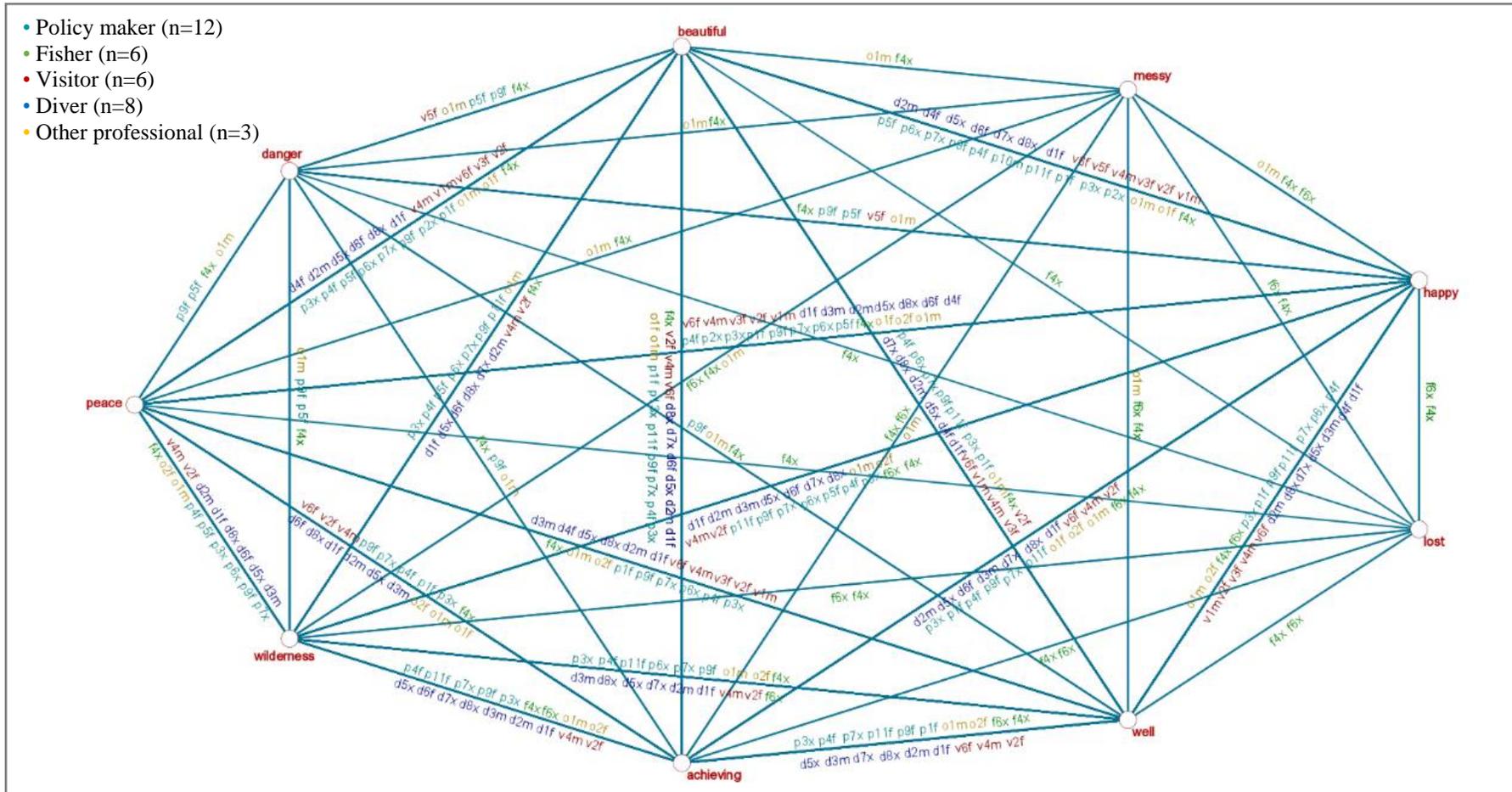
**Figure 6.27** Positive connections
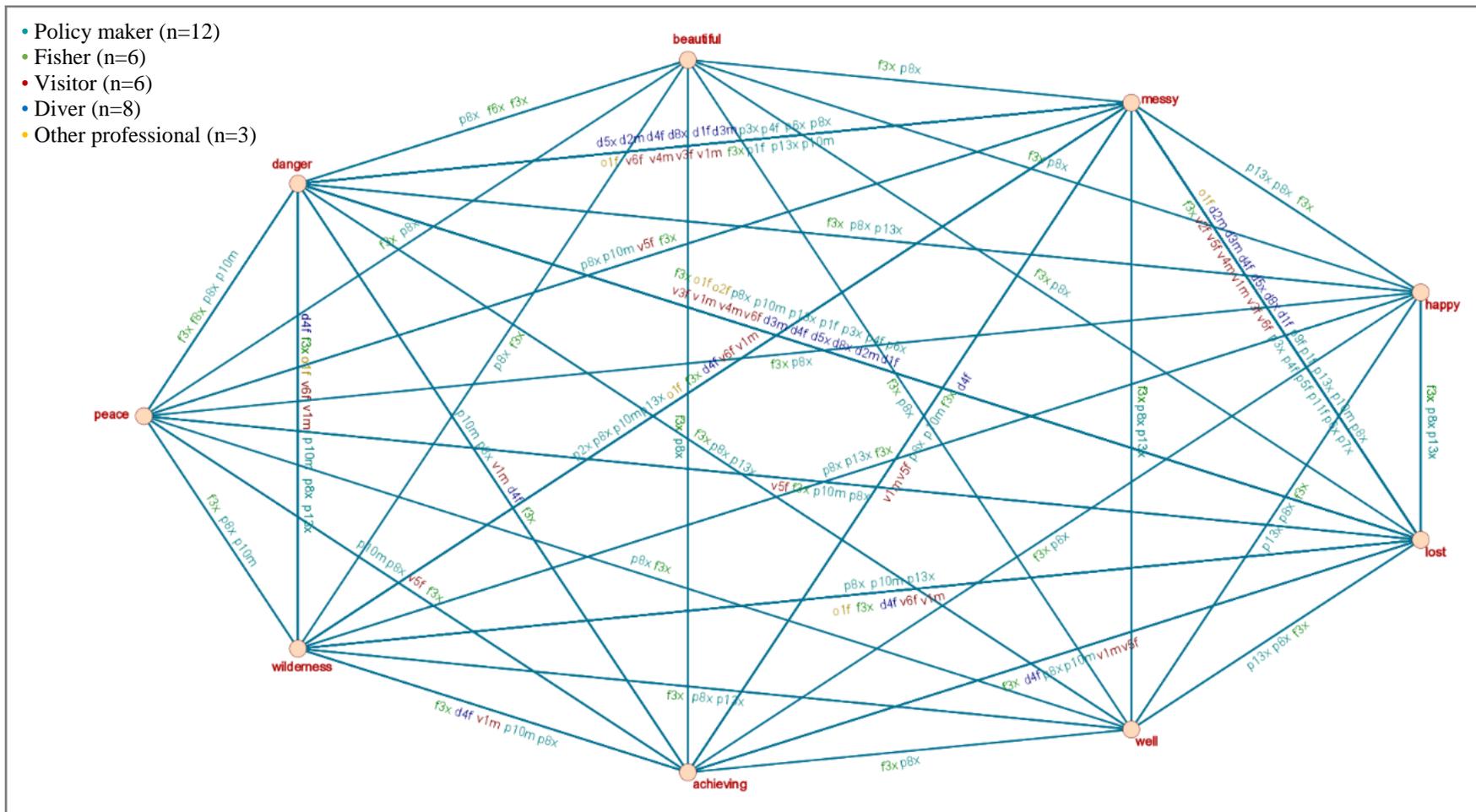
Figure 6.28 Negative connections
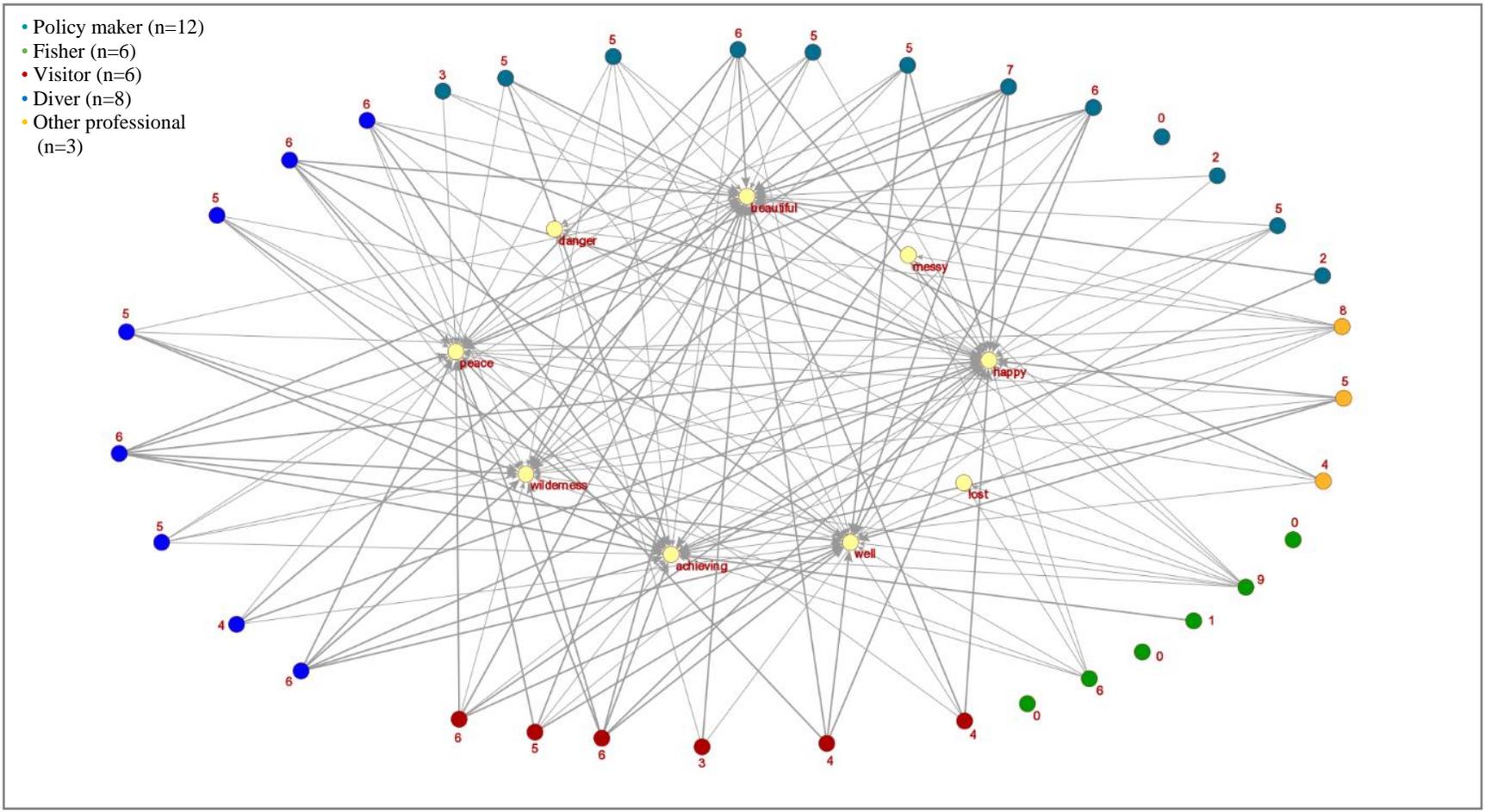
**Figure 6.29** Positive opinions on terms
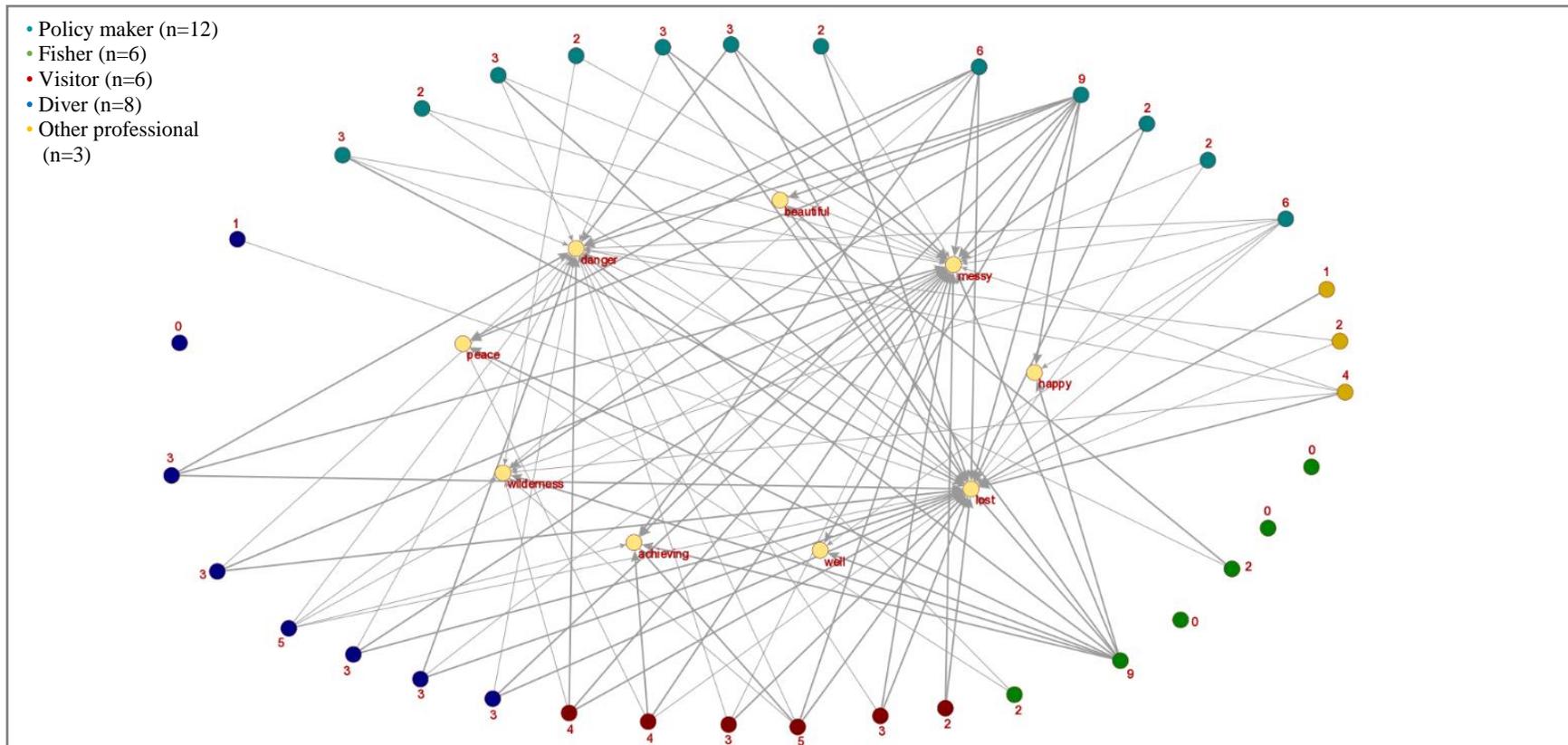
Figure 2.30 Negative opinions on terms

While there is a lot of variance even within such a small sample, it does seem that the negative experiences often associated with *wilderness* are not experienced by many of the visitors to the Scottish seas. Particularly interesting is the difference between divers and fishers, both of whom have somewhat unique perspective on the sea. Fishers, whose work is often both risky and physical, have the most negative opinions, while divers, whose relationship with the sea has a strong recreational component, feel happy and safe despite having no protection of a ship. It is also possible that the tense political atmosphere has a negative influence on fishers' opinions. It should also be noted that fishers had the lowest response rate to the question, and the sample size is not large enough to generalise.

6.2.3.1. Wilderness in pictures

The respondents were presented with 13 pictures, representing different features that may or may not be present in the wilderness, and asked to select on 5-point Likert scale how strongly they agreed or disagreed that the word "wilderness" described each picture. The pictures were selected using Google Image Search for pictures available for reuse or non-commercial reuse. Responses and reactions are presented below. Only one of the fishers responded to all the picture questions, while one fisher answered to the first three and one only to the first one. Two of the recreational users' group also did not answer the picture questions. The comments came mainly from the same respondents, majority of whom were policy makers, so they may not represent the general opinion of all respondents.

Figure 6.31 Temperate rainforest, picture by Robin Dawes at https://www.flickr.com/photos/saomik/6762 920219
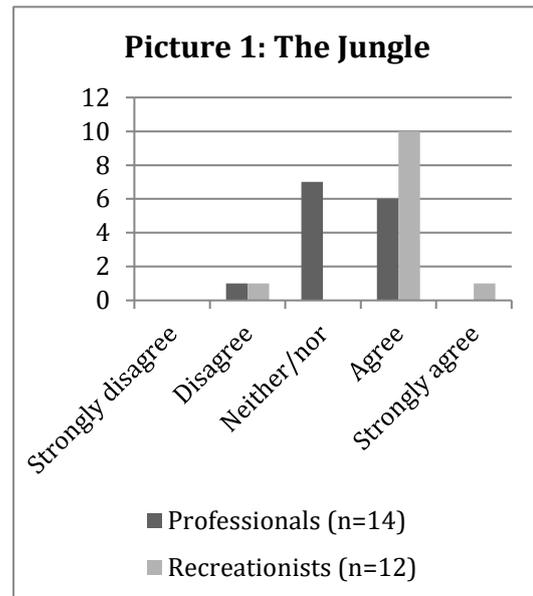
The first picture, Figure 6.31, was of temperate rainforest with no visible human influence. It was intended as an obvious example of terrestrial wilderness, but the respondents, particularly the professionals, were not quite so easily led:

"It is pretty difficult to know if this is actually a wilderness or not. It could just be a patch of woodland in the midst of an agricultural area, for example. I don't think there is enough information in the image to say if it is actually a wilderness."
– Policy maker

"Not sure if some management is taking place/did take place as ground flora not that diverse, but fallen and large trees are a good sign that this is an old-growth woodland and thus relatively wild." – Policy maker

"It looks like it may have been slightly disturbed, but the effects were long past. Really, we can't be sure without a context. By my definition, wilderness is an area relatively untouched by humans, but that is not the same as an ecology, or even the same as nature." – Visitor

"There is not enough information in the picture. I've no idea of the extent of the forest, for example, or whether it is native species." – Policy maker

Figure 6.32 Loch Leven, by Alan Hughes)
[CC BY 2.0
(http://creativecommons.org/licenses/by/2.0)],
via Wikimedia Commons
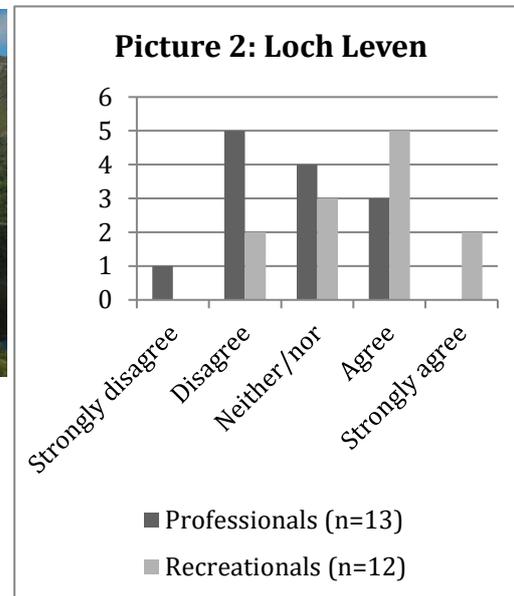
The picture of Loch Leven, Figure 6.32, was chosen to represent a typical Scottish terrestrial landscape. As can be expected, it was on average judged to be a lot less wild than the previous picture. The professional users gave it the lowest score of all, while the recreational users ranked it in the middle (see table 6.42. Average wilderness scores.)

"I don't think this area is a wilderness as I feel that there are signs of human activity here. I think some of this area must be grazed, probably by sheep (which are not wild) for it to look the way it does." – Policy maker

"Only some native woodland on the lower hills; I expect still a lot (too much) grazing going on by deer and/or sheep, who have no natural predators in Scotland. It is a lovely place but not really 'wild'." – Policy maker

"It's a landscape - clearly influenced by humans since the original forests have been cut down long time ago." – Policy maker

Figure 6.33 Antarctica, Picture by Shawn at https://shawnwashere.wordpress.com/2010/02/13/this-is-antarctica-the-greatest-place-i-have-ever-been-day-494
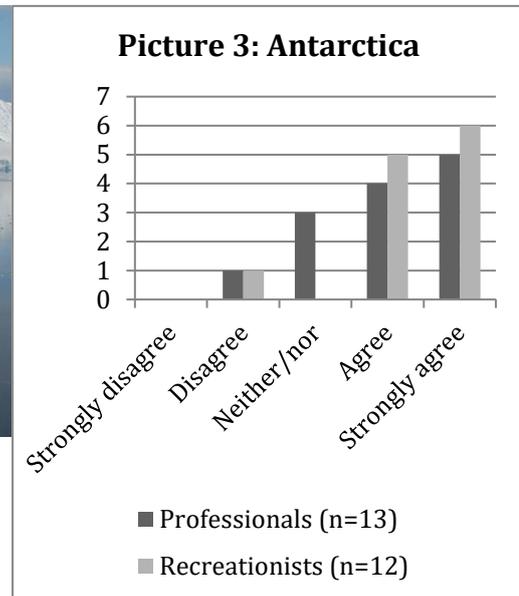
As was evident from the discourse analysis, the polar areas are often considered to be one of the few wilderness areas, if not the only wilderness areas, left on planet Earth. Among the respondents, the picture from Antarctica (Figure 6.33) received the highest wilderness score, and it was the only one for which the "Strongly agree" option was the most popular one among the recreational users.

"I suppose one of the aspects that I (and I suspect many others) attribute to real 'wilderness' is the lack of people. In the previous two pictures, there was a real likelihood of people living or walking in or very near the area. Here, there's probably no people for miles...or so we hope." – Tourism operator

"I feel this captures the idea of wilderness much better, because this type of environment mainly exists where human populations are not large. I'm not saying that there are no parts of the world where this image could have been taken next to a human settlement,

However, I think the likelihood of it being a wilderness is higher than the image of the woodland, for example" – Policy maker

"Again, hard to judge. Wilderness is more than a picture without signs of human influence (which we cannot get away with on this planet). If this is the Arctic or Antarctica then yes: it is wilderness - but we don't know what is underneath the snow. You could be a few miles outside of ski resort looking at a glacier lake - hardly a wilderness then." – Policy maker

Figure 6.34 Calm sea surface. Photographer unknown, source

http://www1.american.edu/ted/ice/divine-wind.htm

Picture 4: Calm sea surface

- Professionals (n=12)
- Recreationists (n=12)

Figure 6.35 Stormy sea surface. Picture by Daniel Illuminati at

http://www.panoramio.com/user/3982191/tags/Piedras

Picture 5: Stormy sea surface

- Professionals (n=12)
- Recreationals (n=12)
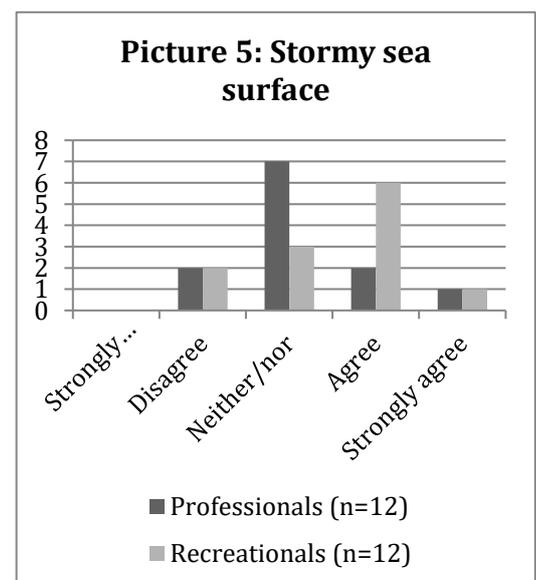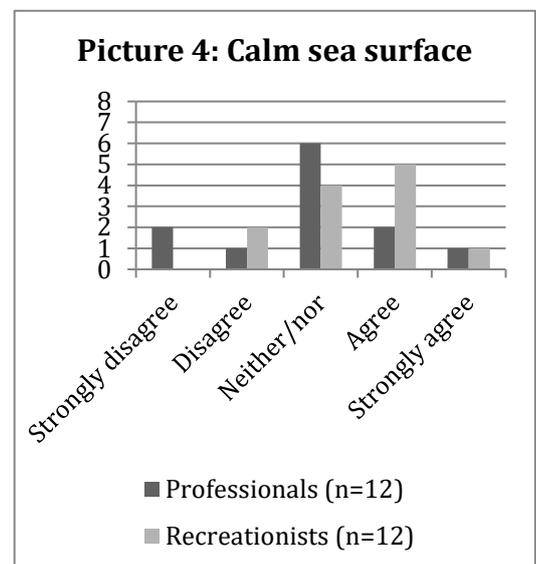
Pictures 4 (Figure 6.34) and 5 (Figure 6.35) were selected to see whether the roughness of the sea had any effect on the wilderness perceptions. As was seen in the discourse analysis, danger and discomfort are often quoted features of wilderness, and stormy sea can be considered to have significantly more of both to offer than calm sea. However, the difference was minor, and many respondents did not consider the state of the sea surface to be enough information to judge the wilderness of the environment.

On picture 4:

"This depends on the state of the seabed - if human activities have impacted the seabed then it is not wilderness. If there is a pristine coral reef in a remote area of the Philippines then yes it would be wilderness. This is a bit like taking a picture of the sky and asking if the word "wilderness" describes the image." – Policy maker

"Depends where it is - and whether it has cables, pipes, renewables out of sight and on the seabed, or whether it's in the middle of shipping lanes and fishing grounds" – Conservationist

"Whitecaps indicate a landfall; probably taken from a populated beach, but sure"
– Visitor

"I know that it's a wilderness but, sadly, I probably wouldn't use the term to describe it. 'Wilderness' has such a positive, romantic aspect to it. Most people would probably say 'desolate'. It's all about what someone would like to SEE. Most people won't be interested in the water, forgetting what's beneath the waves. But that's because -- in the past -- it has been so difficult to see the rich wildlife under the surface." – Tourism operator

On picture 5:

> "I would say the same as the last image. There is no reason why this is more of a wilderness than the previous image of the ocean. This one just represents the ocean, but in a more stormy state." – Policy maker

> "More movement makes it 'wilder' than a calm sea, even without knowing what's going on below the surface/state of the ecology in that area." – Policy maker

> "Could be waves at the beach in Aberdeen - so hardly a wilderness area"
> – Policy maker

Figure 6.36 Coastline, Picture by Jon Maiden at http://picsant.com/291662900-scarborough-yorkshire-coast.html
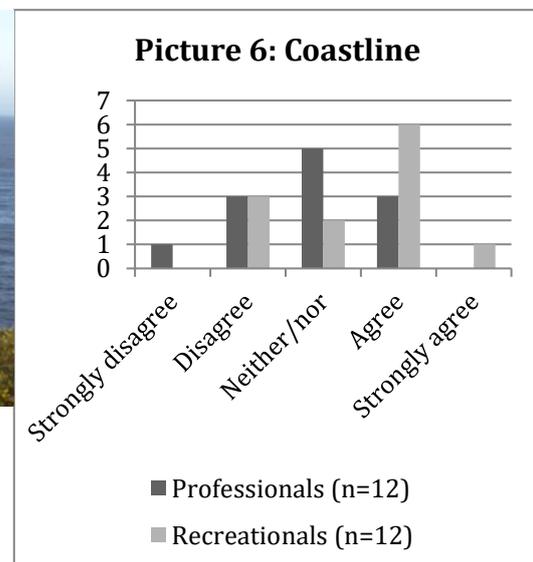
Picture 6 (Figure 6.36) introduced a visible coastline, and the wilderness score was not particularly flattering, particularly from the professionals. Many respondents noted that the human influence on the coast is obvious.

> "With intensive agriculture running right to the edge of the cliff this is hardly wilderness." – Policy maker

"There is no evidence of human occupation in the picture - but there could be a town just to the left." – Diver

"I don't think this is a wilderness either - I think it is because I consider the word wilderness to mean somewhere with very little human influence. I think an area like this is likely to be affected by human fishing activity and by leisure and agricultural activity." – Policy maker

"Cliffs look like seabirds nesting on them - this is a good sign that it's 'natural' and wild, though the tops of the cliffs look heavily grazed and/or a gold [sic] course, i.e. not wild at all." – Policy maker

Figure 6.37 School of fish. Picture by David Mark at http://all-free-download.com
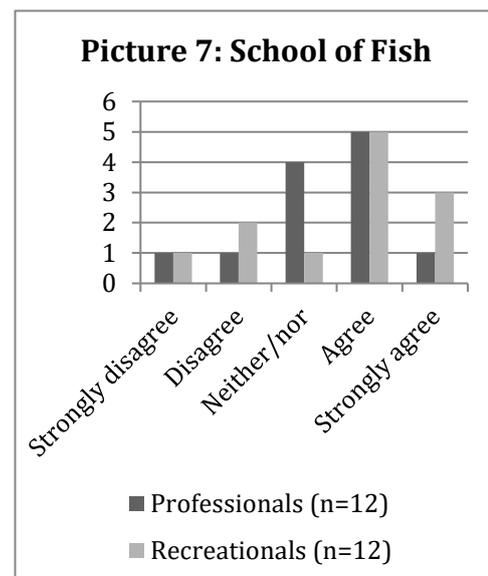
The seventh picture (Figure 6.37) featured a school of fish, to test reactions to the presence of non-charismatic fauna. However, by some respondents, the animals in the picture were interpreted to be sharks.

"I would agree slightly more that this is a wilderness due to the megafauna in this image. They would not be present if there was massive human fishing activity. It is more revealing than the image of the sea surface." – Policy maker

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"For there to be an aggregation of sharks like this it suggests that the environment in this area may be less impacted by human activity and therefore be closer to a 'wilderness'." – Policy maker

"This could be taken in an aquarium, or in the open ocean. Water is clear and there is a variety of species shown." – Visitor

"Agree even though it's a calm image. Wild can mean ferocious and agitated OR untouched by humans; it depends on the definition." – Policy maker

"If large predators, then perhaps a 'least altered, most natural' area."

– Conservationist

Figure 6.38 Manta Ray and diver, by Steve Dunleavy from Lake Tahoe, NV, United States (Nick and Isabelle, Kona Hawaii) [CC BY 2.0 (http://creativecommons.org/licenses/by/2.0)], via Wikimedia Commons
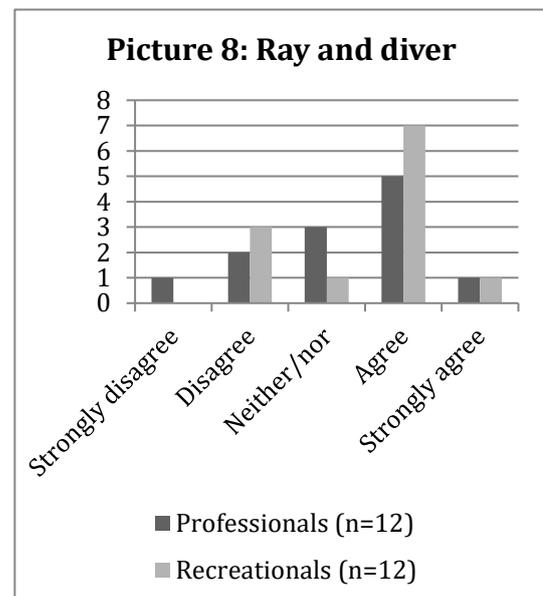
The next picture (Figure 6.38) features a diver and a ray, combining human presence with what could be seen as a charismatic species. Reviews were mixed, but "agree" was the most popular choice for both respondent groups.

"It's got a human being in it which makes it perhaps less wild, but then the ray doesn't look disturbed by the human, retaining the 'naturalness' and therefore wildness of the image." – Policy maker

"Sea floor has some corals, not sure if they are viable. The diver is not altering or interfering with the environment." – Visitor

"This could be a wilderness, but again it could be the very opposite"

– Policy maker

Figure 6.39 Bleached coral, by Acropora at English Wikipedia [CC BY-SA 3.0 (http://creativecommons.org/licenses/by-sa/3.0)], via Wikimedia Commons
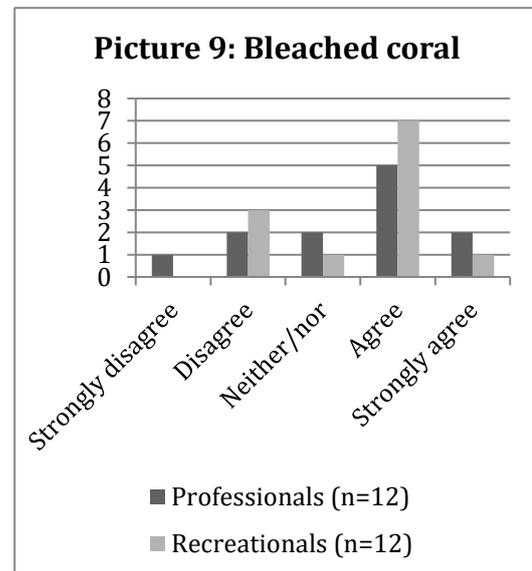
The next picture (Figure 6.39) features bleached coral, with a few individual fish. Interpretation of the picture would depend on whether the respondent knew what bleached coral looks like, as opposed to healthy coral. "Agree" was the most popular choice in both groups.

"This looks like a coral reef of some kind with a lot of live coral and some dead coral. I would think that maybe it could be described as a wilderness, but again could not be certain." – Policy maker

"It looks natural though I'm not a coral expert; it's calm though so it's not wild in that sense. It would feel pretty natural and 'out there' though when actually diving there, I think." – Policy maker

"Some of the corals appear dead, several fish are present but they look to be the same species." – Visitor

"[Agree,] but unhealthy coral." – Diver

Figure 6.40 Leaping whale, Picture by Ralf Beck at https://pixabay.com/en/humpback-whale-wal-ocean-sea-407201/
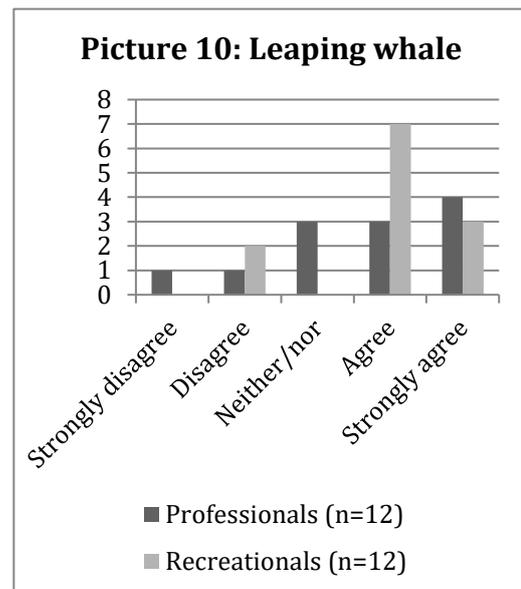
Picture 10 (Figure 6.40) featured a definitely charismatic animal, a whale, leaping out of the ocean, with no human influence visible. Opinions were somewhat divided. Aside from Antarctica, this was the only picture for which "Strongly Agree" was the most popular choice by the professionals.

"Choppy waves and a wild big mammal – yes, very wild" – Policy maker

"Again, can't tell what is under the surface or outside of the picture." – Visitor

This looks like it may be a large whale species - I once saw an Orca in the harbour of a major town, so the presence of a large whale alone is not enough to make something a wilderness." – Policy maker

"[Agree,] but with the caveat of what technology is on the sea bed, and how many whale watching boats are out of the picture." – Conservationist
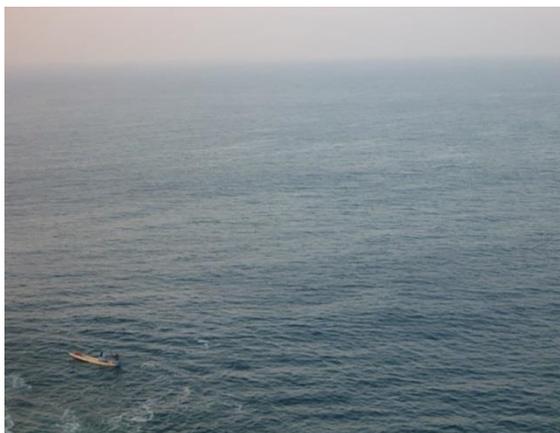
Figure 6.41 Traditional boat, Picture by Admin at http://www.pdpics.com/photo/949-small-boat-fisherman-ocean/
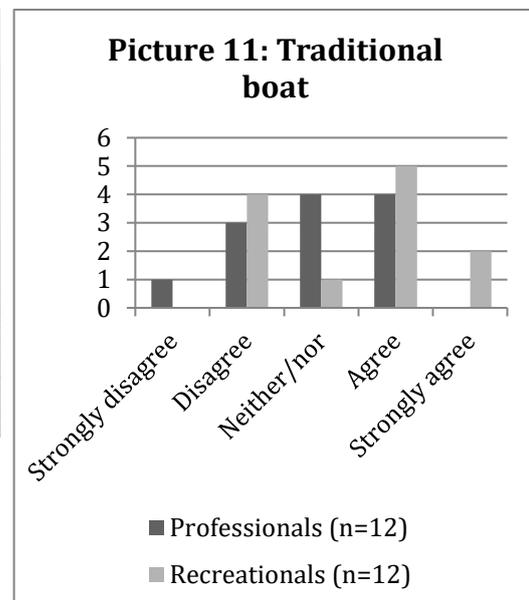
Picture 11 (Figure 6.41) has a traditional looking fishing boat as a small item in the corner, with most of the picture showing empty ocean. The opinions were quite evenly distributed.

The boat looks a bit lost at sea.. No development other than the boat, so in a way the loneliness of the boat makes it feel even wilder (though the sea is calm)."

– Policy maker

Huh! Put some people in the picture and (unless it's underwater, where it's different!) it

suddenly becomes less of a wilderness, doesn't it?"

– Tourism operator

Looks like a large space of open sea with a small boat or surfboard. Hard to judge." –

Visitor

Figure 6.42 Modern boat, by unknown at
https://www.pexels.com/photo/sea-sky-ocean-
boat-727/
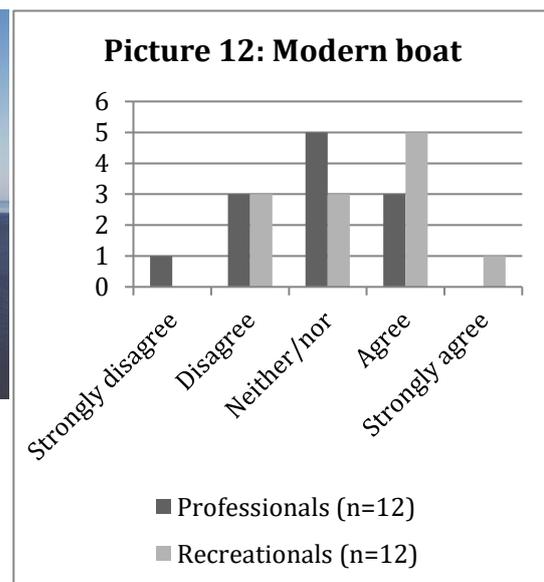
Picture 12 (Figure 6.42) also features a boat as a small detail in large area of water, but in

this time, the boat is noticeably modern. It receives slightly more negative score than the

previous picture. Yet the recreational users in particular were willing to accept the picture

as wilderness.

"Leisure cruiser looks very unnatural and manmade, it looks comfortable and at home in

a calm sea, not threatened at all. If it were a fishing boat, closer to nature, it might have

looked a tad wilder." - Policy maker

Figure 6.43 Rescue operation, Picture by Defence Images at https://www.flickr.com/photos/defenceimages/8675799486
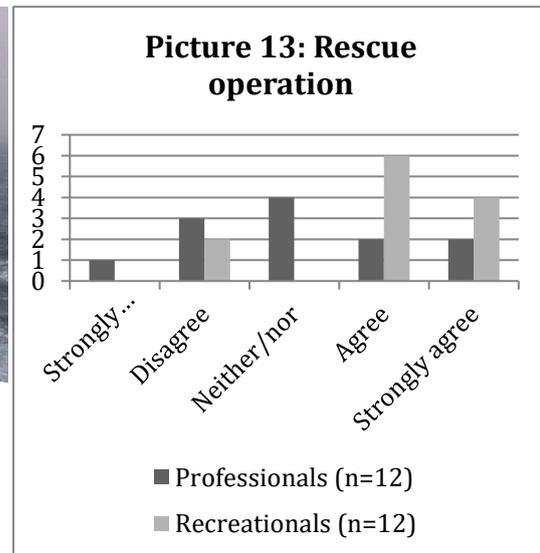
The last picture (Figure 6.43) was chosen to emphasize the danger of marine wilderness. The boat and the helicopter are the major targets of focus in the image, but it is evident that the boat is at the mercy of the elements. From the recreational users, the picture received the second highest overall score. Opinions among the professionals weren't entirely unanimous.

"Yes - humans battling against the forces of nature. A few gannets/birds in picture help."

– Policy maker

"Single ship in need of rescue - they will be glad to get out of this wilderness!" – Visitor

"Do we sometimes forget the 'wild' in wilderness? I know I do."

– Tourism operator

"Unlikely to be a wilderness if its near helicopter range and being fished."

 – Policy maker
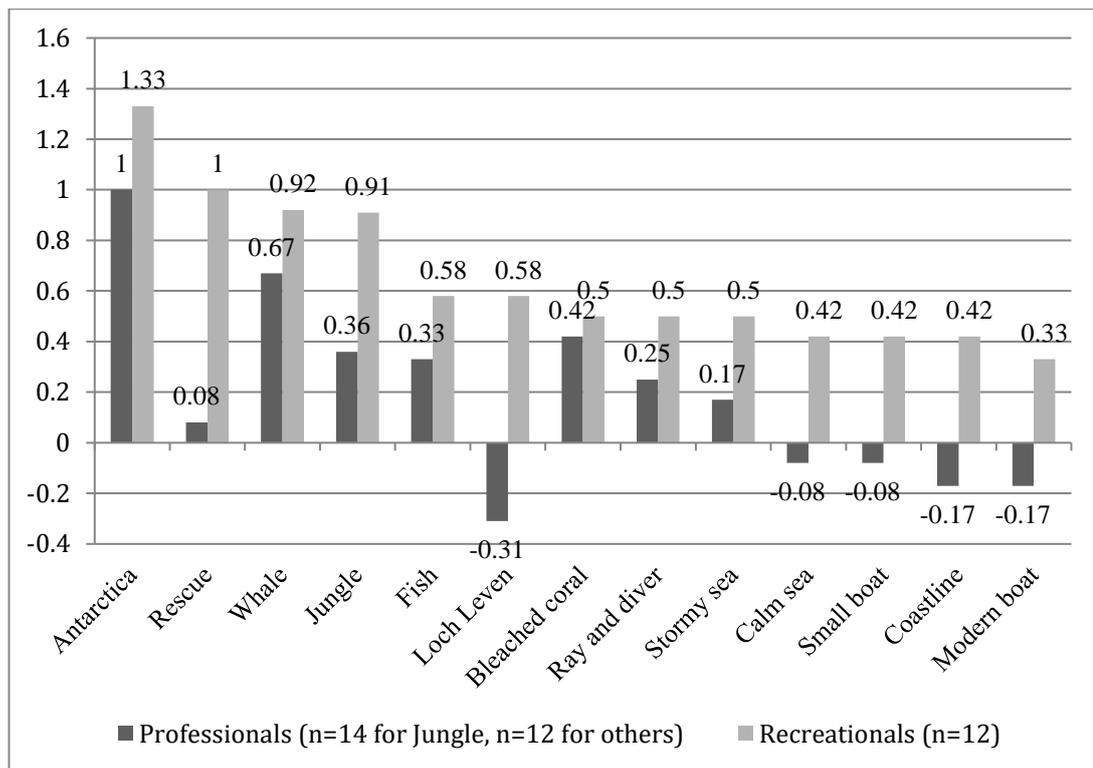
Figure 6.44 Wilderness means

For the calculation of the wilderness means, 'strongly disagree' was given the value of -2, 'disagree' the value of 1, 'neither agree nor disagree' the value of 0, 'agree' the value of 1, and 'strongly agree' the value of 2. The results are illustrated in figure 6.44).

As could be predicted based on the discourse analysis, Antarctica was deemed particularly wild, receiving the highest score from both groups. Another picture considered clearly wild by both groups was the picture with a leaping whale. Recreational users gave all pictures positive scores, while professional users gave negative scores for five pictures. Of those five pictures, two had clear human presence (pictures of boats), and two had signs of human presence in the landscape (coastline and Loch). The picture of a school of fish, as well as the picture with a diver and a ray received positive scores from both groups, although lower than the picture of the whale. The picture of a rescue operation, with both a boat and a helicopter, received the second highest score from the recreational users, but

only a just positive score from the professional users. The picture of the bleached coral falls in the middle of the list for both groups. Of the two terrestrial photos used for comparison, both groups gave the picture of the temperate rain forest the fourth highest score, while the picture from Loch Leven received the lowest score of all from the professionals, and the fifth highest from the recreational users.

6.2.4. Conclusions

The online survey provided the final dataset for the research questions. As for the wilderness definitions, it seems that those with knowledge of the ocean are fairly critical of what they are willing to accept as wilderness. Rough waves are less likely to satisfy those who know what might be hidden beneath them. The recreational users' views are somewhat more positive, perhaps at least partially due to the expectation of feeling positive about something one does for recreation. As was suggested by the exploratory study, presence of animals, particularly of the charismatic kind, is good for the wilderness experience, whereas the presence, even implied, of people is less so.

Regarding the typology, danger, being lost (*dangerous wilderness*), and messiness (*messy wilderness*) were not something that these respondents particularly associated with their visits to the sea. Wilderness itself was only just accepted (*experienced wilderness*), while beautiful, happy, well and peace (*healing wilderness*) understandably ranked higher among the recreational users than the professionals. While the recreational users gave higher scores to the positive aspects and lower to the negative aspects than the professionals, the opinions of the two groups were the closest for achieving (*working/useless wilderness*). This might be due to the fact that achieving is something not always associated with recreation.

Comments on management and participation reflect the often-recognized fact that marine areas conservation is heavily polarized between fishers and other groups. While the fishers feel that the marine areas are overprotected – and in some cases that fishers should be the main stakeholders (or one of the main stakeholders) in making management decisions – the other groups feel that marine areas are underprotected and management responsibilities should be shared equally among wider range of stakeholders. This significant difference in perspectives needs to be taken into account in stakeholder cooperation, as they indicate that different groups perceive different things as problems and solutions. This may lead to some groups feeling that their participation is not taken into account, if their perceptions are not addressed or taken into account by the management or other stakeholder groups. These findings will be discussed further in the next Chapter.

PART THREE: CONCLUSIONS

7. DISCUSSION

7.1. Introduction

This thesis has examined the concept of *wilderness* and its use in Scotland and the European Union, with an emphasis on the marine environment. This chapter details and discusses the findings, with subsections 7.2. to 7.4. attempting to answer the research questions set out in Chapter 1, subsection 7.5. presenting the overall conclusions, and subection 7.6. presenting the recommendations based on the findings.

7.2. How is the concept of wilderness defined, understood and used in the Scottish and EU marine policy?

As discussed in the literature review, the question of wilderness is born from and nourished by a large number of philosophical issues. The perceptions of wilderness have changed as the relationship humans have with their environment has changed. Wilderness has changed from a threat to be defeated to something precious and necessary to be protected, as technological advancements and urbanisation has practically neutralised most of the threats and eventually caused most of the wilderness areas to disappear. This relationship is further complicated when people living in more urbanised areas clash with people living and working in close contact with wild and possibly dangerous areas, about the management and conservation of those areas.

Defending wilderness definitions becomes harder to justify when more and more conservationists are questioning the nature/culture dichotomy. Stories of untouched wilderness, set aside for a white westerner to go out and prove his toughness and bravery, sound attractive to those concerned about the disappearing nature. Yet, as discussed in the Literature review, such areas have often come with the price of natives dislocated from

wilderness areas, or their livelihoods taken away (Hendee, Stankey and Lucas, 1990; Pimbert and Pretty, 1995; Cronon, 1996b; Elliott *et al.*, 2001; Wakild, 2014). However, when the global environmental damage caused by humans becomes more and more severe, and more and more obvious, it is tempting to go to extremes in an attempt to protect what is left. For many, the idea seems to be that wilderness designated area is better protected against the spread of development than a natural area without wilderness designation. Allowing abandoned areas to rewild is also an increasingly discussed choice, seen as a way to provide relief to both nature and humans, but still opposed by those who feel threatened by wilderness.

7.2.1. The different wildernesses

Both the literature reviewed and the research conducted for this study strongly imply that *wilderness* means different things to different people, in different situations and different countries. So is there a way it can be put into practical use? Through the discourse analyses and interviews seven different non-metaphorical wildernesses (see Chapter 5.5.1.), *dangerous*, *useless*, *messy*, *working*, *experienced*, *healing*, and *untouched*, were discovered. They can all be used to describe the same area (although *messy* is generally used in a different context), the difference comes from the impact those areas have on people. Therefore, even if these different interpretations do not cause confusion over which areas are considered as wilderness, it should be expected that people's attitudes about them vary significantly. Some wilderness perceptions do, however, allow for more flexibility in terms of visible human impact than others, and while this does not necessarily lead to confusion, it may lead to fundamental disagreements over management decisions.

It has been argued that wilderness has in fact never been a purely ecological definition. The Wilderness Act never directly suggested that the "untrammelled" areas should be

"virgin". Indigenous inhabitants were removed from the first American Wilderness Parks (Hendee, Stankey and Lucas, 1990; Cronon, 1996b). The European landscape has been changed and modified since the arrival of the first humans. The Amazonian rainforest has been inhabited by advanced civilisations, and is still home to many indigenous populations. Despite all this the wilderness movement is persisting, and as discussed in Chapter 2.2.2. the health benefits of the wilderness experience are utilised and supported. Thus, the common solution has become to designate the *wildest* areas, and call them either *wilderness, wild land* (as done in Scotland)*,* or as a broader term, *wild landscape* (used by McMorran, Price and Warren, 2008).

7.2.2. Wilderness in Scottish and European law

As discussed in Chapter 5.2., the Scottish legislators and policy makers in particular seem to prefer to use *wilderness* as an adjective rather than a noun. The concrete and intangible benefits of *wildness* are acknowledged, and there is political will to preserve them and make them accessible to the public. Yet, as SNH notes, the Scottish nature does not quite compare with 'say, the Arctic wastes' (Scottish Natural Heritage, 2003). However, it is agreed that conserving the more untouched areas of nature is good for the environment, and the wilderness experience seems to have beneficial effects to people, and areas are defined as *wild* (*land*) or *wildness*. Many of the studies, including Habron (1998), agree that wildness is still a definable concept in Scotland and a 'resource in its own right' (Habron 1998, p.55), and it seems to be a patriotic issue to many of those writing in the analysed newspapers.

As discussed in chapter 5.4, The EU documents mention Nordic coniferous forest belt, the Danube region, Soto de Aguilar, and Antarctica as examples of "real" (and often "the last") wilderness (Committee of the Regions 1999; SEC(2010) 1489 final; Case T-303/01;

European Parliament 1987). This supports the idea that wilderness is something much more significant in size than anything found in the more fragmented areas of Western Europe. The visitor surveys conducted for this research suggest that while Scottish coasts and seas may offer peace, wellness, and happiness, their wilderness character is ambivalent even to the visitors.

What, then, does the EU legislation actually say about wilderness – or environment without significant human impact – and how does that relate to the Scottish perceptions or the general idea of wilderness areas? The Habitats Directive's 'terrestrial or aquatic areas distinguished by geographic, abiotic and biotic features, whether entirely natural or semi-natural' which should be 'maintain[ed] or restore[d], at favourable conservation status' (Council Directive 92/43/EEC) and the Marine Strategy Framework Directive's purpose to 'protect and preserve the marine environment, prevent its deterioration or, where practicable, restore marine ecosystems' with the goal of marine waters that 'provide ecologically diverse and dynamic oceans and seas which are clean, healthy and productive within their intrinsic conditions' (European Parliament and Council Directive 2008/56/EC) are not exactly at odds with the general view of wilderness. MSFD even adds 'the use of the marine environment is at a level that is sustainable, thus safeguarding the potential for uses and activities by current and future generations'. Thus, we have described a relatively wild area, to be preserved or possibly restored, but still available for human uses and activities. The *Message from Prague* encourages the wilderness/wild areas divide, without providing a particularly strict definition for either (European Union Presidency and the European Commission, 2009). And as summed up by the Commission's *Guidelines on Wilderness in Natura 2000* (2013, p.5-6), neither wilderness nor wild areas are 'explicitly mentioned in the Birds and Habitats directives, but applying a wilderness approach to the

management of Natura 2000 sites is seen as compatible with the provisions of the Directives'.

7.2.3. The views of the people and the role of the newspaper

As discussed in Chapter 3.2.3, Derrida (1992) notes that the newspaper allows turning an opinion into a public opinion. Derrida refers to this public opinion as a *citizens' assembly* called upon to decide on and judge societal issues. Valencia Sáiz, (2005), writing about environmental citizenship, refers to *citizens' juries* and *forums*, as tools of a global citizenship allowing people to participate in the management of the environment. In this research I discovered that in the newspaper debates over wilderness designations and development projects, the Scottish do their best to put this power into use. With both journalists and readers writing in having different agendas, wilderness in the papers becomes both negative and positive, useless and beneficial, empowering and terrifying. This does not necessarily mean confusion, just extremely different points of view. The impact of wilderness policies, or lack thereof, on people and the environment is often described in passionate terms. The Highland Clearances have not been forgotten, and their memory is invoked where appropriate (*The Scotsman*, 2010j, *The Herald*, 2014b; Ross, 2013a). As discovered through the newspaper analysis, if a powerful name of an individual is required, John Muir is the first port of call. Overall, it appears that the stakeholders do not have a strong trust in their ability to participate in decision making, as those writing in the papers are calling for clear legislation to dictate what happens in a given area, rather than saying: "Let's manage this together".

7.3. What are the potential policy implications?

The study discovered that the Scottish Policy and the EU law largely agree on the conservation of *wild areas*, smaller and fragmented than *wilderness*, with natural condition

possibly modified, but expressing the quality and benefits of *wildness* (Scottish Natural Heritage 2010; European Union Presidency and the European Commission 2009; and others). The term *wild land* might be easier to digest than *wilderness* for some, but as long as the argument for those areas being cultural landscapes rather than wild land exists, it is likely to be used by those who stand to lose from areas being designated as wilderness.

7.3.1. Do we still have a "trouble with wilderness"?

Based on this research, it seems that twenty years on the discussion started in *Environmental History* in 1996 by William Cronon, Samuel P. Hays, Michael P. Cohen, and Thomas R. Dunlap is still ongoing. The different understandings of wilderness by the society as a whole (as discussed by Cronon), and by activists and day-to-day environmental workers (as discussed by Hays, at least according to Cronon) still exist in the wilderness discourse. Those opposing wind farms and other development projects on the grounds of destroying wilderness seem to be aiming for an ideal, untouched land. At the same time, the memory of the Highland Clearances resonates in the newspaper articles and letters in the same manner as the stories of forcible removals of the Native Americans, even if the reasons were different. There are still concerns that the idea of sustainable human life within nature is ignored, despite the promotion of the health benefits offered by nature, and the heroic stories of those who have had their wilderness adventure. Like Cronon – and Hays – many call for accepting humans as a part of nature, in order to benefit both, and the ability to access wilderness for recreational purposes is only questioned when discussing the "ultimate" wildernesses, the Arctic and the Antarctica. The desire to allow human presence comes across from newspapers as well as fisher and resident interviews. Meanwhile, the interviewed visitors in St Abbs and Rum seem to be reasonably happy with some human presence, even if it means that at least for some the wilderness character is somewhat reduced.

Several of Cohen's categories of *wilderness* are used in different contexts. As discussed in chapter 2.2.1, the categories are:

a) *wilderness* as noun or adjective: name or quality (what it is)

b) *wilderness* as image, or icon: symbol (how it means)

c) *wilderness* as ideology (where it fits in a system of values)

d) *wilderness* as representation (how its literary or political rhetoric mediates)

e) *wilderness* and as the Law (The Wilderness Act as social convention and tool) (Cohen 1996, p.34)

The European Parliament is clearly trying to push for *wilderness* as the law (e). However, it has not quite reached that status either in Scotland or EU. In Scottish policy it is used as an adjective and an image (a, b), while both Scottish and EU policy accept it as a social convention and a tool, but does not mandate its use. As representation (d) it appears in both frameworks. In newspapers and stakeholder interviews it is everything from a) to d) with image (b) being particularly common in art and literature.

Regarding the issues of personal morals and anti-environmentalist interpretations brought up in the *Environmental History* correspondence, it is perhaps unsurprising that similar personal values still influence the discussion. Those pushing for wilderness conservation are supporting the protection of areas with "relatively unnoticeable human intrusion", even if in Scotland those areas are called *wild areas* rather than *wilderness*. Various wellbeing projects are aiming to enable those with the greatest need to experience wilderness, not just those with the most resources (the "elite"). Yet people are well aware that the entire wilderness debate does influence the image of the environmental movement, with the issue of dislocating people and taking away livelihoods. As for Hays' point about brining nature into urbanised environment, that movement is also gaining more and more momentum, but

it has become a separate issue from wilderness conservation. The confusion of wilderness-as-cultural-construction and wilderness-as-natural-feature, as discussed by Cronon in his second essay, is also still present.

It seems that most newspaper articles discussing Sottish wilderness policy, as well as the Scottish legislation, have a somewhat "Haysian" view of wilderness. Humans are not excluded, and protection is not limited to areas far away from human inhabitation. Even the reforestation projects specifically mention things such as health benefits and education as planned future uses (Ross, 2012b; Biodiversity Scotland, 2014a). The European Parliament view appears to be closer to what Cronon originally suggests the *wilderness* idea to be, namely a larger, more idealistic picture (and often in locations where wilderness areas are larger), while the term *wild area* is again used for smaller, fragmented areas that are modified.

On the whole, it seems that the wilderness discussion in Scotland and Europe has mostly moved beyond Cronon's belief that we see wilderness only as something completely outside the human sphere. Granted, in many comments from the European Parliament the large and sublime landscapes are often preferred over the smaller and plainer ones, but the Scottish policy makers, fully aware of the limitations of their own country, are willing to emphasise the importance of the more fragmented *wild areas*. The wilderness therapy projects provide access to wilderness experience also to the less privileged individuals, going against Cronon's suggestion that wilderness almost solely achievable to those with certain class privileges.

7.3.2. The wilderness values and policy

As for the other articles discussed in Chapter 2.2.1., Watson's (2004) suggestions on wilderness meaning different things to different people, and defining wilderness through defining and understanding the relationship between people and wilderness, might lead to more accurate results in Europe than trying to define it through a single set of purposes. However, the applicability of such definitions to policy is questionable. They would be useful for planning recreational and therapy use, but would be unlikely to serve as a productive conservation concept. Worster's (2014) comments in the Wilderness Act anniversary edition of *Environmental History* in turn come across as rather idealistic. Worster presents conservation as the ultimate sign of altruism, something other species are not capable of, seemingly completely ignoring the facts that mass extinction is caused by humans, and it will have serious consequences for continuous human existence. Equally, he ignores the historic economic uses of wilderness areas. His dismissal of the criticism towards the treatment of "the poor" within the wilderness movement comes across as both privileged and ill-informed, as he suggests that the advocates want to let them loose to exploit the environment with no limitations. In addition, he seems to assume that all of those who recognise human influence across the globe, in some cases to the point of denying the existence of wilderness, have no longer any interest in conserving the environment. This level of misinterpreting the motives of the people involved and rejecting valid criticism is unlikely to be helpful in the attempts to negotiate conflicts, and could very well alienate both the conservationists and the extraction oriented industries.

Robin (2014), and Wakild (2014), who have studied wilderness conservation outside the Western cultural sphere, note that other cultures and languages may not even recognise the word and concept, especially if the domains of culture and nature have historically not been clearly separated. In these areas, somewhat successful results have been reached by

preserving the indigenous locals' sense of ownership of the land, and leaving them in peace at their traditional habitations. As this study has found out, a similar approach is called for in Scotland, both in the newspaper articles analysed, and by the survey respondents. However, as Wakild also acknowledges, increasing population sizes make this a tricky approach, as some limitations to the exploitations must be set in order to reach conservation targets, and, as suggested by the comments of the survey respondents of this study, different stakeholder groups can have very different ideas on how much and what type of use is appropriate.

When it comes to wilderness in Scotland, the survey results seem to reflect those reached in previous studies. The human presence is acknowledged but generally well tolerated by the visitors, supporting the aforementioned idea that while there is no American style wilderness in Scotland, there are wild areas offering wilderness experience. And as already suggested by Aitken (1977), and the earlier studies he cites, visitors do not generally mind meeting other visitors with a similar approach to nature to their own. As noted also by SNH (2003) and some studies on wilderness health benefits (Wheeler *et al.*, 2012; Bell *et al.*, 2015), the coastal and marine areas are seen as adding something extra to that wilderness experience, especially for the sailors and the divers, and the survey respondents do not seem to consider traditional fishing boats to negatively impact their positive experience.

As for sea-specific wilderness designations, Barr's (2001) suggestion of using a relative scale of pristine when designating marine wilderness areas, starting from 'as free of human influences as possible', seems to match with the conclusions that can be drawn from the legal and policy text analysis. On land, a scale of wildness is required if the goal is to cover everything from the Scandinavian coniferous forest areas to the Scottish islands, and

it is logical to create a similar scale for marine environment. What makes it harder is the difficulty of tracing human impact at sea, as cause and effect can take place very far apart.

7.4. How do the stakeholders feel about their opportunities to participate in decision making?

As discussed in Chapter 2.3. of the literature review, involving locals and stakeholders in the decision making process has been considered the ethical and beneficial thing to do in management projects for several decades. It has also been argued that local knowledge is fundamental for successful management of the natural environment. Consultation is also written into UK and Scottish law, although there are exceptions for overriding the public interest (see Chapter 2.4.1.). As noted by Pimbert and Pretty (1995) in their typology of participation, in consultation the problems and their solutions are defined by those doing the consultation, and the process does not necessarily concede any share in decision-making to the participants. As was discovered during this research, the comments of the Scottish fishers regarding the MPA project suggest that they have also experienced this. Their response goes somewhat against Marega and Urataric (2011), who suggest that information and consultation alone are enough to create a sense of ownership and commitment, although they also emphasise the need of mutual trust (which now seems to have been lost between the Scottish fishers and the MPA project). Marega and Urataric also note that involving stakeholders too late in the decision-making process may be worse that not involving them at all, leading to feelings of distrust and manipulation, which seems to be a very similar result to what has happened regarding the MPAs. However, without corresponding views from the MPA management and close observation of the actual consultation process, it remains unknown what exactly went wrong.

As noted above, the newspaper articles as well as some of the survey comments suggest that some of the stakeholders do not trust they will have a genuine opportunity to influence decision making. Residents of the study sites gave a variety of opinions, but many emphasised the importance of personal interest and activity, and questioned the fairness and equality of consultations. Marega and Urataric (2011) note that influence and interest do not always correlate when it comes to stakeholder participation. The conflict at St Abb's VMR also highlights the fact that management disagreements can have significant consequences.

7.4.1. The conflict between conservationists and fishers

The disagreements between fishers and conservationists about the management of marine areas are well documented, and the comments by the professionals who responded – or elected not to respond – to the online survey indicate that the tensions still exist not only in terms of the Scottish MPA designations but with resource management in general, and both sides feel that their agenda is threatened by the other side (cf. Himes 2007, Mangi and Austen 2008, and Jones 2008, as discussed in Chapter 2.3.2.). While Sloan (2002) suggests that we need better understanding of both relevant natural science but especially social science issues, my respondents on both sides of the argument mainly consider the ecological understanding to be lacking. However, Pimbert and Pretty (1995) and Brown (2003) suggest that social sciences are needed to address the stakeholder conflict, rather than the actual management issues. While the cited papers on participatory management are almost unanimous in stating that fair and comprehensive participation is fundamental to successful protected area management, and the legislation also indicates that some level of consultation should take place, the survey responses and the SFF comments (Scottish Fishermen's Federation, 2015a, 2015b) make it clear that stakeholders do not feel that they are being listened to. This, of course, has far-reaching consequences as it can lead to non-

compliance and refusal to cooperate in the future. The situation is not unlike the cases in Kenya and Florida, U.S. described by Frontani (2006): The fishers are concerned over economic impacts and perceived ill treatment by government and management, while the conservationists and policy makers criticise the inefficiency of the institutional arrangements and declines in fisheries and marine habitats.

7.4.2. The theories on the human aspect in environmental management

Many of the theoretical approaches discussed in Chapter 3 present the idea of creating a new kind of environmentally aware citizenship as a next step on the road towards acknowledging and utilising the human aspect in conservation and management. Post-normal science aims for the 'sophistication' of public, with groups of citizens utilising their own knowledge (Funtowicz & Ravetz, 2003; Ravetz, 2004). This will, in turn, lead to new concepts and measurements of value, that can be applied to features of nature for policy purposes (Funtowicz & Ravetz, 1994). Marine citizenship aims to educate people to take both charge and responsibility of their environment (McKinley and Fletcher, 2010). The idea of a new, environmental type of citizenship even features in an opinion of the Committee of the Regions (2013). Increasing the students' knowledge of the marine environment is supposed to increase their awareness of and participation in political processes, thus empowering them to look after the oceans. Yet, as Gruenewald (2004) discusses, formal education's restrictions and limitations, particularly its subordinacy to the political and market practices, make it extremely difficult if not impossible to create the level of societal change the promoters of the new kind of citizenship are imagining. In other words, the institutions currently in power are not willing to change the public's knowledge to the point where it would diminish their power. Outside formal education there is more liberty – depending on sources of funding – but it is difficult to reach those who are not already similarly aligned.

The newspaper analysis shows that the Scottish are happy and capable to use the newspapers as their tool, to what Derrida (1992) calls *secure a place in the public visibility*, and the public opinion. Considering that Derrida claims this public opinion manipulation is the road to a citizens' assembly, one might suggest that this is environmental citizenship at work. Similarly, my survey respondents bring up environmental and management issues that they have knowledge of. However, the discourse analysis and survey responses indicate that the goals seem mostly to come from the individuals' personal perspectives and needs, whether related to their profession, domicile or something else. Nothing in the responses themselves indicate a sense of shared citizenship. The current strong sense of nationalism across Europe also suggests that the kind of global citizenship discussed by Valencia Sáiz is currently an unlikely outcome. Therefore, from this research we can conclude that while the tools for environmental or marine citizenship are there, more work on both is needed to avoid personal goals overriding the global ones. As discussed above, affecting the public will not be enough but a political and economic change is needed, not only to manage the environment sustainably, but also to enable the people to take responsibility of the environment beyond their own survival.

As with any discussion with a political dimension, a lot about wilderness is about power, in personal, political, and Foucauldian sense. As discussed in Chapter 4, a hiker or an adventurer can lose power getting lost in the wilderness, or gain it by surviving the experience or reaching new levels of physical and mental health. A dangerous criminal gains power over authorities by finding a hiding place in the wild, such as Raoul Moat in Hamill, 2010, and Hamill & Leadbetter, 2010. Wilderness can also be overpowered and tamed, by a gardener in a park like a settler in the old American West (*Daily Record*,

2009a). As defining an area as wilderness prevents or limits extractive use, it gives power over those who would exploit it for financial gain. Similarly it gives power over those who depend on the natural resources for day to day survival. Once wilderness has been declared, management power can be given to or taken away from stakeholders by higher authorities.

According to Foucault, power and knowledge create and enforce each other (Winkel, 2012). In the analysed newspapers, those who are known to have survived their wilderness experience are sometimes treated as sages – or at least coaches in reality TV shows. As discovered in the literature review, the advocates of natives' rights and participatory management promote the idea that local natives have unique knowledge of wilderness areas, and should thus be involved in management decisions (Pimbert and Pretty, 1995; Brown, 2003). When a BBC document shows us polar bears in an enclosure, not making it clear the footage is not shot in the wild (*Daily Record*, 2011c), our sense of knowledge is violated. We thought we knew something, instead we were tricked by those in power – after all, who do we expect to know more about nature than Sir David Attenborough? And what else is the metaphorical wilderness if not a place of powerlessness, when one fades from the knowledge of others?

	Perspective: "Wilderness" is something positive for both environment and people	Perspective: "Wilderness" is harmful for the people who depend on the environment
Sign:	**Signifier:** *wilderness,* **Signified:** A large area untouched by humans, preferably with impressive landscapes and charismatic species. Indicates that other areas are influenced, if not tainted by human presence.	**Signifier**: *wilderness*, **Signified**: An area where humans have been forcibly removed, barring any gaining of livelihood.

Statement:	Concern over the global human influence in the environment, and the loss of something unique, possible patriotic connotations.	Concern over losing traditional rights, home, and/or livelihood to elitist/estranged environmental movement.
Positivity:	Conservation of wilderness/wild areas written into policy/law	Conservation of wilderness/wild areas written into policy/law, with the exclusion of people.
Discourse:	The message of *wilderness* is that the planet is at risk of human-induced destruction, which we can combat trough Protected Areas.	The message of *wilderness* is that the needs of locals are ignored, in favour of possibly misjudged environmental goals
Discoursive formation:	The environmental/conservation movement	The community-centric conservation approach, called "new conservation" by Brown (2003). Also applicable to thinking that is in general critical towards environmental conservation and/or MPAs.
Episteme:	The Wilderness Episteme starts with the American wilderness movement, and has in some form or another spread to all continents.	The continuous battle of a person against the machinery of the government or bureaucracy. In developing countries in particular related to social equality and indigenous rights.

Table 7.1 Two interpretations of wilderness in Foucault's layers of discourse

Table 7.1 positions the sign *wilderness* into Foucault's layers with two different interpretations, one from the traditions of the wilderness movement, one from those seeing wilderness areas as harmful to indigenous peoples, fishers, or other people dependant on the natural environment. As is evident, the same *sign* can create very different sets of knowledge. Yet it can be assumed that most individuals holding one perspective are at least to some extent aware of the other, and might even swap between them. And as

Winkel (2012) describes how the colonial powers created the forest in the developing countries, similarly both of these discourses create the wilderness, often in the very same physical locations. Matching Winkel's findings on debates in developed countries, the wilderness stakeholders have access to virtually the same education and knowledge as the decision makers. Thus the debate becomes a question of picking the facts in support of one's position, and trying to appeal to the emotions of others.

7.5. On the study methodology

Reviewing marine wilderness is made somewhat challenging by the fact that the discourses are to an extent largely terrestrial. A significant part of the literature does not differentiate between terrestrial and marine wilderness, or ignores marine wilderness altogether. Therefore, this research has examined both kinds of wilderness side by side, to discuss both the differences and similarities. In the literature review, discourse analysis, and surveys, both kinds of wildernesses have been analysed, to learn from the similarities as much as from the gaps in between.

As was anticipated, the response rate for the surveys was limited. As discussed in the relevant Chapter, the sample was also self-selecting, meaning that the responses largely came from respondents who had opinions they wished to express, but on the other hand in small companies or organisations the social pressure may have had an effect on the willingness to respond. Further research with a larger sample would be useful, to examine the discussed issues further.

7.6. Conclusions

It turns out that in many contexts *wilderness* is an ambiguous term, changing according to the time, the place, the goals, and the mood of a person. Yet it seems to have measurable benefits, and there is political will both in Scotland and in the EU to define and conserve it – even if it is in the form of *wild land* rather than *wilderness*. By most standards, there is very little actual virgin wilderness left, either on land or at sea. On land, we accept the concept of "rewilding", which often requires heavy human interference, as it provides us both with the wilderness experience, and at least in some cases improved biodiversity. The Marine Strategy Framework Directive's idea of restoring marine ecosystems can be seen as meaning essentially the same thing. However, how marine environment actually should be restored is not really discussed.

With eight different ways to understand wilderness, is it actually a workable conservation term? As noted by McMorran *et al.* (2008), an ill-defined category is impossible to protect. According to Pimbert and Pretty (1995), sustainable development cannot be a specific strategy as *sustainability* cannot be precisely defined. Equally, wilderness conservation is a tricky strategy unless we can precisely define *wilderness.* In international context such as the EU law, translation issues should also be taken into account. As noted in several studies, *wilderness* as such is not a concept that exists in every culture and language.

And if we haven't fully agreed on the definition of wilderness on dry land, are we ever going to be able to define it in the ocean, in a much less understood and a much harder to control environment? Even if using the concept is not actually harmful, is it useful? The more we learn about the ocean, the more critical condition we find it to be in. What we must decide is: Do we have resources to spend to define what marine wilderness means, and to find the areas that match that definition? Or are those resources better spent

conserving and managing the oceans according to more straightforward concepts? Clearly there are mental, and possibly physical health benefits to wilderness experience, but it would appear that no specific defined wilderness area is required for that experience on land, and the same is likely to apply at sea.

From the stakeholder perspective, the *wilderness* concept in general has its benefits for tourism and recreation, as it has advertising value. At the same time it is harmful for extraction based business, as it enforces a negative image of some activities. Many visitors seek the wilderness experience, but as mentioned above, their individual standards have some significant variance. Research is currently being done on the health benefits, and the exact requirements to achieve them, but it does seem that time spent in nature has some measurable benefits. On these grounds, there is a humane justification for preserving areas that provide a nature or wilderness experience, and that are accessible to as large number of people as possible, but their actual label does not seem to be a significant factor. The different interpretations held by the stakeholders, as well as the consequent conflicts, must be acknowledged and managed appropriately. Yet it also needs to be acknowledged that in most conservation management cases it is difficult if not impossible to make everyone completely satisfied.

While *wilderness* is a concept with a unique international history, and all its features are not necessarily applicable to other concepts, the complexity of interpretations should be taken into account whenever introducing new or imprecise concepts to environmental policy and law. While the intention behind many conservation buzzwords is good, the benefits should be carefully weighed against potential conflicts and management costs. The environmental movement is still in a position where it must consider its costs, as well as the support of the public.

The oceans, unlike many a rugged terrestrial wilderness area, is likely always going to be a food source first and a recreational area after, if ever. Therefore, controlling the conflict between conservation and fishing is fundamental to marine management. In any situation where one feels her or his livelihood is threatened, mistrust and a sense of betrayal can take root very easily. The "us" versus "them" mind set should be avoided at all costs. As was experienced during this research, conflict between some groups of stakeholders is likely going to affect the interactions of those groups of stakeholders also in the future, and also with actors unrelated to the original conflict.

In the resource use vs. conservation debate in the marine environment, stakeholder groups especially from the extractor side tend to demand a strict scientific basis for management decisions. The call for "best available scientific evidence" is backed by several EU documents, including the CFP. Basing wilderness designations with fishing bans on human experience in a way that would be considered acceptable in this framework would likely prove challenging. In order to be truly functional, the legislation also needs to be genuinely integrated to fisheries policy, as well as agriculture, energy, trade, and other relevant policies. In the case of two competing legislations, the one with financial gain is always more likely to win.

In sum, from this research we can conclude that while there is value in the wilderness character, *marine wilderness* remains an ambiguous concept. Considering the tensions in fisheries management, marine conservation and resource use, control needs to be based on straightforward, quantifiable rules. In addition, rushing towards mapping the wilderness without clear definition and understanding of benefits easily becomes a waste of resources. That does not mean that the concept of *marine wilderness* necessarily needs to be dropped

entirely; in fact, if the protected areas can be used to promote marine knowledge and marine recreation, the better. Yet for marine conservation *wilderness* is more useful if seen as an added benefit than the ultimate goal, due to the significant added management complications. In order to reach the associated conservation goals, other, more quantifiable parameters related to biodiversity and habitats should be easier to justify. Stakeholder involvement seems to be moving in the right direction, but there is still a lot of work to be done in Scotland. Consulting stakeholders on a broad scale is not enough in itself to maintain amicable terms and a will of cooperation, if those consulted feel that their proposals are completely ignored and the results manipulated.

7.7. Recommendations

So what can the rest of Europe learn from the Scottish on *wilderness* and its management, according to this research? First, if we are to keep promoting wilderness designations on a political level, we need to decide whether we are going down the "least human-influenced environment" route or the "places that can offer wilderness experiences to humans" route, or if we shall find a way to combine the two. The Scottish *wild land* approach combines the goal of "allowing the process of natural change to continue unhindered" (Habron, 1998) in "limited core areas of mountain and moorland and remote coast, which mostly lie beyond contemporary human artefacts" (Scottish Natural Heritage, 2003) with human perceptions such as "natural", "beauty", and "solitude" (Habron, 1998; Scottish Natural Heritage, 2003). While both definitions are difficult to define, the former will undeniably be stricter than the latter. The first will vary from country to country, whereas the second will vary from person to person.

There is basis in the EU legislation to create a more detailed protection policy for a scale of wild areas and wilderness. Pooling spatial data, usage information and other relevant

data across member states, it is possible to develop categories of areas with different levels and sizes of natural environment without visible human impact that can be and are used for both environmental conservation and human recreation/rehabilitation purposes. This would allow the member states to select the categories most appropriate for their own environment and purposes. However, the added value for such a policy should be carefully considered to avoid using resources on creating redundant policies, or the 'scale' to be used as an excuse to designate smaller or less biodiverse areas than would be desirable or indeed possible.

SNH has highlighted the importance of a locational, clearly defined category for functional protection, and "collectively agreeing on new values for land". The differences between physical and perceptual attributes have also been acknowledged, which creates problems of its own. As noted by McMorran et al (2008), improving biodiversity may sometimes negatively impact the wild character. However, from the survey responses and newspaper readers' letters, it would seem that many visitors and inhabitants are aware of the human impacts in the Scottish environment. Those people at least likely would not be overly displeased even if, for example, a replanted forest concealed an aesthetic landscape. Regardless, clear rules would need to be set for potential conflict situations, detailing what the wilderness attributes are, and if and how improving biodiversity takes precedence over conserving wild character, or vice versa.

While the value of small, even visually modest wild areas is acknowledged in policy, it should be kept in mind that part of the public will associate the term "wilderness" with large and sublime areas. Broadly, it can be assumed that practitioners and those who are well-informed about human influence on the environment are mainly concerned about the detectable impacts, while the general public puts more emphasis on aesthetics. Therefore it

is important to connect the idea of wilderness with the practice of wilderness – or wildness – conservation. For this issue, sharing information is again important, to ensure that the value of the smaller areas and the related conservation decisions is understood and discussed as widely as possible.

The political situation in the UK and Scotland is at the time of writing both unique and interesting. At the moment there is no information on what the relationship between the two countries and the EU will be, and it looks likely that it will take years before we find out. While environmental legislation is always influenced by political trends and fluctuation, the current situation is unprecedented. It will be interesting to see what direction the Scottish policy and legislation will take, and how the EU will find balance between the economic crises and its biodiversity strategy, not to mention the Paris Climate Agreement. While the Brexit vote was overall boosted by the hope of re-regionalising decision making – and thus perhaps empowering the stakeholders – environmental conservation remains an issue that requires political will and cross-borders cooperation. The Scottish fishermen are determined to be re-empowered, while Holyrood is equally determined to keep Scotland in the EU. The impact of Brexit on the future of the European wilderness legislation remains to be seen.

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Annex 1 – Exploratory study: visitors' questionnaire

**WILDNESS IN THE SCOTTISH COASTAL
AND MARINE PROTECTED AREAS AND RESERVES**

Thank you for taking the time to participate in this study. The purpose of this research is to examine the visitors' views and perceptions of the Scottish coastal and marine environment, protected areas, and reserves. You are asked to take part, as the study would benefit from your personal views of these matters.

Filling the questionnaire will take around 20 minutes of your time. Please answer the questions by yourself, without discussing them with other people. Your responses are confidential, and no identifying information such as your name or address will be collected. The results of this study will be used for scholarly purposes only. After the research period, the data may be archived for the use of future researchers.

This study is conducted as a part of a PhD research project, estimated to be completed during 2016. The research is funded by the lead researcher, and it has been ethically approved by the University of Kent. Please note that by filling in and returning the questionnaire you give your consent to participate in this study.

For any questions or comments you can contact the lead researcher at any time. Thank you for taking the time to take part in the project.

Lead researcher:

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WILDNESS IN THE SOCTTISH COASTAL AND MARINE PROTECTED AREAS AND RESERVES

1. What brings you to this particular area?

2. How often do you visit this area?

    ☐ This is my first visit

    ☐ I visit daily

    ☐ I visit weekly

    ☐ I visit monthly

    ☐ I visit yearly

    ☐ I visit less than yearly

3. Do you visit other nature reserves? Where? How often?

4. How well do you think the word "wildness" describes this area? Circle the appropriate number.

      1 - 2 - 3 - 4 - 5

  very badly   very well

Why?

5. Which of these words are most appropriate to a wildness area/visiting a wildness area? Tick the most appropriate box.

The area is…

Wild	☐	☐	☐	☐	☐	Tame [Orderly?]
Attractive	☐	☐	☐	☐	☐	Unattractive
Exciting	☐	☐	☐	☐	☐	Peaceful
Unknown	☐	☐	☐	☐	☐	Familiar [Known?]
Relaxing	☐	☐	☐	☐	☐	Threatening
Unsafe	☐	☐	☐	☐	☐	Safe
Quiet	☐	☐	☐	☐	☐	Noisy

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Boring	☐	☐	☐	☐	☐	Interesting
Rough	☐	☐	☐	☐	☐	Smooth
Secular	☐	☐	☐	☐	☐	Spiritual
Scottish	☐	☐	☐	☐	☐	Non-Scottish
Remote	☐	☐	☐	☐	☐	Close
Developed	☐	☐	☐	☐	☐	Primitive
Small	☐	☐	☐	☐	☐	Large

I feel…

Happy	☐	☐	☐	☐	☐	Sad
Tense	☐	☐	☐	☐	☐	Tranquil
Energetic	☐	☐	☐	☐	☐	Exhausted
Unstimulated	☐	☐	☐	☐	☐	Stimulated
Connected	☐	☐	☐	☐	☐	Disconnected
Vulnerable	☐	☐	☐	☐	☐	Invulnerable

6. How do the following thirteen elements in this particular area affect your wildness experience?

a) Buildings

    1 - 2 - 3 - 4 - 5

very negative   very positive

Comments:

b) Campsites

    1 - 2 - 3 - 4 - 5

very negative   very positive

Comments:

c) Marked hiking trails

1 - 2 - 3 - 4 - 5

very negative   very positive

Comments:

d) Wild animals on land

1 - 2 - 3 - 4 - 5

very negative   very positive

Comments:

e) Wild animals at sea

1 - 2 - 3 - 4 - 5

very negative   very positive

Comments:

f) Litter

1 - 2 - 3 - 4 - 5

very negative   very positive

Comments:

g) Cars

1 - 2 - 3 - 4 - 5

very negative   very positive

Comments:

h) Boats on nearby waters

1 - 2 - 3 - 4 - 5

very negative   very positive

Comments:

i) Pets

1 - 2 - 3 - 4 - 5

very negative   very positive

Comments:

j) Hikers

1 - 2 - 3 - 4 - 5

very negative   very positive

Comments:

k) Cyclists

1 - 2 - 3 - 4 - 5

very negative   very positive

Comments:

l) Kayakers

1 - 2 - 3 - 4 - 5

very negative   very positive

Comments:

m) Divers

1 - 2 - 3 - 4 - 5

very negative   very positive

Comments:

7. What other aspects affect your wildness experience in this area?

8. What for you are the main differences between wildness on land and wildness at sea?

9. What can marine/coastal wildness offer you that inland wildness cannot?

10. What do you think should be done to marine/coastal wildness areas in the long-term?

11. Which, if any, of the following organisations are you a member of /sponsor/sympathise with?

	member	sponsor	sympathiser
WWF	☐	☐	☐
Greenpeace	☐	☐	☐
RSPCA	☐	☐	☐
RSPB	☐	☐	☐
Rambler's Association	☐	☐	☐
local Wildlife Trust	☐	☐	☐
FishFight	☐	☐	☐
Oceana	☐	☐	☐
Other_____	☐	☐	☐

12. Which of the following newspapers would you most likely read?

☐ The Scotsman ☐ Daily Mail ☐ The Daily Telegraph

☐ The Sun ☐ Financial Times ☐ The Guardian

☐ The Independent ☐ Daily Mirror ☐ I'm not familiar with any of these newspapers

13. What is your opinion on the independence of Scotland? Tick the appropriate box.

Strongly in favour ☐ ☐ ☐ ☐ ☐ Strongly against

Personal info

Gender

☐ Male

☐ Female

Age

☐ Under 18

☐ 18-30

☐ 31-40

☐ 41-50

☐ 51-60

☐ 61-70

☐ 71-80

☐ 81 or over

Nationality:

Level of education (highest grade level completed)

☐ Elementary/primary school

☐ High school

☐ College/University undergraduate

☐ Master's Degree

☐ Doctorate

☐ Other

What is/was the usual occupation of the main wage earner in your household?

Thank you for taking the time to complete this survey. Any questions or comments can be directed to Vilma Kuuliala at vak3@kent.ac.uk.

Annex 2 – Exploratory study: stakeholders' questionnaire

**STAKEHOLDER PARTICIPATION IN THE SCOTTISH
COASTAL AND MARINE PROTECTED AREAS
AND RESERVES**

Thank you for taking the time to participate in this study. The purpose of this research is to examine the stakeholders' views and perceptions of the Scottish coastal and marine environment, protected areas, and reserves. You are asked to take part, as the study would benefit from your personal views of these matters.

Filling the questionnaire will take around 20 minutes of your time. Please answer the questions by yourself, without discussing them with other people. Your responses are confidential, and no identifying information such as your name or address will be collected. The results of this study will be used for scholarly purposes only. After the research period, the data may be archived for the use of future researchers.

This study is conducted as a part of a PhD research project, estimated to be completed during 2016. The research is funded by the lead researcher, and it has been ethically approved by the University of Kent. Please note that by filling in and returning the questionnaire you give your consent to participate in this study.

For any questions or comments you can contact the lead researcher at any time. Thank you for taking the time to take part in the project.

Lead researcher:

Vilma Kuuliala

PhD Candidate (Biodiversity Management)
Durrell Institute of Conservation and Ecology
University of Kent, Canterbury CT2 7NR
vak3@kent.ac.uk

STAKEHOLDER PARTICIPATION IN THE SCOTTISH COASTAL AND MARINE PROTECTED AREAS AND RESERVES

1. What brings you to this particular area?

2. How long have you lived or worked in this area?

☐ Less than one year

☐ 1-5 years

☐ 6-10 years

☐ 11-20 years

☐ over 20 years

3. Do you visit other nature reserves? Where and how often?

4. How does this protected area affect you as a professional?

5. What are the three most important criteria in relation to the management of this area? Grade from 1 to 3.

___ Cost effectiveness

___ Appropriate enforcement of legislation and management decisions

___ Stakeholder involvement

___ Tourism management

___ Ecosystem management

___ Education of public

___ Water quality

___ Fisheries health

___ Nature protection

___ Tourism revenue and employment

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___ Protection of aesthetic and cultural values

___ Contributing to wider conservation strategies

___ Other:

___ Other:

___ Other:

6. How important is participation to you personally? Circle the appropriate number.

1   -   2   -   3   -   4   -   5

not at all important   very important

Why?

7. How well do you feel your own opinion is taken into account in the management of this area? Circle the appropriate number.

1   -   2   -   3   -   4   -   5

  not at all   very well

Why?

8. Which of these options is true for you as a stakeholder? Tick all that apply.

	Before decisions take place	After decisions take place
I am informed of the management decisions		
I am informed of the opinions given by other stakeholders		
I am asked to respond to surveys about the area management		
I am asked to give my opinions about possible management decisions in writing		
I have the option to participate in workshops and/or discussion groups		
I provide resources for the park in return for material compensation		

I have other ways available to participate in the decision-making, which?

9. What other ways do you wish you could use to affect decision-making?

10. Which, if any, groups' or individuals' opinions are taken into account more than those of others? Why is that?

11. What do you think are the results of stakeholder participation/lack of participation in the management of this area?

12. What do you think is the most effective way for you to affect the management of this area?

13. Other opinions about the management of this area (continue on the back page if necessary):

14. Which, if any, of the following organisations are you a member of /sponsor/sympathise with?

	member	sponsor	sympathiser
WWF	☐	☐	☐
Greenpeace	☐	☐	☐
RSPCA	☐	☐	☐
RSPB	☐	☐	☐
Rambler's Association	☐	☐	☐
local Wildlife Trust	☐	☐	☐
FishFight	☐	☐	☐
Oceana	☐	☐	☐
Other_____	☐	☐	☐

15. Which of the following newspapers would you most likely read?

☐ The Scotsman ☐ Daily Mail ☐ The Daily Telegraph

☐ The Sun ☐ Financial Times ☐ The Guardian

☐ The Independent ☐ Daily Mirror ☐ I'm not familiar with any of these newspapers

16. What is your opinion on the independence of Scotland? Tick the appropriate box.

Strongly in favour   ☐   ☐   ☐   ☐   ☐   Strongly against

Personal info

Gender
- ☐ Male
- ☐ Female

Age
- ☐ Under 18
- ☐ 18-30
- ☐ 31-40
- ☐ 41-50
- ☐ 51-60
- ☐ 61-70
- ☐ 71-80
- ☐ 81 or over

Nationality: _____

Level of education (highest grade level completed)
- ☐ Elementary/primary school
- ☐ High school
- ☐ College/University undergraduate
- ☐ Master's Degree
- ☐ Doctorate
- ☐ Other

What is/was the usual occupation of the main wage earner in your household?

Annex 3 – Online surveys cover letter

WILDERNESS IN THE SCOTTISH MARINE REGION

Thank you for taking the time to participate in this study. The purpose of this research is to examine stakeholders and visitors' views and perceptions of the Scottish marine environment and management. You are asked to take part, as the study would benefit from your personal views of these matters.

Filling the questionnaire will take around 20 minutes of your time. Please answer the questions by yourself, without discussing them with other people. Your responses are confidential, and no identifying information such as your name or address will be collected. The results of this study will be used for scholarly purposes only. After the research period, the data may be archived for the use of future researchers.

This study is conducted as a part of a PhD research project, estimated to be completed during 2016. The research is funded by the lead researcher, and it has been ethically approved by the University of Kent. Please note that by filling in and returning the questionnaire you give your consent to participate in this study.

For any questions or comments you can contact the lead researcher at any time. Thank you for taking the time to take part in the project.

Lead researcher:

Vilma Kuuliala
PhD Candidate (Biodiversity Management)
Durrell Institute of Conservation and Ecology
University of Kent, Canterbury CT2 7NR
vak3@kent.ac.uk

Annex 4 – Online survey: fishers

1. How long have you been working as a professional fisher?

- ☐ Less than a year
- ☐ 1-5 years
- ☐ Up to 10 years
- ☐ Up to 20 years
- ☐ More than 20 years

2. Select the option that applies to you:

- ☐ I am a first generation fisher
- ☐ Fishing has been a tradition in my family before me

3. Which fishing method(s) do you use?

- ☐ Bottom trawling
- ☐ Mid-water trawling
- ☐ Twin beam trawling
- ☐ Seine-netting
- ☐ Purse-seining
- ☐ Potting/creeling
- ☐ Scallop dredging
- ☐ Longlines
- ☐ Set Nets
- ☐ Other:

4. In which areas do you fish?

5. Do you go out to sea during your free time? Where and for what purpose?

6. Do you spend time in nature reserves or wilderness areas on land? Where?

7. How important is fishing for you economically?

Very unimportant	Unimportant	Neither important nor unimportant	Important	Very important
☐	☐	☐	☐	☐

Comments:

8. How important is fishing for your identity?

Very unimportant	Unimportant	Neither important nor unimportant	Important	Very important
☐	☐	☐	☐	☐

Comments:

9. When at sea, how strongly do you agree or disagree with the following?

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I am at peace	☐	☐	☐	☐	☐
I am in danger	☐	☐	☐	☐	☐
It is beautiful	☐	☐	☐	☐	☐
It is messy	☐	☐	☐	☐	☐
I am happy	☐	☐	☐	☐	☐
I am lost	☐	☐	☐	☐	☐
I am well	☐	☐	☐	☐	☐
I am achieving something	☐	☐	☐	☐	☐
I am in the wilderness	☐	☐	☐	☐	☐

[For question 10 about the images, see Annex 10]

11. How do you feel about the current level of management of marine areas?

12. Who should be involved in making the management decisions?

13. What are your greatest concerns regarding the current marine policies?

Gender
- ☐ Male
- ☐ Female
- ☐ Do not wish to answer

Age
- ☐ 18-30
- ☐ 31-40
- ☐ 41-50
- ☐ 51-60
- ☐ 61-70
- ☐ 71-80
- ☐ 81+

Nationality: _____

Level of education (highest grade level completed)
- ☐ Elementary/primary school
- ☐ High school
- ☐ College/University undergraduate
- ☐ Master's Degree
- ☐ Doctorate
- ☐ Other

Annex 5 – Online survey: other professionals

(each group was presented with a separate questionnaire, but the questions were the same)

1. How long have you been working [in your profession]?

☐ Less than a year

☐ 1-5 years

☐ Up to 10 years

☐ Up to 20 years

☐ More than 20 years

2. What is your main motivation for your work?

3. How often do you personally go out to sea?

☐ Monthly or more

☐ Several times a year, but less than monthly

☐ Once a year

☐ Less than once a year

☐ Never

4. How important is the sea for your professional identity?

Very unimportant	Unimportant	Neither important nor unimportant	Important	Very important
☐	☐	☐	☐	☐

Comments:

5. When at sea, how strongly do you agree or disagree with the following?

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I am at peace	☐	☐	☐	☐	☐
I am in danger	☐	☐	☐	☐	☐
It is beautiful	☐	☐	☐	☐	☐
It is messy	☐	☐	☐	☐	☐
I am happy	☐	☐	☐	☐	☐
I am lost	☐	☐	☐	☐	☐
I am well	☐	☐	☐	☐	☐
I am achieving something	☐	☐	☐	☐	☐
I am in the wilderness	☐	☐	☐	☐	☐

[For question 6 about the images, see Annex 10]

7. How do you feel about the current level of management of marine areas?

8. Who should be involved in making the management decisions?

9. What are your greatest concerns regarding the current marine policies?

Gender

- ☐ Male
- ☐ Female
- ☐ Do not wish to answer

Age

- ☐ 18-30
- ☐ 31-40
- ☐ 41-50
- ☐ 51-60
- ☐ 61-70
- ☐ 71-80
- ☐ 81+

Nationality:

Level of education (highest grade level completed)

- ☐ Elementary/primary school
- ☐ High school
- ☐ College/University undergraduate
- ☐ Master's Degree
- ☐ Doctorate
- ☐ Other

Annex 6 – Online survey: divers

1. How often do you go sea diving?

- ☐ This is my first time
- ☐ I dive several times a month
- ☐ I dive several times a year
- ☐ I dive about once a year
- ☐ I dive less than once a year

2. Select all that apply

- ☐ I dive for leisure
- ☐ I dive for research
- ☐ I dive for other professional purposes

3. In which areas do you dive?

4. Do you visit nature reserves or wilderness areas on land? Where?

5. When at sea, how strongly do you agree or disagree with the following?

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I am at peace	☐	☐	☐	☐	☐
I am in danger	☐	☐	☐	☐	☐
It is beautiful	☐	☐	☐	☐	☐
It is messy	☐	☐	☐	☐	☐
I am happy	☐	☐	☐	☐	☐
I am lost	☐	☐	☐	☐	☐
I am well	☐	☐	☐	☐	☐
I am achieving something	☐	☐	☐	☐	☐
I am in the wilderness	☐	☐	☐	☐	☐

[For question 6 about the images, see Annex 10]

7. How do you feel about the current level of management of marine areas?

8. Who should be involved in making the management decisions?

9. What are your greatest concerns regarding the current marine policies?

Gender
- ☐ Male
- ☐ Female
- ☐ Do not wish to answer

Age
- ☐ 18-30
- ☐ 31-40
- ☐ 41-50
- ☐ 51-60
- ☐ 61-70
- ☐ 71-80
- ☐ 81+

Nationality: _____

Level of education (highest grade level completed)
- ☐ Elementary/primary school
- ☐ High school
- ☐ College/University undergraduate
- ☐ Master's Degree
- ☐ Doctorate
- ☐ Other

Annex 7 – Online survey: visitors

1. How often do you go out to sea for leisure purposes?

☐ This is my first visit
☐ I visit several times a year
☐ I visit once a year
☐ I visit less than once a year

2. Which areas do you visit?

3. Do you visit nature reserves or wilderness areas on land? Where?

4. When at sea, how strongly do you agree or disagree with the following?

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I am at peace	☐	☐	☐	☐	☐
I am in danger	☐	☐	☐	☐	☐
It is beautiful	☐	☐	☐	☐	☐
It is messy	☐	☐	☐	☐	☐
I am happy	☐	☐	☐	☐	☐
I am lost	☐	☐	☐	☐	☐
I am well	☐	☐	☐	☐	☐
I am achieving something	☐	☐	☐	☐	☐
I am in the wilderness	☐	☐	☐	☐	☐

[For question 6 about the images, see Annex 10]

7. How do you feel about the current level of management of marine areas?

8. Who should be involved in making the management decisions?

9. What are your greatest concerns regarding the current marine policies?

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Gender
- ☐ Male
- ☐ Female
- ☐ Do not wish to answer

Age
- ☐ 18-30
- ☐ 31-40
- ☐ 41-50
- ☐ 51-60
- ☐ 61-70
- ☐ 71-80
- ☐ 81+

Nationality: _____

Level of education (highest grade level completed)
- ☐ Elementary/primary school
- ☐ High school
- ☐ College/University undergraduate
- ☐ Master's Degree
- ☐ Doctorate
- ☐ Other

Annex 8 – Online survey: Images

(Images not in original size)

Picture 1/13

How strongly do you agree or disagree that the word "wilderness" describes this image?

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
☐	☐	☐	☐	☐

Comments:

Picture 2/13

How strongly do you agree or disagree that the word "wilderness" describes this image?

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
☐	☐	☐	☐	☐

Comments:
Picture 3/13

How strongly do you agree or disagree that the word "wilderness" describes this image?

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
☐	☐	☐	☐	☐

Comments:

Picture 4/13

How strongly do you agree or disagree that the word "wilderness" describes this image?

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
☐	☐	☐	☐	☐

Comments:

Picture 5/13

How strongly do you agree or disagree that the word "wilderness" describes this image?

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
☐	☐	☐	☐	☐

Comments:

Picture 6/13

How strongly do you agree or disagree that the word "wilderness" describes this image?

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
☐	☐	☐	☐	☐

Comments:

Picture 7/13

How strongly do you agree or disagree that the word "wilderness" describes this image?

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
☐	☐	☐	☐	☐

Comments:

Picture 8/13

How strongly do you agree or disagree that the word "wilderness" describes this image?

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
☐	☐	☐	☐	☐

Comments:

Picture 9/13

How strongly do you agree or disagree that the word "wilderness" describes this image?

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
☐	☐	☐	☐	☐

Comments:

Picture 10/13

How strongly do you agree or disagree that the word "wilderness" describes this image?

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
☐	☐	☐	☐	☐

Comments:
Picture 11/13
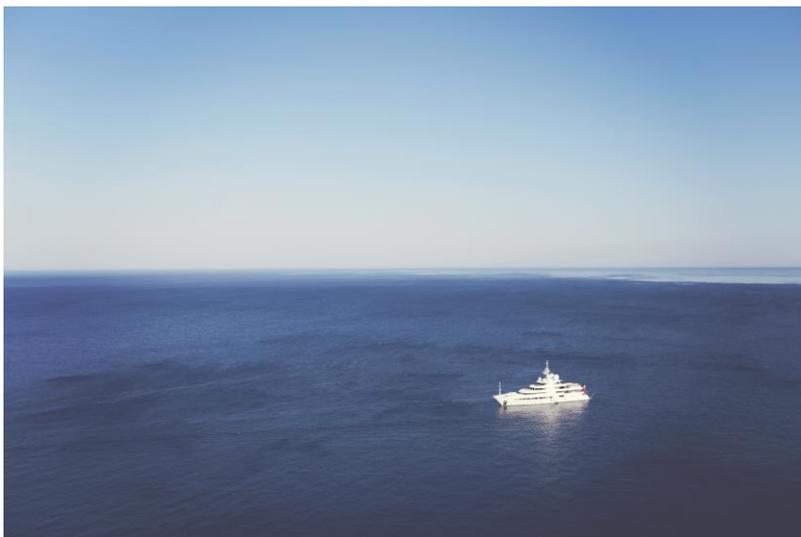
How strongly do you agree or disagree that the word "wilderness" describes this image?

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

☐   ☐   ☐   ☐   ☐

Comments:

Picture 12/ 13

How strongly do you agree or disagree that the word "wilderness" describes this image?

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
☐	☐	☐	☐	☐

Comments:

Picture 13/13

How strongly do you agree or disagree that the word "wilderness" describes this image?

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
☐	☐	☐	☐	☐

Comments: