Rewilding Britain: Exploring the opportunities and challenges for NGOs

Rachel Forsyth

MSc Environmental Management (Countryside and Protected Area

Management)

Birkbeck College, University of London

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DECLARATION

I certify that the work submitted herewith is my own and that I have duly acknowledged any

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Abstract

This study explores the role of non-governmental organisations (NGOs) in rewilding, in the United Kingdom, and highlights the opportunities and challenges they face. Though a relatively new discipline, rewilding is becoming increasingly important in the UK, due to the belief that it can halt the decline in biodiversity recorded over the last 100 years. It is different from traditional conservation methods as it focuses on restoring the function and natural processes of ecosystems, as opposed to advancing a particular habitat or species.

Rewilding has been criticised by a number of stakeholders including farmers, government and some NGOs because it is deemed a threat to food production and the role of people within what is considered to be a cultural landscape. Much of the fear around rewilding relates to a model from North America that cannot be replicated in the UK. There has been success for biodiversity in projects that are largely led by NGOs in the UK.

The research used qualitative interviews with participants who worked in or had knowledge of NGOs. Interview transcripts were then coded using thematic analysis and a number of key themes were highlighted.

Whilst perceptions of rewilding were the biggest challenge for NGOs outside of their organisation, the research demonstrated that how NGOs identified rewilding did not matter equally to all groups. Whilst the media, farmers and government required a clear definition, members of NGOs and the general public were excited by ideas such as species reintroductions, even if these were not part of projects. The biggest threat to rewilding was the inability of people to relinquish control and this was of particular importance for NGOs focused on species conservation, due to the species loss that can be a feature of rewilding.

There was broad agreement on the benefit to biodiversity that rewilding offers, especially in comparison to traditional conservation methods. Participants agreed that NGOs not only had a significant role in delivering rewilding, but also in promoting the benefits and lobby government for

changes in policy and agricultural subsidy. NGOs were considered to have a unique set of challenges due to the way they are governed, and participants saw committees and red tape as a potential threat to delivering rewilding.

Opportunities were highlighted around financial benefits that could come from lower intensity management, payments for ecosystem services or tourism. There were however, words of caution around tourism, as participants felt that there would be a saturation point of attractions.

Broadly, rewilding is seen as a positive method of managing land for conservation, financial and human benefit. NGOs could be more effective by agreeing on a clear definition when working with land owners and government, and involving key stakeholders at the early stages of projects.

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1. Introduction

Rewilding has come to the forefront of conservation in the United Kingdom, largely due to the media debate surrounding the topic led, by George Monbiot and his book 'Feral' (2013). Whilst the idea is not new, being developed in North America in the 1990s (Soule and Noss, 1998), it has only been discussed in more depth in the United Kingdom from the late 2000s. Rewilding is viewed as a method to address the loss of biodiversity seen in the UK over the last 100 years (Monbiot, 2015), in a way other conservation methods such as site designation, have failed to do. The Lawton Report (Lawton *et al*, 2010) states that whilst traditional reserves and species-focused conservation have prevented an even greater decline in biodiversity, they alone are not enough to protect the natural environment. The report advocates habitats that are "more, bigger, better and joined." (Lawton *et al*, 2010 p15) Rewilding, it is argued, would support this aim, and there have been successes for biodiversity, at projects including the Knepp Wildland Project (Greenway, 2011), Wild Ennerdale (Browning, 2015) and Carrifran (Ashmole, 2015). Discussion has remained about whether these projects fit with the purist North American vision of rewilding. There has also been debate in the media about whether rewilding is appropriate in the UK, and public perceptions of rewilding differ greatly.

In North America the model has focused on rewilding large areas such as Yellowstone National Park. It has also included the reintroduction of species, including the wolf, to restore natural processes such as predator-prey relationships (Soule and Noss, 1998). Public perceptions of rewilding in the UK have perhaps mistakenly accepted this vision of rewilding as that which non-governmental organisations and promoters of rewilding are trying to achieve. The reality is that in the UK this model is not currently viable due to the availability of space. Not only because of the size of the country, but also the role people play within landscapes, especially around agricultural production.

Rewilding could be seen as a less costly option for managing land as inputs needed are lower, and therefore could be a viable option for large land owners such as farmers. The recent decision for the UK to leave the European Union has begun discussions about the potential role

of rewilding, raising questions about whether the UK government will continue to subsidise farming (Begg, 2016). There is an opportunity for rewilding if either farmland is abandoned due to loss of income, or if rewilding is incentivised by a new form of subsidy (Government Select Committee, 2016). Currently, projects are predominantly led by NGOs, rather than being seen on large areas of farmland. NGOs are vital to push rewilding forwards due to their roles with land ownership, promotion and lobbying. Whilst the UK government has a duty for public interest, NGOs have a wider remit and can focus on ways to support wildlife and people.

This research looks at rewilding from the context of some of these NGOs, providing an insight into what challenges and opportunities they may face in moving forwards. Much of the existing literature aims to review other literature and some of the key projects undertaken. Whilst some of these articles highlight the challenges and opportunities for NGOs, who lead the delivery of rewilding, there has been no original research into the broader view of rewilding and the common problems NGOs may face.

The aim of this research was to explore what challenges and opportunities rewilding could pose for UK NGOs. In investigating this, a number of objectives were also set:

- To investigate what the definition rewilding means to different people

- To discuss the current projects and NGOs opinions of these

- To explore the different levels of rewilding available; from a 'pure' North American model, to smaller changes in terms of restoring natural processes

- To discuss which approaches would be most suitable for NGOs

- To look at the different perceptions of rewilding and how they could help or hinder the rewilding paradigm

- To explore the financial implications of rewilding, including agricultural subsidy

- To discuss legislation and policy changes that would support rewilding in the UK

A constructionist methodology was used to look at the multiple meanings and themes that participants could develop when thinking of rewilding. Participants were selected from a range of NGOs and a qualitative semi-structured interview approach was used. Participants were selected from organisations that were specifically mentioned by other participants as being relevant, as well as those currently connected to projects and one from a statutory agency with an interest in rewilding.

Thematic analysis was used to interpret the data and a number of themes developed. What rewilding means in the UK was a key theme and whilst participants did not agree on a definition, there were common thoughts on the role of natural processes. Participants highlighted that different groups had differing needs regarding a clear definition, and for some groups the broad idea currently in the public domain is sufficient. Whilst rewilding has often been considered as a tool in upland management, it was highlighted that rewilding can take place across a whole range of habitats. One of the strongest themes was around human intervention and control, and whether humans can ever stop interceding. The role of NGOs compared to other key stakeholders including farmers and the government, was also underlined as a theme. Finally the financial viability of rewilding as a land management option was considered.

In the final conclusions chapter, these themes are reviewed, linked to the aim and objectives of the research and recommendations are made for future study and actions for NGOs.

2. Literature Review

2.1 Introduction

The available literature demonstrates that rewilding is not as strongly recorded as other areas of environmental conservation, although there is a rapidly growing body of literature. Rewilding has been brought into mainstream discussion in the United Kingdom by the release of George Monbiot's book 'Feral' (Monbiot, 2013). This chapter touches upon the ideas popularised by Monbiot and his compatriots but focuses on scientific, peer reviewed articles to draw comparisons and conclusions.

2.2 Rewilding versus Traditional Conservation

Before this chapter addresses the many definitions of rewilding that are in the public and academic domain, it is first important to identify how it is different to traditional conservation methods. Figure A shows a diagram from a recent special publication of the journal ECOS, which focused on rewilding. This diagram was originally used for a presentation by Sir John Lawton (Lawton, 2016), and then by Helen Meech in ECOS (Meech, 2016). The graph shows how 'typical' nature reserves in the UK are managed, on a small scale with high intensity.

Figure A: The spectrum of protected areas scaled by size and management intensity (Lawton, 2016, Meech, 2016)
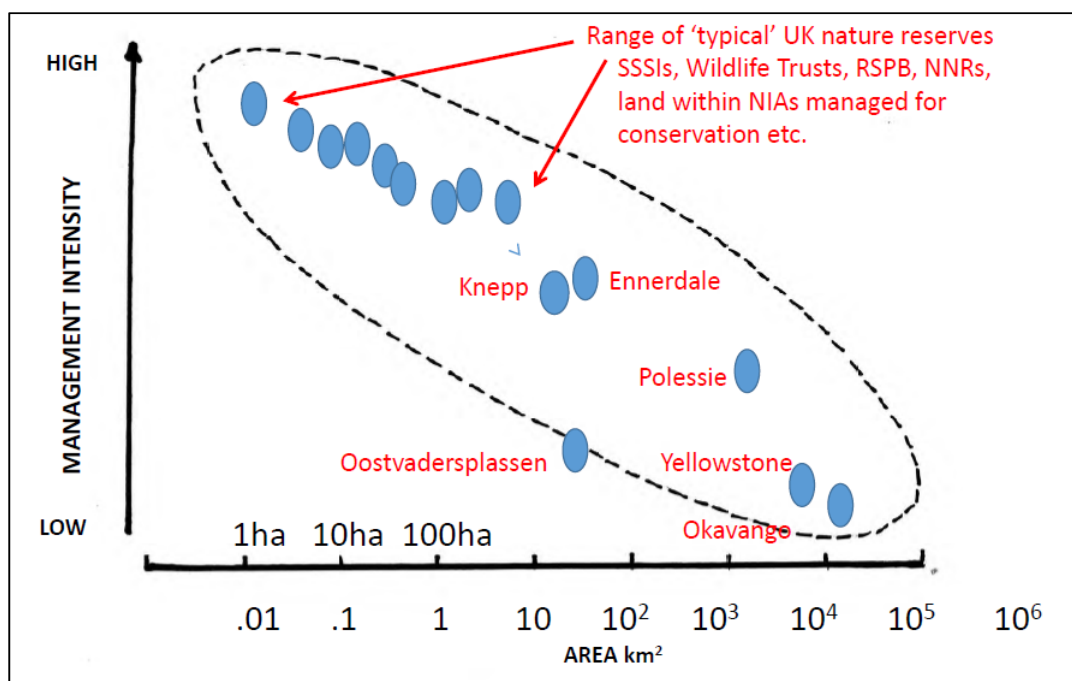
Many of the texts make reference to natural processes and Moorhouse and Sandom (2015) specifically address the issue of what natural is by using water vole conservation as an example. They outline how the population of water voles has declined by around 98% since the 1930s, and present three options to address this decline. Firstly, to do nothing causing populations to become further restricted. Secondly, to selectively remove mink who predate on the water vole, and finally, returning the water vole population to a 'natural' state, requiring habitat restoration, reintroductions of water vole and the complete removal of mink. They argue that any of these solutions could be described as natural and that there are problems with each one as they attempt to recreate a past environment or point in time. Rewilding, they claim, is the answer to this problem as it seeks to reinstate natural processes that have been lost through human intervention (Moorhouse and Sandom, 2015). This then allows the ecosystem to function within a landscape, and water vole populations to recover. This then largely removes the discussion about what natural is, because it is whatever is found within that particular system (Cambrian Wildwood, 2016). This contrasts with traditional conservation methods which use intervention to favour a habitat or species, with the aim of achieving a defined outcome such as 50 pairs of breeding bird (Moorhouse and Sandom, 2015, Cambrian Wildwood, 2016). It could be perceived that traditional conservation treats the symptoms of a decline in biodiversity, whilst rewilding addresses the cause.

The available literature is not entirely clear on what natural processes actually are. It assumes that readers will have some prior knowledge of this. The main example used to demonstrate reinstating natural processes is the reintroduction of grey wolves, as a keystone species in Yellowstone (Soule and Noss, 1998) This reintroduction impacted upon not only the prey of the wolf, but also on the habitats that prey grazed within. This led to an increase in beavers, and in turn improved the health of the rivers. The wolf also competed with coyote populations, leading to a decrease in rodent numbers, and increased carrion, benefitting scavengers (Cambrian Wildwood, 2016). The positively disproportionate effect caused by keystone species is known as a trophic cascade, defined by the Cambrian Wildwood project as,

"Large predators are seen as driving ecosystems by their interactions with other species, and the way their effects cascade through the whole ecosystem – the so-called 'trophic cascade'." (2016)

Natural processes that could be restored as part of rewilding include realigning rivers, reintroducing keystone species such a beaver, and blocking drainage ditches on upland bogs (Wildlife Trusts, 2016). It could be seen as allowing succession of vegetation to occur, moving towards a more wooded landscape, with natural disturbance reversing or halting this through storm or flood events, or through grazing (Whitbread, 2014).

2.3 The many definitions of rewilding

Despite the explanation provided above, there is confusion in the available texts as to what rewilding actually means. This could partly be because rewilding remains a relatively new concept still being explored and defined. Whilst the term was originally seen in print in 1990 (Foote), it has been used in a variety of ways covering a huge range of projects. There are however, some common themes within the literature and Figure B groups some of the definitions under headings relating to the role of large carnivores or reintroduced species, the role of humans, and the focus on restoring natural processes. The reader will probably be able to see large areas of crossover between these definitions, and this illustrates the complexity of defining the term.

Figure B - Definitions of rewilding

Definitions relating to reintroductions

"the practice of returning areas of land to a wild state, including the reintroduction of animal species that are no longer naturally found there" (Collins Dictionary online, 2012)

"the scientific argument for restoring big wilderness based on the regulatory roles of large predators," (Soule and Noss, 1998 p5)

"Rewilding, in my view, should involve reintroducing missing animals and plants, taking down the fences, blocking the drainage ditches, culling a few particularly invasive exotic species but otherwise standing back." (Monbiot, 2013b)

"Rewilding Europe thus combines two definitions of rewilding; productive land abandonment with species reintroduction." (Jorgensen, 2015 p486)

Definitions relating to the removal of human influence

"…where farming is withdrawn entirely and the natural succession of vegetation is allowed to take its course." (Hodder and Bullock, 2009 p38)

"Rewilding is the passive management of ecological succession with the goal of restoring natural ecosystem processes and reducing human control of landscapes." Navarro and Pereira (2012, p904)

Definitions relating to restoring natural processes

"…if someone is working to restore habitats, bring back living systems and repair ecological damage, then that's rewilding." (Rewilding Britain website, 2016)

"Take areas of land and bring them back into a more natural ecosystem" (Chris Packham via Rewilding Britain website 2016)

"… restoring species and ecosystems and allowing them to function within landscapes containing well-connected large core areas." (Moorhouse and Sandom, 2015 p47)

This complexity is addressed by Jorgensen (2014) in an article that suggests that rewilding is now so widely used it has become a 'plastic' word (p485), losing its' meaning. As Jorgensen (2014) discusses, the term has been adapted since its introduction by Soule and Noss (1998). Initially rewilding focused on the three 'C's'; carnivores or keystone species, core areas and corridors (Soule and Noss, 1998). This ideology has been reinforced by others (Foreman, 2004; Robinson, 2015, Fraser 2009). Below is a more detailed examination of how the three 'Cs' have been adapted into other theories and projects, and how they relate to rewilding in the UK.

2.3.1 Carnivores and reintroductions

The theory behind carnivore reintroductions has been well documented and looks at the effects of the 1995 reintroduction of the grey wolf (*Canis lupus*) in Yellowstone National Park (USA) (Soule and Noss, 1998). This created an 'atmosphere of fear' and had a disproportionately positive top down effect on the ecosystem (Terborgh, 1988, Terborgh *et al*, 1999), known as a trophic cascade (Townsend, 2016). As rewilding has evolved, reintroductions have also come to include other types of species. Pleistocene rewilding, (Donlan *et al* 2006), proposes not only the reintroduction of carnivores but expands to include the reintroduction of other species present in the Pleistocene by using proxy species such as the elephant to replace the mammoth (Donlan *et al* 2006). A summary of trophic rewilding and Pleistocene rewilding is provided in Figure C.

Figure C: Types of rewilding (taken from Sandom, 2016, p25)

- Trophic rewilding "is an ecological restoration strategy that uses species introductions to restore top-down trophic interactions and associated trophic cascades to promote self-regulating biodiverse ecosystems." (Svenning *et al*, 2015)

- Pleistocene rewilding: is the restoration of missing ecological functions and evolutionary potential lost as a result of the Pleistocene mega fauna extinction using extant conspecifics and related taxa. (Donlan, 2005)

- Passive rewilding: is where ecological processes can reassert themselves as human impacts lessen as a result of, for example, agriculture and land abandonment. (Lorimer *et al*, 2014)

Looking at a UK context, Brown *et al* (2011) discuss rewilding in Scotland, and not only consider the reintroduction of predators, but also of other locally extinct species such as boar and beaver (2011). Yorke (2016) notes that reintroductions have provoked the most excitement around rewilding, even if they are not a possibility. The notion of rewilding has almost been 'branded' as large carnivore reintroduction (Townsend, 2016), but the reality may be far removed from this. Figure D describes a current UK project at the Knepp Castle Estate in West Sussex. This has reintroduced grazing species to try and recreate Vera's theory of savanna as a climax

community (Vera, 2000), and has been described as naturalistic grazing, once again bringing the word natural into the description of rewilding.

The Rewilding Britain website (Rewilding Britain, 2016) lists projects that include the River Wandle in South London where no reintroductions have taken place at all. This progression represents a dilution of what rewilding originally meant in America (Jorgensen, 2014), but whether this matters is debatable (Meech, 2016).

Figure D: The Knepp Wildland Project

The Knepp Castle Estate in West Sussex is 1400 hectares of what was intensive arable farming (Knepp Wildland Project, 2016). Sir Charles Burrell who owns and manages the project had an ambition to recreate the former Repton landscape within one area of the estate, using grazing to deliver this (Greenway, 2011). This grazing then expanded across other areas of the estate, due to increasing financial losses (Burrell, 2016).

The project at Knepp uses a number of livestock to manage the landscape, including Tamworth pigs, Exmoor ponies, fallow deer and cattle. These all graze and disturb the ground in different ways, creating a mosaic of habitats (Burrell, 2016).

Wildlife at Knepp has benefitted from this naturalistic grazing regime and numbers of purple emperor butterfly, turtle dove and nightingales have increased. The site also has 13 species of bats (Burrell, 2016).

The project, in a lowland landscape, differs from some of the perceptions of rewilding, which has mainly been promoted as a tool for use in the uplands (Monbiot, 2013). The map below, in Figure B shows its location close to Gatwick in West Sussex.

Figure E: Location map of the Knepp Wildland Project (Knepp Wildland Project, 2016)
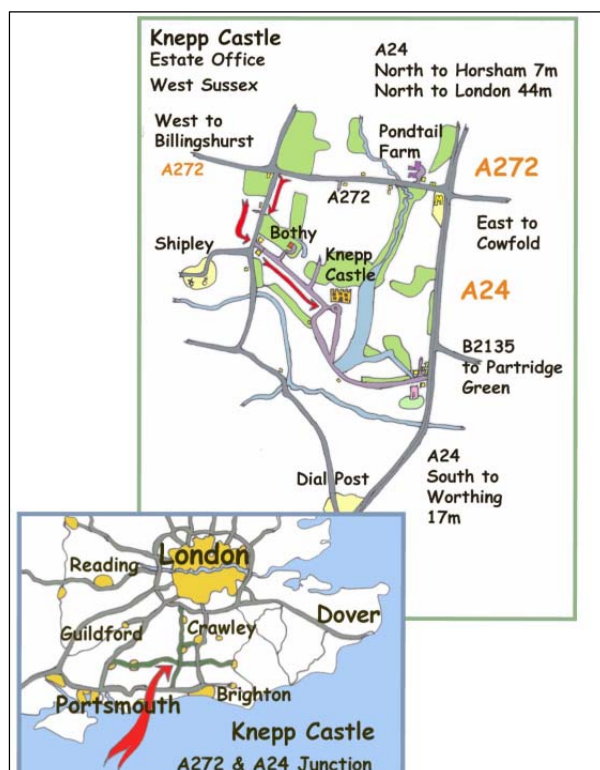
2.3.2 Core areas and the role of humans

Early literature relating to North America agrees it is essential for rewilding to be focused within a core area of land (Soule and Noss 1998, Donlan *et al* 2006). Current projects in the UK such as Wicken Fen and Wild Ennerdale, both led by the National Trust, demonstrate that this aspect of rewilding is accepted. The scale of the projects however is very different to the scale seen in North America, which includes the White River National Forest at 2.3 million acres (TEDBlog, 2013) or even in Europe in the Chernobyl Exclusion Zone which is 207,000 ha (Rewilding Europe, 2016). Wicken Fen is only 800ha (National Trust, 2009) and Wild Ennerdale is 4711ha (Browning, 2015). The availability of space in the UK is a key challenge for delivering rewilding, if it has to be free of human intervention, or if people play a diminishing role.

Figure F, demonstrates where rewilding fits on a scale of land management interventions, according to some authors. Here it is shown to be part of a land sparing agenda, where intensive agriculture in one area spares land for conservation in another. In a study by Phalan *et al* (2011), land sparing appeared to be a more promising way to protect wildlife. Navarro and Pereira (2012) support the idea that areas must be left or abandoned, land sharing, where land can meet multiple objectives, is not apparently compatible with this view (Navarro and Pereira, 2012). There is nowhere land sparing is more keenly displayed than in the Chernobyl Exclusion Zone in Ukraine and Belarus, where 207,000 ha have been abandoned by necessity, and hence, rewilded (Rewilding Europe, 2016). This is described as passive rewilding in Figure C on page 16.

Figure F: Where Rewilding fits with other land management interventions (adapted from Navarro and Pereira, 2012)
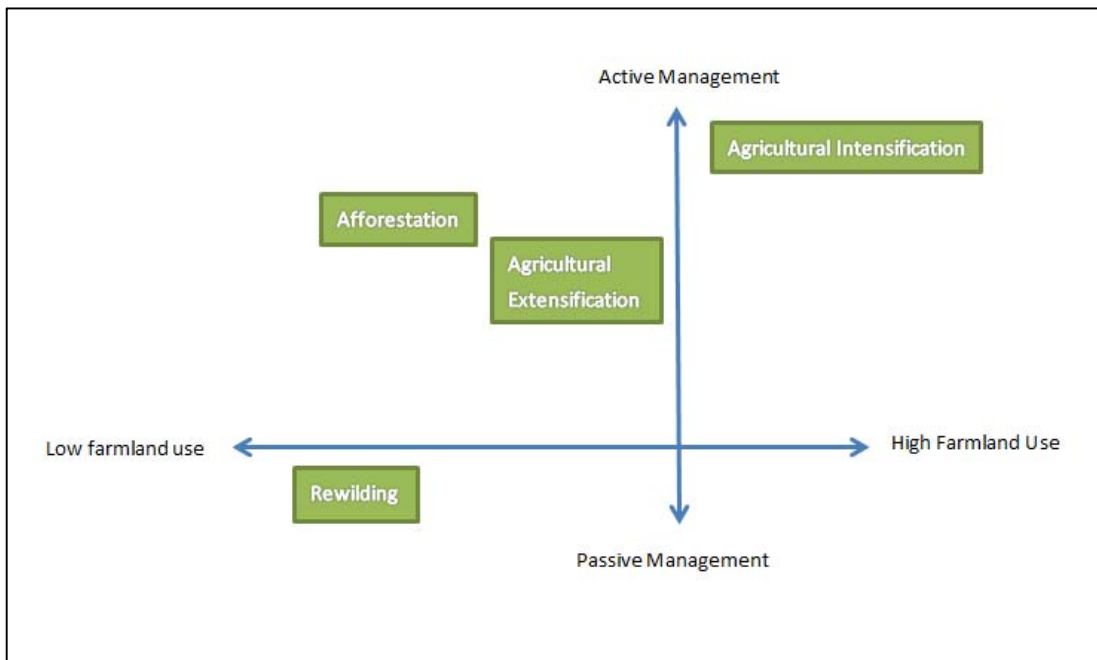
Navarro and Pereira (2012) try to portray the idea of abandoned agricultural land in a positive light whilst Robinson (2015) argues that 'abandonment' within agricultural circles poses a threat to food production. In the Pleistocene rewilding proposed for North America, it is argued that humans should be totally excluded (Donlan *et al,* 2006, Woods, 2007). The reality in the majority of current UK projects, such as Knepp and Wicken Fen is that a land sharing model is used. The purist form of rewilding (Soule and Noss, 1998, Donlan *et al*, 2006) would exclude these from being defined as 'rewilding'.

The project at Knepp also breaks the ideal of non-human involvement through culling (Greenway, Hodder and Bullock, 2009), going against ideas of allowing natural processes to take over (Soule and Noss, 1998). Within the UK, legislation relating to animal welfare and the management of livestock (RPA, 2016) means that legally allowing nature to take its course is not an option in this aspect of rewilding (Hodder and Bullock, 2009, Lorimer and Driessen, 2013, Greenway, 2011). There are also laws governing the reintroduction of species. This includes not only species in the wild, but also covers the reintroduction of carnivores with their prey in an

enclosure (DEFRA, 2012). These are challenges organisations would face if they wanted to use the purist rewilding model suggested by Soule and Noss (1998).

In addition to this there is also an ethical dilemma that Lorimer and Driessen (2013) discuss in relation to cattle, but one that can be applied to other livestock. They suggest domesticated animals now hold a place in the human conscience where they have to be looked after. A land manager not concerned with the health of their livestock would be considered a 'monster' (Lorimer & Driessen, 2013 p253). This is in comparison to wild deer herds that are seen roaming landscapes across Europe (Lorimer and Driessen, 2013). In a legal context the involvement of humans is not debated, and is accepted by authors, if only in the short term. What is more complex is where involvement is not subject to legal constraints. Monbiot (2013) explicitly talks about humans being able to stand back. Whilst rewilding is philosophically ecocentric, centred on nature as opposed to humans, (Townsend, 2016), papers appear to be in conflict with themselves, talking of human exclusion before continuing on to discuss human involvement (Moorhouse and Sandom, 2015, Monbiot, 2013). Carver (2016) notes that people see nature as constructed by humans, an anthropocentric approach, and Wain (2016) comments about "wanting rewilding on your own terms," (p1). Moorhouse and Sandom (2015) discuss natural water vole populations stating they were "self-sustaining without the need for human intervention" (p45) but continue to say that any new project would need to be "created by human action" (p45). Controlling fire (Navarro and Pereira, 2012) and reference to monitoring the effectiveness of projects (Hughes *et al*, 2011, Browning & Oakley, 2009, Kirby, 2009, Manning, 2009, Browning, 2015) demonstrate that human intervention is to be expected in projects within the UK (Hintz, 2007).

Hodder and Bullock (2009, p40) highlight in their research that, "None of the managers expressed an intention to give natural processes entirely free rein." Indeed Thomas (2009) notes that the "current distributions of species are largely shaped by human activities." whilst Fisher (unknown p 92) disagrees by stating "Lack of human disturbance is crucial for natural

processes." The literature raises an interesting question, not about whether humans could physically leave nature to take its course, but whether they can emotionally.

"The greatest impediment to rewilding is an unwillingness to imagine it." (Soule and Noss, 1998 p7). How do land managers decide when it is acceptable to intervene (Browning, 2015)? Kitchener (2012) argues that the method of species introduction, whether natural or human, does not matter, and hence invasives are to be expected; whilst Navarro and Pereira (2012) discuss how intervention may be necessary to manage invasive species. What is clear from this is again a lack of clarity on the definition, and also perhaps a lack of pragmatism that can be applied to the UK, although this has partly been addressed in recent literature (Meech, 2016, Yorke, 2016).

The pragmatism needed when exploring rewilding in the UK is partly because landscapes are currently dominated by agriculture (Monbiot, 2013). The disregard of some authors to this land use is a source of tension, and some supporters of rewilding are highly critical of agriculture. "This is our chance to reverse man's terrible destructive impact" (Monbiot, 2013b) Although Navarro and Pereira (2012) and Proenca *et al* (2012) look to a positive progression in using land, popular proponents such as Monbiot (2013) seem to be making an enemy of agriculture through describing landscapes as 'sheepwrecked' (Alexander, 2016). Where there has been success in rewilding in the UK it has because of a land sharing model. Land almost always has to be shared, demonstrated by the projects at Knepp (Greenway, 2011), Wicken Fen (National Trust, 2009) and Wild Ennerdale (Browning, 2015) where multiple land uses inclusive of farming and tourism, operate. This is where the role of Non-Governmental Organisations starts to become significant in two ways. Firstly, the practical delivery on their land at sites such as Wicken Fen, Wild Ennerdale (both National Trust) and Abernethy (RSPB). Secondly is the positive work that some NGOs have done in engaging communities and farming with rewilding. Yorke (2016) uses the work of the Vincent Wildlife Trust on the reintroduction of pine martens as a best practice exemplar.

Whilst ecologists agree that overgrazing of upland areas has had a detrimental impact on ecosystems (Gritten, 2015), alienating the farming community necessary to help in delivering any UK-based rewilding project on a grand scale, seems counterproductive, and has been described as a "bloodsport of demonising farmers," (Saunders, 2016 p70). Bignall and McCracken (2009) make the case for farming using evidence of biological richness in Ireland where some farming land has been abandoned. They are unique in the literature reviewed in their criticism of rewilding, stating that "re-wilding is not an option for most of Europe" (Bignall and McCracken, 2009, p49), which may well be the case if a purist model is followed.

2.3.3 Corridors

Island biogeographies, which explore how small isolated populations are more vulnerable to change, first became important in the 1960s (Simberloff *et al*, 1976). They recognised that habitats need to be connected to provide the best opportunities for wildlife to flourish (Soule and Noss, 1998). In England this has been promoted on a national scale by the Lawton Report (Lawton *et al,* 2010) which advocates habitats being more 'joined up' (Lawton *et al* 2010 p66). It is difficult to find specific references to corridors as a management technique and it is the least explored of the three 'C's. In the UK the Great Fen project is very clear about plans to connect with the surrounding landscape (Bowley, 2013), and at Knepp, land managers are hoping that wild boar will migrate into the reserve from nearby areas, adding to the species mix and drive further natural processes (Burrell & Tree, 2015), but for other projects this is not made explicit. The Lawton Report (Lawton *et al,* 2010) has brought this idea into the mainstream of all nature conservation, so corridors remain an important part of any project and are not contested within the rewilding literature.

2.4 Rewilding to a Timescale

There has been a significant debate about whether rewilding should focus on taking landscapes back to a previous point in history, especially in North America (Donlan *et al*, 2006, Rubenstein *et al*, 2006). Within the UK, Bullock (2009) argues against rewilding to a historic point, describing it as "an impossible goal and unnecessarily purist" (p20). Hodder and Bullock (2009)

support this view and underline how impossible it is to take a habitat back to an unknown state. Moorhouse and Sandom (2015) prefer an option that looks to the future, rather than back, stating that rewilding is not recreating a past environment. A contrasting view is given by Kitchener (2012) who examines rewilding Ireland to the Mesolithic, although he acknowledges the post-glacial landscape of Ireland as being herbivore dominated and attempting to go back could completely change the current diversity of mammals within that landscape (Kitchener 2012). Natural processes are now a key focus and Moorhouse and Sandom (2015) describe rewilding as the end point, allowing natural processes to take over. This aim is supported by projects at Knepp (Burrell and Tree, 2015, Greenway, 2011) and Oostvaardersplassen (Vera, 2009). In the UK at least, the debate has developed and mostly disregard rewilding to a previous point in history, so it will not be considered further in this review.

2.5 Practical opportunities and barriers

There are both practical and anthropological challenges associated with rewilding. One of the main opportunities running as a theme through the literature is the huge benefit to wildlife rewilding can provide. Whilst there are disagreements about what rewilding looks like, the benefits to biodiversity are acknowledged (Vera, 2009, Brown *et al*, 2011, Kitchener, 2012, Burrell and Tree, 2015, Ashmole, 2015, Browning, 2015, Soule and Noss, 1998). This runs from early projects in North America and the reintroduction of wolves, through to current projects in the UK, such as Knepp where purple emperor butterfly populations have increased dramatically (Burrell and Tree, 2015). Rewilding is of particular relevance for conservation in the UK at the moment, because of what is seen as a failure of traditional methods to deliver for wildlife. Monbiot (2015) quotes a figure of a 65% decline in wildlife in the uplands, echoed in the Lawton Report (Lawton *et al*, 2010) and rewilding is seen as a key way to address this decline in biodiversity (Monbiot,2015). Rewilding, however, is not seen as a panacea (Yorke, 2016) and traditional conservation will still be needed to manage certain habitats and species (Yorke, 2016, Sandom, 2016). Navarro and Pereira (2012) argue for rewilding, but note that as well as species gains, there can also be significant species losses, highlighting a possible challenge in interpreting the success of projects. People will also need to be open to 'surprises' (Browning,

2015 p8) such as these losses, flooding or animals behaving in unexpected ways (Kirby, 2009).

Greenway (2011) identifies that rewilding and naturalistic grazing are, as yet, still in their infancy and yet to be fully tested, and the need for more research is highlighted in a number of articles (Kirby, 2009, Manning, 2009, Brown *et al*, 2011, Noss, 2003). Moorhouse and Sandom (2015) use a lot of 'may' and 'might' and 'expected', highlighting further uncertainty about what results rewilding will bring. Kirby (2009) argues that rewilding should be trialed, despite the debates that continue about what it actually is, but suggests the phrase 'wilding' instead (p62). Kirby (2009) also notes that conservationists need to be clear about expectations from landscapes. Greenway (2011) identifies a policy barrier if land is designated for wildlife under a Site of Special Scientific Interest or Special Area of Conservation. For these sites there are prescriptive targets laid down by government agencies to achieve favourable conservation status. This means prescriptive management techniques, so using traditional methods, which would be at odds with process-led rewilding. The approach of designation has been criticised for not doing enough for wildlife, although it is acknowledged that the situation would be far worse without it (Lawton *et al*, 2010. Rewilding is seen as an answer to the continual decline in wildlife in the UK (Monbiot, 2015).

Public perception is discussed as both a barrier and opportunity. Browning and Oakley (2009) note the concerns of habitats becoming increasingly 'messy' (p57), supported by Taylor (2009) who also discusses the destructiveness of species such as red deer and wild boar, and additionally Carver (2016) addresses the 'dereliction' of landscapes (p5). Vera (2009) discusses shifting baseline syndrome where each generation resets and redefines what is 'natural' and many articles agree that it will take time for rewilding to become an accepted standard (Taylor, 2009, Vera, 2009). The ethical dilemma of animal welfare is a further concern and the project at Oostvaardersplassen identified that getting the support of people is key (Kirby, 2009, Taylor, 2009, Manning, 2009, Lorimer and Driessen, 2011, Greenway, 2011). Not only is the support of people highlighted, but also that of government, perhaps to start removing some of the red tape that could restrict ambitions (Gooden, 2016), such as the legal framework on reintroductions. Public perception also refers to safety and the perceived dangers posed by reintroduced

species such as wolf and lynx (Greenway, 2011, Navarro and Pereira, 2012), not only to livestock, but also to humans. Taylor (2009) argues for a more relaxed attitude to reintroductions, the weakness of which is a lack of understanding in how people engage with, and understand the natural environment.

Suggestions that ecosystem services could be used to help change public perception are made by a number of authors (Monbiot, 2015, Brown *et al*, 2011, Moorhouse and Sandom, 2015, Navarro and Pereira, 2012). These are the services and goods that nature can provide for humans, including flood relief, carbon sequestration, food and recreation (JNCC, 2016). A major drawback of this approach is that it has not yet been fully explored, although the Natural Capital Committee is researching this (UK government, 2016b). Burrell and Tree (2015) argue that economic gain and rewilding can run hand in hand, with several articles referencing a boom in tourism and education as an opportunity (Greenway, 2011, Brown *et al*, 2011, Hodder and Bullock, 2009) to play on the romanticism of the wild (Hodder and Bullock, 2009).

The financial implications of rewilding can also be a challenge when looking at agricultural subsidy. Monbiot (2015b) has discussed how agri-environment grants and CAP payments are the biggest threat to NGOs when considering rewilding projects. Would organisations such as the National Trust be willing to give up £11m from the Basic Payment Scheme and Stewardship funding to explore rewilding (Monbiot, 2015b)? The previous role of the Common Agricultural Policy in industrialisation and destruction of biodiversity is discussed by Bignall and McCracken (2009). Knepp has maintained agricultural subsidy payments, but has been threatened with payment withdrawal (Burrell and Tree, 2015) as the current management regime does not fit within the guidelines for payments (Taylor, 2009). Kirby (2009) acknowledges that there could be a role for government through policy change supporting rewilding, and Sutherland *et al* (2010) explore this further, suggesting that agricultural subsidy could undergo change. This debate has been brought into mainstream debate by the referendum in June 2016, where the voting population decided to leave the EU (Wheeler & Hunt, 2016). The National Trust has called for a review of agricultural subsidies (Begg, 2016) and the Environmental Audit

Committee invited comments on this topic until September 9 2016. One of the questions (shown in Figure G) specifically referred to rewilding as a tool for conservation. What is certain is that the current CAP will be reviewed in light of the Brexit vote, and that rewilding is very much part of this review. How organisations pay for rewilding is still under discussion (Meech, 2016).

Figure G - Question asked by the Environmental Audit Committee on an inquiry into the future of the natural environment in the light of the EU Referendum (UK Government, 2016)

What are the future risks and opportunities to innovative land practices, such as managed rewilding? What role can rewilding play in conservation and restoration of habitats and wildlife? What evidence is there to support the incentivising of such schemes in any new land management policies?

As highlighted above, there has been some reluctance from the farming community to embrace rewilding and so it is not surprising that the majority of current UK projects are run by NGOs. Wicken Fen (National Trust, 2009) and Wild Ennerdale (Browning, 2015) are managed by the National Trust, Carrifran by the Wildwood Group and the Borders Forest Trust (Ashmole, 2016), Abernethy by the RSPB (RSPB, 2016), pine marten reintroductions by the Vincent Wildlife Trust (Vincent Wildlife Trust, 2016) and the River Wandle by the Wandle Trust (Pike *et al*, 2014). Knepp is unusual, being owned and managed by a private individual. As already mentioned there are some key roles for NGOs in delivering and promoting rewilding, but these have not been explored in detail within the available literature.

2.6 Conclusion and Research question

This literature review has examined the existing scientific research as well as touching on some media views of rewilding. There are distinctions between how rewilding has taken shape in North America and the UK, largely relating to the availability of human-free space within the UK landscape. The review highlighted some of the projects in the UK to compare with North America. The current political environment of the UK means rewilding is higher on the agenda than ever before, and further literature is being produced at a rapid rate. Broadly the review

looked at the pitfalls associated with a term that has become over used, creating complexity and confusion over what it covers. There was also a discussion about the opportunities and challenges in a broader context.

There is clearly a need for a discussion around the definition of rewilding, and also, possibly more importantly, whether the definition actually matters. The current research has focused mainly around academic opinions and some of the current projects. With most projects being NGO led, there is an opportunity for research to focus on how NGOs define rewilding and the opportunities and challenges for them, including human control, funding and perceptions, as well as successful delivery. There are also gaps in knowledge around how the government could support rewilding and NGOs. Considering the Environmental Audit Committee inquiry, this is a pertinent question. This research will focus around these questions, and aim to provide some answers as to how NGOs can move a rewilding agenda forwards.

3. Methodology

3.1 Theoretical research approach

The aim of the research was to explore the opportunities and challenges of rewilding from the point of view of UK NGOs. As such it aimed to gather opinions from a variety of participants with connections to NGOs. The study is therefore based on a constructionist perspective and looks to understand rewilding from the point of view of NGOs, rather than gleaning any particular truth or facts. This epistemology advocates the view that people construct meaning from their experiences and hence can lead to multiple meanings. This approach embraces the fact that people will each have their own interpretation of the world around them, and hence no one single truth can be defined (Newing, 2011),

> "The constructionist stance maintains that different people may construct meaning in different ways, even in relation to the same phenomenon" (Feast & Melles 2010, p4)

The two most commonly used strategies for research are an inductive technique and a deductive technique. A deductive technique begins with a null hypothesis and then the research strategy is designed to test this (Newing, 2011). An inductive technique is much more open, and has no specific hypothesis, but instead focuses on a broader question or several questions around a topic (Newing, 2011), such as those described in the introduction to this research. As the aim was to explore and understand the challenges and opportunities around rewilding an inductive approach was chosen. The exploration of a topic and the open technique of an inductive approach lend themselves to a qualitative research method.

3.1 Research Method

Newing (2011) notes that qualitative interviews are "good at exploring people's perceptions of an issue in depth," (p56). Whilst the literature review highlighted some opportunities and challenges, these had not been explored within the context of NGOs, and so there was an open question about the relevance of existing challenges and opportunities. Creswell (2003) describes that,

"Qualitative research is exploratory and is useful when the researcher does not know the important variables to examine." (p22)

This was certainly the case in this study and hence why a qualitative approach was chosen, using a semi-structured interview technique. Newing (2011) states that semi-structured interviews,

"… are most appropriate when you know what topics you wish to cover but do not know enough about likely responses to design a set of precise questions that would be needed for a questionnaire." (p102).

This technique also allowed for the interviewer to ask additional follow up questions, comment and prompt, in a way that a questionnaire does not. It enabled a conversation to flow more naturally which fits with the constructionist epistemology in allowing participants to use their own experiences within the dialogue.

To analyse the data, thematic analysis was used. Braun & Clarke (2006) discuss how thematic analysis falls within one of two broad camps of qualitative analysis. It can be "applied across a range of theoretical and epistemological approaches" (Braun & Clarke, 2006, p78) and therefore provides a great degree of flexibility. The other lends itself to specific theoretical positions such as conversation analysis, which are more limited in their application (Braun & Clarke, 2006). "Thematic analysis is a method for identifying, analysing and reporting patterns (themes) within data." (Braun & Clarke, 2006 p79). It lends itself to a constructionist epistemology (Braun & Clarke, 2006) by allowing the researcher to look for multiple themes or meanings.

3.2 The Participants

As the research was specifically focused on rewilding and NGOs, any participant needed to have knowledge regarding both areas, therefore non-probability sampling was used. A combination of approaches within non-probability samplings were taken advantage of to select interviewees. Initially convenience sampling was used as the researcher had pre-existing contacts within NGOs who were connected with and had knowledge of rewilding. This is also an example of targeted sampling, where participants were selected for their knowledge of the topic.

An absolute minimum target of eight participants was set, and in the final study ten were interviewed. Five participants were chosen through pre-existing contact with the researcher. One was chosen through specific targeting of an NGO, who then suggested a suitable person to talk to. The definition of what the term NGO covers was not defined by the researcher. Instead each participant was asked about who might be relevant and this was used as a guide to potential interviewees. This method was used directly as four participants were selected through chain referral using a snowball sampling technique (Newing, 2011), where the names and contact details were given to the researcher by an existing participant. Two of the participants were currently involved with a project that had been described as rewilding during the review of literature on the topic. One of the participants had connections with more than one NGO. Two of the participants were not currently involved with an NGO, of these, one had been previously involved, and the other was working for a statutory agency and had knowledge of government policy and the role of NGOs. A summary of the participants is provided in Table 1.

Table 1: Summary of participants and organisations

Participant	Organisation description
A – an internal consultant	Large land owning NGO
B – a senior internal consultant	Large land owning NGO
C – a land manager on a site	Large land owning NGO, participant was involved with a specific project
D – a consultant on a site	Privately owned project
E – a specialist advisor	Non-land owning advisory NGO
F – a senior internal consultant	Land owning NGO with a specific habitat focus
G – a director of the organisation	Non-land owning NGO with advisory role connected to farming
H – a senior adviser	Statutory Agency
I – a senior adviser	Land owning NGO with a species focus
J – a senior adviser and senior member of the boards of trustees	Connected to two land owning NGOs, one with a broad focus and one with a species focus

In addition to the participants listed above, three further people or organisations were approached as part of the study. Two of these were additional NGOs that were not included in the final study, and one was from an NGO who was already represented. Unfortunately one of these organisations was unable to participate due to previous commitments. Contact had been made and an interview provisionally agreed with the other two, but a suitable date and time could not be found. Whilst it was regrettable that these additional interviews did not happen, relatively little new information was being gained after the eighth interview, indicating that the research had probably reached a saturation point (Newing, 2011). Hence, the data would probably have not added any significant additional themes or meanings. .

3.3 Ethics

An ethics form was submitted to Birkbeck College as the research involved interviewing individuals. An information sheet was given to each participant, sent by email to allow review before signing hard copies at the interview. It was agreed that participants, and the organisations they worked for would remain anonymous for the purposes of the study. After the interviews were complete and the results were being written up, it became clear that the anonymity provided also limited some of the interpretation. Hopefully the results and discussion provide enough context about the participants and NGOs involved. If the research study was conducted again the researcher would consider at least being able to name the organisations who agreed to take part. Participant J actively encouraged the researcher to directly quote them, but by this point the rest involved had signed and agreed to be interviewed anonymously, so to have just one named interviewee would have had little benefit. Interview recordings were stored on a secure, password protected device, as were the resulting transcripts. Codes were used for participants and the organisations they worked for.

3.5 Interviews

A semi-structured interview technique was used and a copy of the interview template can be found in Appendix A. The questions used the interview funnel approach (Newing, 2011),

beginning with broad overarching questions and then focusing down. As the research

progressed it was noted that often the later questions were not required, as participants had

already answered these within the previous narrative. Some of the participants were previously

known to the researcher through her work. This could have introduced bias into the data by

them being more relaxed than other participants, or perhaps more wary of being completely

open. Participants may have assumed that the opinions of the researcher mirrored the opinions

of their (the researchers) organisation, or that there was an inherent level of understanding, so

they did not need to explain what they meant by certain terms. Because of the role of the

researcher within conservation, participants may have felt more open to talking about

biodiversity gains, and also being critical of certain groups, such as farmers, who often clash

with conservationists. To try and minimise this, the same set of questions were used, although

they were some minor adaptations for different participants. The researcher had used their role

as a way to contact participants, and it may have been better to leave this fact out when

arranging interviews, but they may not have been as effective as contacting senior

representatives in organisations.

Interviews were held in a number of locations, previously agreed with the participant and usually

involved the researcher travelling to the participant. One interview was conducted over the

phone. This did not demonstrate best practice as neither interviewer nor participant could look

for visual cues during the interview meaning there were more instances of talking across each

other. This was however, the only way this interview could be conducted. The software used to

record the telephone interview was also more complex to use and specific time points could not

easily be referred to in subsequent analysis. This added time to transcribing and then re-

listening to this particular data. One participant asked to see the questions before the interview

date, and whilst they then admitted to having only looked at them once several weeks before

the interview, they did have prior knowledge of the topics and hence time to 'prepare' answers.

Whilst this may have actually meant fuller answers to questions, it does bias that particular

interview. During interviews, subjects often stopped to take time to think about if there was any

more relevant information, obviously the point of the semi-structured interview is to get answers

to the questions, and it tends to be that what first comes into the head of participants is the most relevant or important point to them. By have sight of questions in advance, the participant can filter results, so the picture may not be as representative of those 'top of head' thoughts. One interview was conducted in a park, and was interrupted twice by the gardening team with loud equipment affecting the flow of the interview and thoughts of the participant.

Following each interview, the content was transcribed, taking around four hours each with individual interviews lasting between forty and eighty minutes. Whilst transcription was a lengthy process within the research, it made analysis of the data much easier. An example of a transcribed interview is provided in appendix B. The only change to the process would be to include more time stamps within transcriptions, so relevant quotes and themes could be found again more easily.

3.6 Analysis of the data

The reasons for using thematic analysis have already been mentioned. Whilst its predominant use is in psychology, the flexibility of approach means it can be adapted to suit any qualitative research (Braun & Clarke, 2006), however, this has led to the approach being applied in an inconsistent way, which in turn generated criticism surrounding the scientific rigor of this approach. Braun and Clarke (2006) identify six stages in thematic analysis and a summary is provided in Table 2. Their paper creates a process that can easily be replicated and followed, providing a useful tool for researchers, especially those who may not have advanced skills in analysis (Braun and Clarke, 2006). It should be noted that the six stages will not usually take place in a linear manner, with analysis often shifting forwards and backwards in an iterative way.

Table 2 - The six stages of Thematic Analysis (Braun and Clarke, 2006 p 87)

Stage	Description
Familiarisation with the data	Transcribing and reading the data, beginning to note down ideas
Generating codes	Coding features across the whole data set, and then collating data relevant to each code
Searching for themes	Collating the codes into potential themes and then gathering data relevant to each theme
Reviewing themes	Checking if these themes work for the coded sections and then across the whole data set
Defining and naming themes	Ongoing analysis to define the themes and look at the story the analysis tells. Generating definitions for each theme
Producing a report	Selection of 'vivid' examples to support the discussion. Relating these back to the initial research questions, and literature.

To carry out analysis of the data, each interview transcript was printed, double spaced with large margins and read through several times. During this process initial ideas were noted down on post-it notes, so they could be used and moved around at a later point once codes were generated. A list of the codes applied, with examples is provided in Appendix C. The transcripts were then actively read again and the codes applied. During this process additional codes were created, and some being merged where there was significant cross over. During the process of coding, some themes began to become quite clear and repeated across the majority of the data set, this provided a starting point for the themes that were to become important in the discussion. Other themes only became obvious after the whole data set had been coded; these are examined later within the discussion. A thematic map was created to show these themes (see Appendix D). The final stages of analysis involved drawing all the coded extracts within themes together and creating a cohesive account of the interviews and how they answered the research question.

In the analysis of the data a number of questions were considered in line with the process

suggested by Braun and Clarke (2006). The first of these relates to what is included as a theme.

Broadly, the research split into ten themes although there were significant crossovers and links

in certain areas, for example the link between financial opportunities for tourism and the cultural

role of tourism within ecosystem services. The importance of individual themes was not simply

defined by how often they were mentioned, although this was the case for certain elements,

such as the definition of rewilding being around natural processes. Some of the theme selection

related to its significance surrounding recommendations that could be made to NGOs. For

example, a theme only mentioned by several participants that could have a much wider

relevance for NGOs taking rewilding forwards. A theme's significance lay with its ability to be

useful, rather than it being already known by all participants. Braun and Clarke (2006) also

highlight knowing what sort of epistemology is being used, as well as whether the analysis

focuses on one particular area of the data. The constructionist approach used in the research

meant an examination of the whole data set, looking for multiple themes and meanings. Whilst a

set of research questions had been identified, the research also wanted to examine any further

insights and gain a deeper understanding of rewilding within the context of NGOs, hence the

study and analysis used an inductive approach. Finally Braun and Clarke (2006) ask whether

the analysis is looking for explicit or hidden meanings from the data. Semantic analysis simply

looks at what has been said by each participant and involves a progression from the coded data

and a description of the themes, to an interpretation of this data and its significance. Latent

analysis then attempts to go beyond this to analyse the hidden meanings behind the data. As

there was no exploration into the deep meaning behind why participants had particular views,

the analysis was undertaken at a semantic level.

3.7 Limitations

Some of the limitations relating to how interviews were conducted have already been discussed,

further limitations are described below. There can be a bias created by the relationship of the

interviewee to the research question. By only being able to interview one person from an NGO

in the majority of cases, the research only contained their view, which may, or may have not,

reflected the view of the whole organisation. During the interviews respondents were asked about whether their organisation had a policy on rewilding, to see if there was a disparity between their views, this was an attempt to reduce the bias between personal and organizational opinions. Still being in its infancy, there was a lack of consistent policy or positions statements, so whilst the individuals were representing a specific organization, some elements of their own opinion will have been included in responses.

In the case of this study the researcher had their own views about rewilding and this was noted as a way in which the research could be biased. Newing (2011, p11) asks, "How can you retain your objectivity as a scientist if you are passionate about a particular outcome?" During the interview process, the necessity to remain as neutral as possible had to be balanced between creating a relationship with each participant, to place them at ease and gather useful data. The ability to do this improved during the process of interviews, and it was more difficult to achieve with some participants who were already known to the researcher. As such this study cannot be viewed as being 100% objective, but Newing (2011) identifies that no research can ever be completely objective, and that as long as the researcher is aware of their own bias and prejudice, then they can be managed.

Three interviews had taken place before the referendum on whether the UK should remain or leave the European Union. Whilst these touched on the outcome, the interviews after this featured Brexit more heavily. A decision was made not to go back to the first three participants and ask an additional direct question around Brexit, because this may have produced a skewed amount of information about it that may not have been present during the interview process. How often Brexit was mentioned by the other participants could suggest that it would have been more prevalent if all interviews had taken place after the 23rd June vote. Where Brexit is mentioned in the discussion, it has been noted that not all participants had the same information at time of interview, to reduce any bias.

When doing thematic analysis Braun and Clarke (2006) identify a number of limitations that can be encountered during the process. They warn against failing to actually analyse the data at all, potentially through using questions as themes. During the process of analysis whilst the questions were kept in the mind of the researcher a broader range of codes and themes was developed to look for patterns and contrasts within the data set (Braun and Clarke, 2006). Another limitation of thematic analysis could be where the themes are not fully defined and there is significant crossover or inconsistency (Braun and Clarke, 2006).. During the process of analysis it was difficult to extract separate themes, due to there being so many links between different areas, the researcher had to rewrite a thematic map three times and change coding to come to a final set of themes. Good thematic analysis should not assume that the views of participants indicate exactly what their view is, people may alter or adjust what they say in an interview situation (Braun and Clarke, 2006). This is why a number of participants were interviewed, so more reliable data could be obtained. The study could have been enhanced by further interviews, although it was felt a saturation point had been reached.

3.8 Chapter Summary

The chosen methodology of an inductive constructionist approach that used qualitative semi-structured interviews, followed by thematic analysis, was considered to be the best way to discover the opportunities and challenges of rewilding from NGOs. There were some limitations within the research, but these have been reduced as much as possible so as not to bias the final results. The analysis provided a number of themes that were backed up by the existing literature, as well as finding some new links.

4. Results and Discussion

The data from interviews was analysed using thematic analysis. From this five themes emerged as discussed below. The first theme was the definition of rewilding and why this was important to different stakeholders. This provides the biggest challenge for NGOs externally. The second theme was around the ability of people to relinquish control, and it became clear that this was the most important challenge internally. The third theme and most important opportunity was around increasing biodiversity. The fourth theme focused on the specific roles NGOs could play, particularly in comparison to government and farmers. Finally there was a theme around the financial challenges and opportunities NGOs could face when delivering rewilding.

4.1 The definition of rewilding

The biggest challenge for rewilding was deciding what it actually means. During analysis it became incredibly difficult to extract specific and distinct themes relating to the definition because it is so contested. Some participants expressed a view that they did not want rewilding to just become a debate about a definition and Participant A noted, "we can all get too bogged down in what it means." However, all of the participants did debate it within their interviews. Many of the challenges expressed were only significant because they contradicted part of a definition. The research reinforced that there is no single way to define rewilding. Participants wanted to move beyond this issue and into actually delivering rewilding, but the lack of clarity and variety of meanings seemed to hold back the potential of what could be achieved. Within the theme of the definition, there were a number of sub- themes which are explored more fully below.

4.1.1 What is rewilding?

Whilst there was not a single definition that participants used, there were some common aspects. Participants were all asked what rewilding meant to them and common themes emerged. All the participants highlighted that there are many different definitions, but all agreed rewilding was about restoring natural processes.

> "rewilding is about restoring natural processes. Urrr, which is quite simple but it's not just about reintroducing big beasts. Urrrr, which is the key thing and what it means to a lots of people." (Participant I)

None of the participants defined what they meant by natural processes. A google search for the term provided the following definition;

> "A process existing in or produced by nature (rather than by the intent of human beings). For example, volcanic activity and tidal activities." (yourdictionary.com, 2016)

This definition is supported by the literature research and Participant A used the following example to illustrate what rewilding a marine environment could look like,

> "we could have a really wild coast functioning naturally and eroding and moving and sand moving and that kind of stuff. Dune systems not fixed and moving."

Rewilding was described as "letting nature do its thing." (Participant D) and this differed from traditional conservation methods, seen as prescriptive and interventionist.

> "the site-based specific targeted product, based on where the product is a species or habitat, for example. Often quite a small site where there is often quite intensive management. To keep that particular feature into perpetuity at one end of the spectrum." (Participant B)

Over half described rewilding as operating on a sliding scale or across different levels. The above quote suggests that traditional conservation sits at one end of a spectrum and Participants G and J, who both held senior or trustee positions in their respective NGOs, brought the diagram shown in the literature review (Figure A, p12), to emphasise this point. Four of the participants made specific reference to a form described as 'pure' rewilding, closely aligned to the three C's initially proposed in North America (Soule and Noss, 1998), and which sits at the opposite end of the spectrum to traditional conservation.

Participants were asked about whether their organisation had a policy on rewilding, but at the time of interview none did. Whilst they were all representing NGOs it should be assumed that

their own views on rewilding guided their responses, especially when there was no internal agreement on how rewilding was or will be approached in their organisation.

"We don't have a formal rewilding policy. We are looking at it at the moment and we probably will do, in the not too distant future" (Participant I)

Participants were asked how much they thought a definition mattered, and the responses were extremely variable. Participant B described the word as 'tainted' twice in their interview, preferring the term 'wilding'. It was interesting to note that Participant A also used this adaptation to the term, and both were connected to the same land-owning NGO, indicating some joined up thinking at that organisation. The rationale behind this term was the possible link that could be made between the suffix 're', and attempts to revert sites back in time, as opposed to looking forwards. Some participants thought that having an open definition was helpful to prevent polarising the debate, especially when working with stakeholders. Whilst some discussed how too many definitions could create confusion. "I think it's suitably open….you can interpret it in lots of different ways." (Participant F)

As the interviews progressed it became clear that the requirements of stakeholder groups were different in their need to define and understand rewilding. This partly came from what groups believe rewilding means and is discussed below.

4.1.2 The external perception of rewilding

During interviews it became clear that participants had two different definitions in their minds. One personal or internal to their NGO, and another definition they thought common outside their organisation and in the public realm. The relative importance of the definition varied for different stakeholders. In discussing external stakeholders, participants specifically referenced the media, farmers and large land owners, government, the general public and members of NGOs.

Participants identified some key themes they thought of as common external perceptions:

- Reintroduction of large carnivores

- Loss of agricultural production

- Operates over a large area

- Focused within upland areas

These perceptions followed what participants had described as 'pure' rewilding, at one end of the conservation spectrum.

> "the way it has been laid out in the public domain has been very much around the lynx and wolves and bears and stuff of that nature. The sort of, to characterize it slightly unfairly, the Monbiot school or rewilding." (Participant I)

When asked about the meaning of rewilding, all the participants made reference to large carnivore reintroductions, and highlighted the belief that external perceptions, particularly the media, are focused around this facet of rewilding. During interviews three large carnivore species were mentioned. Wolves and bears were only briefly discussed by under half of the participants, and only lynx reintroduction was identified as a possibility in the near future. Participant E suggested that lynx were more acceptable in comparison to wolves,

> "Something like lynx is far more acceptable than wolves. Wolves have a very deep rooted.. in our psyche… it's a demonised creature."

Whilst the external perception of rewilding had a focus around carnivore reintroductions, in direct comparison to the perception portrayed in the public realm, this was not considered a top priority for NGOs. It was acknowledged that large carnivore reintroduction is difficult, or impossible to realistically deliver, based upon the current objections and fear, as well as size and quality of available habitat.

> "Reintroductions are contentious, but in some ways they are a bit of a distraction as well. It's the first thing people focus on. Everyone was talking about wolves and lynx. But for me rewilding is about people living in nature everywhere." (Participant F)

Reintroductions of other keystone species such as pine marten and beaver were considered more viable. There was still concern from several participants about what happens when

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reintroductions are not properly established or managed and Participant G commented on the beaver release in Scotland which they believed had been badly handled,

"So, beavers, um I think they should be introduced but they will need to be managed, but because there's this sort of lack of political will to do anything about them because no one wants to stick their head above the parapet it's kind of getting the worst of both worlds for both the beavers and the famers. So I think that's a good example of um, where things have not gone, gone well."

In the interviews there was no specific question about media perceptions, but as participants discussed the definition of rewilding, this was mentioned by over half of those taking part. Whilst a clear definition for the purposes of the media was not emphasised as being important, participants did highlight where organisations and projects had been more successful. There was a recognition that whilst the media can get the message about rewilding to a larger audience, it is not a suitable tool for engagement;

"there are NGOs out there, that just do this, just talk about rewilding in the media. And issue very snappy media soundbites .....I don't see that as being particularly helpful to the debates…" (Participant I)

Participants acknowledged that the media tends to focus on the more extreme views. Some mentioned George Monbiot, who actively encourages debate and sits at the purer end of the spectrum. Participants were divided about how useful his viewpoint is, some saying it brought debate to the mainstream, and others saying it had forced people into camps, especially the farming community. Participant I from a species focused NGO was particularly wary about projects going wrong and the damage this could do,

"If you get a series of projects that go wrong, almost for whatever reason, then you run the risk of undermining the concept as a whole."

This view could be because negative experiences that this organisation may have had in the past in the past with the media or stakeholders. The National Trust and RSPB have faced the

media spotlight in recent years over policies on land acquisition (Hope, 2016) and conservation (Carrington, 2013) respectively.

In comparison to the media, participants recognised a real challenge with the definition of rewilding when talking with government. Those participants who had previously worked closely with government agencies, highlighted a problem with how many different NGOs exist, and how many different voices they can present.

> "… you've got all these charities and they all say different things. And you can see that from a minister's point of view, it's very frustrating." (Participant J)

Participant J, who had experience of liaising with statutory agencies, echoed the thoughts shared in several interviews that the government often ignores advice,

> "… there is a general tendency in the government to ignore advice it doesn't want to hear. In fact to damn right go against it, never mind the evidence for this sort of stuff."

Whether the government chooses to ignore advice deliberately to further other aims cannot be confirmed within the research, but it would certainly exacerbate the problem if ministers and government bodies cannot hear one clear voice telling the story of rewilding. This voice also needs to be clear about the benefit to people, as government bodies have a duty to this. This raises a question for NGOs about how they lobby parliament with a unified voice, whilst still meeting their own objectives. There is a risk that if they remain staunchly in their own camps, then no voice will be heard, "… the fragmentation of the conservation movement, is a bit of a worry." (Participant J)

Half of those who talked about farmers and their relationship to rewilding, believed that for this specific group the definition was important. Participant E highlighted that currently, "A lot of them probably don't know what it is." If farmers rely on the media for opinions of rewilding then the message they receive may be skewed, and several participants thought the definition should be avoided when speaking with the farming community. "You probably wouldn't use the term right

now, if you wanted to get stuff done." (Participant I). As suggested by Participant I, perhaps the term does not need to be used at all, and successful models exist to get stakeholder agreement.

"Vincent Wildlife Trust have done a fabulous job to ensure that they have sat like we are now around dining tables talking about the project before any martens went anywhere near it, so the local community were absolutely, even if they weren't one hundred percent behind the project, they understood it and understood what the risks and benefits might be to them, before it kicked off. So I think that um, that's an example of when it goes right…" (Participant G)

In having a definition that is open to interpretation, and having a number of voices all suggesting different options, it could be difficult for the farming community to understand what rewilding is and how it will play out across the landscape. This is a risk for NGOs trying to deliver rewilding, and needing the support of the farming community. Nearly all of the participants talked about the perceptions and lobbying voice of the National Farmers Union (NFU) as a major challenge for rewilding projects.

"the NFU are going to be key in this, if they are not happy, it will be a real struggle, you sort of need farmers in the area to say 'yes we will do this,' and then the NFU won't be able to say anything else." (Participant H)

The research demonstrated that NGOs did not think the general public or their members would have an adverse reaction, and that the term could be helpful, even if the real meaning is unclear.

"Public support is probably the easier win for them (NGOs). Most people in the general public aren't actually bothered what happens in wildlife." (Participant E)

Where participants had direct dealings with the public, they were overall reported as being positive experiences. Participants also commented on some of the positive work that has been done in engaging members of the public and stakeholders, and highlighted this engagement as an opportunity for NGOs to promote rewilding. Some participants also highlighted it as a way to

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deliver another aim, which was to rewild people. Participant D, who already leads groups looking at a project said,

"Yes, absolutely everyone who comes is just like 'wow', by what's going on here, and I think people go away being quite inspired."

Membership was regarded as a positive factor for NGOs, both in terms of finance and the demographic of the membership. Several participants commented on challenges. It was acknowledged that a wide member base would have a wide range of opinions,

".. you are never going to get them all to agree on everything. I suspect most of them would be naturally quite drawn to the idea." (Participant I)

Those participants who were currently working within a membership NGO were not overly concerned about membership opposition, as the quote above suggests. Participant J, who was involved on the board of trustees of an NGO highlighted it as more of an issue, perhaps because they were more closely connected to discussions about membership at a high level,

"it's a question of educating and taking people on a journey and if there was sufficient opposition, you probably wouldn't be able to do it in a membership organisation."

During interviews whilst nearly all recipients highlighted perceptions, both internal and external as a potential issue or challenge, there were positive examples of where proactive engagement with different groups had led to the successful delivery of rewilding projects.

"We took on a comms manager… a comms officer, who is now still here and that's seven or eight years later. And I cannot conceive of a time when we wouldn't have him because he has been able to not just put out opposing views of their arguments, but actually puts the positives out there." (Participant C)

Broadly, participants thought that the perception of rewilding from the public realm was useful when talking to the general public and members, because it does sound exciting. Two participants described carnivore reintroductions as 'sexy' and noted that people find them 'exciting', "When you see one quite close, it is spectacular," (Participant E). Farmers and the

government are wary of the 'pure' rewilding perception, and are then confused when aspects such as carnivore reintroduction are not part of the equation. This demonstrates that NGOs do need a cohesive definition for communicating with certain groups.

4.1.3 The reality of rewilding – where it can happen

Within organisations, the idea of what rewilding actually meant, was much broader. There was a direct connection between whether participants used the idea of a sliding scale or 'pure' rewilding and the size of space needed. Those who talked about a sliding scale, were less concerned with the size of project, and were satisfied it could happen anywhere. They were more enthusiastic about the opportunities that rewilding could present. When 'pure' rewilding was talked about, the lack of space within the UK was the main constraint to not being able to deliver, and participants made more reference to it only being achievable in large upland areas. Participant I from a species-focused NGO was more wedded to the purer end of the spectrum, perhaps because in smaller areas they felt they would need to intervene.

> "You are probably unlikely to be running any big rewilding project in Surrey. Or something like that, so a big limitation in the whole thing is where you can physically do it in the UK, just because it is a crowded island."

Several participants discussed the idea of a bottom-up approach, where rewilding of the soil is an alternative direction of travel.

> "It's been in the news a lot in the last year or two, about only having something like 100 harvests left in our soil, if you had 'pop-up' Knepps everywhere, reconditioning the soil, even if it's just for 15 or 20 years as a project… and then you take it back to the soil and start farming again. You've helped that soil recover." (Participant D)

This could be a huge opportunity to work with the farming community to deliver wildlife benefits as well as improving soil condition.

Half of the participants touched on rewilding at sea. There was additional complexity discussed here, especially relating to law, as beyond the twelve nautical mile limit, the seas are classed as

a common, and international cooperation would be needed to rewild them. Whilst NGOs will probably play a role in rewilding the sea, it is not clear yet what this role will be and so it is not considered further in the research. Participant J noted that, "…the law is different, the management is different."

Participants noted some charities have competing aims. The National Trust was highlighted as an example, with contending interests covering cultural landscapes, history and nature conservation. Four of the participants specifically talked about cultural parkland landscapes such as those designed by Capability Brown and Humphry Repton, and how rewilding fits in these places. These were participants A, D, H and F, coming from a variety of organisations, with different focuses. This highlights that although under half of participants noted it was relevant, it is still widely seen as a challenge. Participant H specifically commented on the role of the National Trust because of its broader focus,

> "I think the National Trust have a big role to play, because how does this play out with Capability Brown landscape's for example, what is the relationship there?"

Participants had no personal problem with changes to these landscapes, "I'd rather we left all of them to move a little bit more freely" (Participant H), but did acknowledge that changes would manifest and the cultural significance was still an important feature. Participant A was discussing the project at Knepp that began in the Repton Park and stating,

> "You can get wilder and brilliant natural processes, but at some point you can't potentially trash all those other significances."

In addition to designed landscapes, there was discussion around the cultural significance of landscapes such as the Lake District. Most participants talked about the potential for rewilding within upland environments. They highlighted a number of challenges, including the perceptions of visitors who romanticise these areas as open, and the opinions of farmers who see themselves as stewards of these landscapes, as well as it being integral to their livelihood. Several participants discussed why the benefits may be easier to achieve within a lowland or wetland environment.

"…at the end of the day within our working lifetimes we're not going to see a restoration of natural processes there, compared with if we thought boldly about large areas of wild land, or potentially wild lands, in the lowlands." (Participant B)

"… wetlands are relatively easy to recreate, other stuff is much harder." (Participant J)

This highlights that the participants in the study, who all have a background in environmental conservation or ecology, recognise the challenges from other stakeholders in the rewilding debate. At no point during the study did any participant suggest that rewilding would be the only option for land management in the UK. There was respect for other significances and land uses being relevant and necessary; Participant A described rewilding as not being a "panacea". Designed and cultural landscapes are defined by their human intervention, but have changed over time and three participants discussed that there could be an opportunity for parkland landscapes to be rewilded whilst still maintaining the essence of the design. When talking about Knepp, participants with knowledge of the project highlighted that this is possible,

"I think we can do it, you don't have to maintain this modern view of some of our historic parks in terms of what they should look like." (Participant A)

However, they also acknowledge the need for consultation with stakeholders to affect this change.

4.1.4 The role of humans in rewilding

Once a rewilding project is underway, there is a set of challenges around when and if humans should intervene. There was recognition from over half of the participants that there could be an initial input of interventionist management to kick start projects.

"there might be some kickstarts and stuff needed at the beginning to take some of the constraints off natural processes." (Participant A)

When projects were running several participants talked about a legal necessity to intervene because of laws relating to animal welfare,

"it would be against the law in Britain…. If they were starving or starved and certainly if its
water buffalo or Galloway cattle… or anything else.. you would have to have them TB
tested and they would have to be ear-tagged and all that stuff." (Participant J)

This extended to a deeper moral responsibility for the welfare of animals, as well as the external perceptions if animals were allowed to suffer. Oosvaardersplassen was specifically mentioned where they have had to intervene because of public perception.

The results have already touched upon the idea of scale and location, and the literature review highlighted that the scale of current projects in the UK is much smaller than those in other countries, especially North America. This creates a challenge as the areas available for rewilding are not large enough to sustain all of the natural processes required to support sustainable populations of species. This was described by participants as a "functional ecological unit". Whilst not specifically mentioned by all participants, there was an acknowledgement that rewilding could operate on different scales, but might never be able to be free of human intervention.

"…it will always require some human intervention, given that it's not actually a full-scale
ecological unit." (Participant J)

Culling is one example of where humans play a role, acting as the apex predator in an environment. Participant D who was involved with a project stated that,

"I don't think it would be quite like a wolf would be doing it, but ultimately we are the top
level predator here."

Over half of the participants thought that human interceding would be a feature of rewilding in the UK. This was recognised as a challenge purely around people's understanding of what rewilding was. Rewilding could actually be considered as more viable by other groups if this acceptance of human intervention was shared more widely. And provides some contrast to the popularised views of protagonists like George Monbiot.

4.2 Being able to let go of control

As discussed above, the role humans can play in rewilding is still not clearly defined. There is an additional challenge for NGOs that centres around rewilding being an ecocentric approach, as opposed to other management methods which are anthropocentric or people focused. Participant F specifically defined rewilding as ecocentric and described the shift in mindset still needed to consider it in this way. This theme came through quite strongly in the research and whilst participants expressed a wish to be hands off, the reality of their discourse did not match this.

Most participants acknowledged the role of traditional conservation, which was described as interventionist, site focused and having set targets or end points. Half of those involved in the study referenced the need to measure outcomes and the complexity this brings because rewilding projects had no fixed end point. Participant F went a step further and focused on the difficulty some organisations would have in relinquishing control, as it would mean admitting that traditional management carried out until this point had not really worked. They felt that their organisation had a more ecocentric approach and were therefore already finding it easier to deliver rewilding. They discussed that other land owning NGOs would need to shift how success was measured and these organisations had spent, "50 years of fighting for criteria that now look less relevant," and were "heavily invested in the designation approach."
They concluded by adding that,

> "Institutions become embedded with delivering certain outcomes and KPIs (key performance indicators), and it's very difficult to break away from those." (Participant F)

Although most participants recognised that the traditional approach alone had not succeeded in delivering for nature, they acknowledged that there was still a role for it within the UK. Participant I from a species focused NGO noted that, "… the concept of rewilding is seen as just another thing in the conservation toolkit." They were more reserved about the role of rewilding in delivering conservation benefits, and stated that "in our view rewilding is not just stepping away." This could be because of the challenge that rewilding presents in terms of species loss.

At Knepp, gains in species such as purple emperor, nightingale and turtle dove were celebrated. However, there have also been species losses and declines, as the habitats change and no longer suit certain species. Over half of the participants recognised that species loss would be a challenge in moving to an ecocentric approach. Four specifically discussed that this would be more of a challenge, or even unacceptable for species focused NGOs. Participant E from an advisory NGO with an interest in farming made this observation about the RSPB owned site Abernethy,

> "(the management) caused pine martens to increase, and pine martens like capercaillie eggs for breakfast… so they're now having an impact on the capercaillie…what do you do there?"

Because the RSPB has a focus around birds it could create a complex dilemma and participant F said "They have had issues when they have gone to Knepp. I don't get the sense they are very keen on it."

One participant also noted the role of members of species focused NGOs as being more adverse to rewilding, although this was not a widely shared view, "I think some of the members of those organisations will not be very happy with rewilding." (Participant H)

Participants thought that NGOs with a broader focus would be more accepting of diminished control and standing back, highlighted by Participant H,

> "I also think for the National Trust, because they don't have specific species focus, there is the greater acceptance of change and dynamic systems than in some parts of other organisations."

Finally, one participant highlighted that there will always be an element of human control

> "It's a human thing. We like to control our environment, we like to control other people, we like to control animals. Its dominant alpha species behaviour." (Participant E)

This supports the statement from Soule and Noss that "The greatest impediment to rewilding is an unwillingness to imagine it." (1998 p7).

Participant D, who was actively involved with a current project, commented that even people who are applying rewilding can sometimes be tempted to interfere,

"whenever he gets itchy fingers he just sits on his hands, and just waits to see and often things will just sort themselves out."

The ability for humans, even ecologists, to really let go of control ran through all of the interviews, and most participants had a limit of what they thought could be achieved. This issue is the biggest challenge internally that NGOs will face.

4.3 The biodiversity benefits of rewilding

"I'm completely biased. It seems to me that there are absolutely enormous biodiversity benefits. Knepp is a small example. There is an explosion of wildlife. Just from a wildlife point of view it seems undeniably beneficial." Participant F

Improving biodiversity was the main opportunity and purpose of rewilding discussed during interviews. All participants made reference to the positive benefits it would have on the natural environment. Participant D talked about the importance of the intrinsic value of nature, and Participant B talked about it as an opportunity to improve land management. Biodiversity was mentioned explicitly by around half of the participants, "to save nature" (Participant I), and over half of the participants commented on the failings of the current system, "I think the current conservation model has failed" (Participant F).

The role of rewilding to create landscapes resilient to climate change was also discussed by around half of the participants. As climate change effects temperature there has been a northwards shift in the range of a number of species (Hickling *et al*, 2006). Providing habitats for these species to move into will be important for the longevity of these species. Although one participant stated that just rewilding will not be enough in the UK to halt the decline in biodiversity. The role of nature reserves in protecting biodiversity, could be expanded through the delivery of rewilding, which also supports the Lawton Report recommendations of "bigger,

better, more and joined" (Lawton *et al*, 2010 p15). Participant B made an observation about allowing natural processes to create resilience through providing an evolutionary theatre. They argued that opportunities for species need to be created for them to adapt to change, so they are more resilient to future changes. This returns to the argument around control, where managers of sites may have to accept losses of species that no longer have suitable evolutionary traits to survive a changed climate. However, when anthropogenic climate change is the cause of these losses it creates a complex dilemma. The majority of issues facing the natural environment have been created by human involvement through global climate changes, intensification of farming and habitat destruction and fragmentation. Intervening has been viewed as the way to halt this decline, and to alter to a more hands off method requires a leap of faith.

4.4 The role of key stakeholders

4.4.1 The roles of NGOs

All participants were asked which NGOs were relevant to the rewilding agenda, some NGOs were then also mentioned during interviews but not specifically in response to this question. Those that were mentioned were:

- National Trust (all participants)

- RSPB (all participants)

- Wildlife Trusts (most participants)

- Woodland Trust (half of participants)

- Lynx UK Trust

- Butterfly Conservation

- Bug Life

- Rewilding Britain

- Heritage Lottery Fund

- Bat Conservation Trust

- Farming and Wildlife Advisory Group

- Countryside Landowners Association

- World Wildlife Fund

Participants were subsequently asked what role they thought NGOs would play in rewilding. All participants reported that a key role for NGOs was actually doing rewilding. Some participants talked about this explicitly, whilst for others it became apparent during the dialogue that this was assumed. "From a positive perspective, the NGOs role is about practical delivery." (Participant I)

Forming partnerships was mentioned by two participants during the course of interviews, but not explicitly in relation to the question. It seems that these opportunities are either assumed to be business as usual, or perhaps not as relevant to the discussion for NGOs. The remit of different organisations had an impact on how questions were addressed and answered. For example, Participant G from an advisory NGO thought that land owning NGOs needed to be "looking at some of the benefits of rewilding and promoting those." Whilst Participant H from a statutory agency focused much more on lobbying government,

> "I think there is a lobbying role. Definitely, I think there is a big role to play to tell the story about why we (the government) would want to do it."

Participants highlighted the need for more research to support the rewilding argument and again Participant H commented on this,

> "I think that evidence is what's needed. And although we've got some of it, we almost need a third party to audit it…. Both in terms of demonstrating the impact on biodiversity, demonstrating that it can make money, at least, and be viable."

This emphasises the important role and opportunity that NGOs have to play in telling the story of rewilding to government.

One participant recognised that NGOs with different areas of focus could play different roles,

"I think the land owning NGOs could start doing some rewilding and some of the more

species specific NGOs could um, perhaps, um do a bit more to, um, help share the

evidence base, or help advocate the model of rewilding." (Participant G)

Some participants also highlighted the role of NGOs in connecting people to rewilding through

their work. Participant G from an advisory NGO thought that whilst actually doing rewilding was

the first objective, the second was to,

"engage people with the idea of rewilding, so ummm, to get people excited about

rewilding and to see it as a positive um, alternative approach to traditional nature

conservation, and to understand the benefits and also what it can deliver to them

personally."

There was also a discussion about the governance of NGOs in comparison to private

landowners and how this could be a challenge. Several participants thought that NGOs could

take a long time to make decisions, or would be unable to deliver rewilding because of the

complexity in governance structures, and a lack of understanding from higher levels of

management. Participant D highlighted this by stating that an obstacle would be,

"the red tape that committees and layers of bureaucracy bring to projects."

4.4.2 The role of NGOs and government – compatible or conflicting?

Participants were asked about what they thought the role for the government could be. Several

noted that the role of NGOs in rewilding would be greater than the role of government. Whilst

governments could support rewilding projects through legislation and policy instruments, the

current projects that exist have been launched without this support. Two participants stated that

government's role would always be restricted as it has to act in the interest of people, it cannot

act altruistically simply for nature. Several participants were concerned about the changing role

of Natural England, which has moved from a body actively involved in research and working

with NGOs, to one with its' hands tied. It is no longer able to communicate information and

research as it had done ten years ago, and is now mainly concerned with administering the

grant schemes that exist. All participants thought that the government had a role to play, although some did not think they would take up this role. Participant J who had experience of liaising with statutory agencies said,

"I think government has more of a role to play, I don't think the present government gives a bugger about it to be honest."

Two participants specifically talked about the role devolved governments could play, highlighting that the Scottish government is more open to rewilding. "There is a lot more positivity in Scotland than in England." (Participant E)

The different roles that could be played by the government included changing agricultural subsidy to support rewilding projects, licensing of activities including rewilding, changing legislation around welfare to support reintroductions, and supporting rewilding projects through payments for ecosystem services. The challenge faced by NGOs is that they do not see the government stepping up to deliver these roles in the near future.

4.4.3 The role of the farming community

Two participants discussed the role of farmers to provide food, and a reluctance to stop their stewardship of the countryside. There is also still a need for farmers to produce food, and a few participants explicitly stated this.

"Knepp probably isn't sustainable for the whole of southern England if we want to produce food. If our aim is to produce food, we need to decide where," (Participant E)

It was noted that, as with other parts of society, some farmers would be more open to rewilding than others. "Some will be totally opposed to it, and others will be fairly receptive." (Participant E)

Most participants talked about the role of farming within rewilding, although they were not specifically asked about it. Generally, participants were critical of modern farming, and the system of subsidy.

> "(people think) … farmers have maintained this beautiful countryside… when actually its wrecked." (Participant F).

Most participants referenced that many upland farms are currently marginal and only supported by agricultural subsidy. Some expressed their disbelief at why farmers are subsidised, but other rural businesses are not. "Why do we do that for farmers and not rural plumbers… What is so special about farmers?" (Participant J)

The perception of rewilding to the farming community comes into focus again here, as the public definition led by George Monbiot (2013) would have large areas of the uplands taken out of production. In reality participants discussed that relatively small areas would actually need to be rewilded, to deliver biodiversity gains, "we wouldn't need to take more than 5% of the land out of agricultural production," (Participant J). And many participants talked about Knepp where the farm is still making money and producing food.

> "This point about viable farm businesses is really important because we're not going to be able to make the case of this stuff unless the people owning the land are keen to do it." (Participant H)

Three interviews took place before the UK held a referendum vote on whether or not to remain in the EU. After the vote the UK government announced an inquiry into farm subsidies as mentioned in the literature review. The effects of Brexit are still unknown and this came across during interviews. Some participants highlighted this as a potential opportunity as there is now a chance for agricultural subsidy to be reformed. Participant J identified that government will be "having to think through value for money in what the state subsidises." Some participants acknowledged the effectiveness of groups like the National Farmers Union at lobbying government, and their concern that although the government will have to reform subsidy as a result of Brexit, they may choose not to.

"I think there is going to be a big argument about it and we will have strong voices from multiple sides of the argument." (Participant H)

In Europe there are many areas which have been accidentally rewilded where farms have no longer been viable. "That's common across quite a lot of Europe, that we haven't seen here in the UK," (Participant E). Half of the participants thought that Brexit could provide an opportunity for rewilding, by creating an environment where some marginal small farms could no longer afford to run. The role of farmers in relation to NGOs delivering rewilding came across in the interviews in three parts. Firstly in a challenge for an organisation like the National Trust which has a huge number of tenant farmers, and will need them to be on board with rewilding if they are to deliver it successfully. Secondly, there is a challenge in the collective lobbying potential of farmers, particularly the NFU and Countryside Landowners Association (CLA). Thirdly, an opportunity where farmers could become partners in projects with multiple landowners and expand areas over which rewilding can happen..

4.5 Rewilding as a cost effective land management tool

4.5.1 Ecosystem Services

Participants were not specifically asked about the role of ecosystem services or natural capital within interviews. However all talked about the opportunities that rewilding presents for delivering ecosystem services. There were two opportunities identified. Firstly, by identifying how rewilding supports people and society through ecosystem services, it could become more relevant to the wider population. Secondly, that there may come a time when payments are made for ecosystem services, and it could be a policy tool through which rewilding can be delivered. JNCC (2016) describe ecosystem services as "the benefits people obtain from ecosystems." These are split into four areas and a summary of these is provided in Figure H.

Figure H: A summary of ecosystem services (Metro Vancouver, 2016)

Looking at these benefits could make it more palatable to both government and farmers, and presents an opportunity to create alternative income streams. The most talked about benefit was the regulating services of flood alleviation, with all participants specifically discussing this. This may be explained by the wet winters seen recently in the UK and the widespread flooding.

> "Cockermouth gets regularly devastatingly flooded. In exactly the same rainstorm Ennerdale water went up like two or three inches and that was it, so that's natural flood management…" (Participant J)

It was also thought rewilding could deliver improved water quality and carbon sequestration. Some of the participants talked about these in detail and provided examples where rewilding delivers these alongside other services;

> "the benefits are clearly there for wildlife, because the bare peat is useless, whereas the Golden Plover and all the other creatures that live on bog, high moorland bog, benefit.

The walkers benefit, because it's much more pleasant, in fact walking across bare peat is horrible, so the walkers benefit. So the local bed and breakfast places and cafes and restaurants benefit. United Utilities benefit because the water is clean,…. cleaner. The rivers run off less quickly, the streams run off less quickly so there is no lowland flooding." (Participant J)

Rewilding could also make local communities more resilient to climate change. Not only would rewilding provide a buffer against the increased storminess that led to flooding but improved upland habitats could store more carbon and reduce future climate change effects.

Cultural ecosystem services were the next most talked about within the interviews. Tourism opportunities were highlighted as having a number of benefits, which will be explored in more detail below. Under the heading of ecosystem services is the benefit to people in terms of health and wellbeing. This connects back to the definition where participants talked about 'rewilding people' as well as rewilding landscapes.

"And there could be societal benefits if another part of the definition of rewilding is about rewilding us and our minds. And just making sure that we experience the full expression of what countryside should, and could, be like." Participant B

Provisioning and supporting services were the least discussed during interviews. Whilst participants noted the role of large grazing animals and having a sustainable farming model, only half of those interviewed made a direct link between grazing stock and meat production. This could be because those who were spoken to had a background in environmental conservation, so were focused on habitat benefits rather than production. Two participants discussed the role of soil conservation as a supporting service. One of these looked at it in some detail and highlighted it as an alternative way of looking at rewilding - as a bottom up approach, "An alternative is restoration of natural processes to do with mud." (Participant B)

4.5.2 Short term costs versus long term sustainability

A challenge in terms of finance was in establishing projects, either through land acquisition, or initial intervention to get projects going. This was discussed by over half the participants. Participant C who was involved with a project highlighted land acquisition as the biggest barrier. They talked about the ambition to extend their project and how this had been prevented due to land prices, although they acknowledged this would probably go in cycles and the project may be able to buy further land in the future.

> "when we started… in the first ten years, we more than doubled the size of (the project). In the last six years we've added 10 or maybe 20 hectares. It's because the agricultural climate changed all of a sudden."

Participant G from an advisory NGO talked about the "lack of funding, positive funding to kick-start rewilding projects." Only Participant A talked specifically about additional costs in terms of facilitating with stakeholders and engagement, although Participant C mentioned the employment of a communications officer to help manage their project. This seemed to be a more hidden cost that NGOs will need to consider.

Most participants agreed that in the long term the management costs would be lower compared with traditional conservation methods,

> "so actually it can be a whole lot cheaper than traditional nature conservation and intervention, so yeah, bar an initial acquisition, potentially there could be very little cost in terms of actually doing stuff on the ground." (Participant A)

Whilst participants agreed that finance was a necessary consideration, they acknowledged that it was not as significant as some of the other barriers such as perceptions of the farming community, "I don't think cost is the thing driving it." (Participant F)

4.5.3 Tourism opportunities

Tourism was mentioned by all the participants as a financial opportunity, both in terms of directly funding NGOs to deliver work, but also as an incentive for other land owners to move from more intensive production to a different model. National Parks have encouraged this idea for many years through Sustainability Funds (Brecon Beacons NPA, 2016), so it is not a new idea.

The Isle of Mull was specifically mentioned as a model for tourism by over half the participants. Figures between £5m - £7m per annum from tourism related income were quoted, and attributed to the reintroduction of white-tailed eagle. The opportunity was used an example of what could be achieved in terms of tourism, and the focus was the reintroduced species. So, whilst it was widely agreed that large scale reintroductions were the least likely area of rewilding for NGOs to deliver, they seemed to be a key part of the financial model that was used as an opportunity. Added to this are the comments from several participants about a saturation point in such projects

> "there is a huge potential for tourism but I think with, um, while these things are kind of novel um, that's going to be the case but the more rewilding happens the less novelty there'll be and perhaps the potential for ecotourism reduces a little bit. So I think we need to look at those cultural services as part of the overall mix, rather than just rely on them too heavily." (Participant A)

Participant I disagreed with this using red kite reintroduction as an example of projects that have kept people interested at multiple locations across the UK. Participants I and F also highlighted how reintroductions have had a disproportionately positive influence on local businesses by being used as a symbol for the area. Participant F made specific reference to pine martens saying they were used, "as a hook, even though the chance of seeing them is practically zero."
Participant H addressed the issue around tourism by saying that they thought only five big projects in England would be needed to saturate the market. They argued that rewilding should not be limited by how many tourism opportunities are available,

> "I think that's a limit that we shouldn't be restricted by. I think it's great and really important to get people out there. But that's not going to achieve the ambition that I have for this work."

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NGOs would be wise to consider this before using tourism as the driver for any projects.

4.5.4 Other financial opportunities

The project at Knepp was highlighted because of reduced inputs to the site and a number of other income streams have been identified including letting farm buildings, letting cottages, glamping, safaris and organic meat production. However, several participants acknowledged that not all farms would have the availability of buildings, space or other resources to follow this model. Participants noted that having multiple funding streams was a benefit in case of financial difficulty, particularly the case considering no security around the future of agricultural subsidy. Agricultural subsidy was seen as a double edged sword for rewilding. The current reality is that rewilding does not fit the existing subsidy model. Participant J spoke about Knepp, "because they are really wild it is losing money now because they've done too much nature conservation restoration." Participant C who is involved with a project talked about applying for Higher Level Stewardship and how complex it could be,

> "it's making sure that our agreement is reflective of what we are trying to do so that we can comply."

Participant F offered a different viewpoint that perhaps NGOs should be less reliant on grant funding and expressed their disappointment with NGOs,

> "I think NGOs should ignore grants. I'm not saying they shouldn't go for them, but I think they should ignore them in terms of what is right to do… We match what we do to the grant money and that happens across the whole sector."

Brexit was highlighted as a possible opportunity. This could either be for agricultural subsidy to be reformed and to take account of rewilding, although it was already discussed that participants had little hope of the current government doing this. Alternatively, participants believed that any new scheme would not provide the same level of funding as the current scheme and not be able to support farmers to the same extent. This would push marginal farming to be uneconomic and large areas of land could be accidentally rewilded through abandonment as Participant J notes,

"the marginal areas which I think could very easily go out of business and, you know as viable farms, and government won't pay for them. Where you have some actually quite substantially rewilded areas, where people have just abandoned them."

5. Conclusion and recommendations

5.1 Conclusion

The research looked at the challenges and opportunities for NGOs through semi-structured interviews with participants who were directly involved with, or had knowledge of NGOs. Through these interviews a number of themes around the opportunities and challenges for NGOs were highlighted. Whilst those interviewed agreed that rewilding was a good thing and could help to support biodiversity, they acknowledged it was not a panacea and that there was still a role for more traditional site conservation. This was particularly true for those NGOs with a focus on species conservation, who also struggled with the concept of having no human intervention and the challenge that loss of species would bring both internally and externally.

The biggest challenge for NGOs externally was around the lack of clarity that the term rewilding provides, and when this lack of clarity becomes important. There was a common voice around rewilding being about the restoration of natural processes, although the mechanisms to achieve this restoration were much more contested. Participants acknowledged the role of keystone species in delivering 'pure' hands off rewilding, but from this research it would be very unlikely to happen in the UK, due to the size of area required and the population size. Participants thought that the external perceptions of rewilding from the general public and NGO members, was of little to no concern, because of either the apathy for wildlife, or the excitement of something new. Within these groups, the definition of rewilding was less consequential than within the farming community and government. This is important for NGOs to acknowledge so they can plan how they communicate with different groups, and is the difference between the success and failure of projects. With the farming community being important stakeholders in terms of landownership and their voice, and the government being key in creating policy and funding to support rewilding - a clearer definition of what rewilding looks like is vital. The research highlighted the frustration that government ministers can feel with so many different wildlife groups having different voices and arguing between themselves. The media perception of rewilding was at the 'pure' end of the spectrum, and it was noted that they would be more likely

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to pick up stories that appeal to readers, such as species reintroductions. Participants did note that positive early engagement could provide positive media opportunities, but these would tend to be centred around the more exciting facets of rewilding such as reintroductions, as opposed to soils.

There was not one type of rewilding that participants highlighted as being the best or worst. Large scale carnivore reintroductions were seen as less possible, but it was the approach of project delivery that was more important, rather than the physical action on site. Participants highlighted that the benefits of rewilding to biodiversity should be the focus.

Internally the biggest threat was an inability of NGOs to relinquish control and try rewilding. There were so many quotes connected to controlling at least some aspect of the process, that the real benefits of rewilding may never be seen because NGOs are too afraid to truly allow natural processes to take over.

The biggest opportunity that participants thought rewilding provided was an alternative to the traditional model to deliver biodiversity gains. Projects such as the Knepp Castle Estate, which was held up as positive example, show promising trends for wildlife, as well as providing other benefits.

Alongside clear gains for wildlife, another opportunity for NGOs was promoting the success of projects and getting people engaged with nature. This was also a way in which challenges associated with perceptions of rewilding could be turned into opportunities. Again, participants highlighted projects that had gone particularly well. At the Knepp Castle Estate the ownership and decision making largely resting with one person, was seen as a huge advantage in being able to deliver rewilding, this was in direct comparison with the red tape that NGOs have to face in terms of trustees, committees and members. The Vincent Wildllife Trust's pine marten reintroduction was held up as an example of best practice in stakeholder engagement, in contrast to Lynx UK Trust's media headline seeking approach.

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The role of NGOs and government was seen as quite different, with NGOs having a bigger focus on wildlife, whilst government is purely focused on public benefit. There were opportunities highlighted where rewilding could be used to deliver ecosystem services including regulating flooding and improving water quality, providing food and delivering cultural benefits such as tourism. Ecosystem services could be a way for NGOs to promote the benefits of rewilding to a wider audience, including governments, and could create a mechanism whereby they receive payments for ecosystem services, though this is yet to be defined. Governments could have a key role to play in terms of licensing reintroductions, and as agricultural subsidy is reformed because of Brexit, there is an opportunity for subsidy to support NGOs to deliver rewilding. There was however, no positivity from participants about this actually happening.

Finance presents both challenges and opportunities. For NGOs who are already paying for conservation, moving to a rewilding model should cost less in the long term. In the short term however, there may be land acquisition or initial investments needed to start projects. The reliance of some NGOs on government subsidy may have to change to deliver rewilding, and there will need to be an acceptance of this. Whilst tourism provides a useful model in some areas, like the process of rewilding, it is not a panacea. Opportunities need to be carefully considered and any financial model should not solely be based on tourism.

5.2 Recommendations

5.2.1

A working definition is agreed on by NGOs. This definition should focus on the process of rewilding and what it is trying to achieve in terms of reinstating natural processes, and not the mechanisms that are used to achieve this. This definition is then used where necessary to engage with groups and provide a common terminology.

5.2.2

The big NGOs relevant to rewilding agree on a discourse for lobbying government and farmers. There needs to be one clear, outward facing voice of rewilding from NGOs, so other key groups can easily understand the aims. If NGOs continue to have multiple voices there is a risk that no one will be heard.

5.2.3

A financial model that examines all the available options for land is utilised, and does not simply focus on one aspect such as tourism or subsidy.

5.2.4

Stakeholders are consulted at every point of the process and brought with NGOs to deliver rewilding.

5.2.5

Further research is undertaken to look at:

• The challenges and opportunities of rewilding at sea

• External reviews of the existing projects to include financial models and winner and loser species.

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Appendices

Appendix A - Interview Schedule

(Consent form and explanation of study. Recording device on.)

1. Can you start by just telling me your name and a bit about your current role and organisation?

2. If I use the term 'traditional conservation,' what does it mean to you?

3. What does rewilding mean to you?

4. When we talk about NGOs – who would you include in that definition?

5. What role do you think NGOs will play in rewilding of Britain?

6. What role do you think the UK government could play? Could any current policies support rewilding? What future policies could be useful?

7. Does your organisation currently have a policy on rewilding?

8. Are you aware of any current rewilding projects? (PROMPT Knepp, Carrifran, Wicken Fen – info sheet on each)

9. How well do these fit with your vision of rewilding?

10. Do you know what works or doesn't work in those particular projects?

11. Is there anything you would change about these current projects?

12. In your opinion, what are the opportunities that rewilding could offer?

13. What are the benefits of rewilding versus 'traditional' conservation?

14. Are there any limitations?

15. What are the challenges for NGOs?

16. How can NGOs 'pay' for rewilding? Is there a cost implication in comparison to 'traditional conservation'?

17. What might public perceptions of rewilding be?

18. What would the success of rewilding look like in your organisation?

19. What would the success of rewilding look like in Britain?

Researcher: If you can start by telling me your name and a bit about your current role and the organisation.

Participant: My name is (deleted for anonymity) and I'm an ecologist for (deleted for anonymity) in the South East. With a particular interest in rewilding.

Researcher: Fantastic. So we're going to talk a bit about rewilding, but if I use the term traditional nature conservation, what would that mean to you?

Participant: Intervention, largely, so management to keep particular processes or particular habitat or species at one point of condition, through intervening in those processes. So managing traditional hay meadows, for example, which is a cultural system,… effectively, or woodland management to create open areas through coppicing, or traditional intervention, or nature conservation management.

Researcher: So then, what does the term rewilding mean to you?

Participant: Ummm, I think its one of those terms that has a lot of meanings, and there is not really a clear definition. I prefer the use of 'wilding' cos I think when people use 're-wilding' they think about going back to a particular point possibly in our conservation history, so , for some people that would be when man was in his early stages and we hadn't had a massive impact on the environment, so there would be the species that were present then, ummm..., but for me its more about processes, its about getting them back, the natural processes that we may have lost or that we may be messing about with too much. Whether thats grazing as a natural process, or allowing erosion, or allowing succession even…., and catastrophic events to happen instead of holding habitats at a particular point in time in succession because of their interest. So thats why I think of it as 'wilding' really. Its allowing any type of habitat through all sorts of degrees to be wilder,

through functioning more naturally, even if thats through an urban habitat where we can just intervene less and just allow succession to happen to let it be wilder.

Researcher: So, this is focusing on NGOs, so who would you include within that definition?

Participant: Ummm, any NGO that has involvement in land management or conservation, so I would include the National Trust in that, definitely. The Wildlife Trusts, RSPB, WWF, the whole gambit really and potentially even some of the more people based conservation charities, where its more about wilding people's attitude to nature really, and letting them experience and connect with nature better.

Researcher: So what role do you think NGOs have to play in the 'wilding' or 'rewilding' of Britain?

Participant: Well i think there's 2 sort of big areas:
Doing it - so actually acquiring the land, or using land they already own, or can influence to rewild, to get some of that wilding back, to get natural processes functioning, and reintroducing species where thats appropriate. Or using analogues where thats appropriate, so analogues for some of the grazing processes, so in actually doing it, because we've got land. uuummm… its going to be much more difficult for some private landowners to commit to that sort of thing, ummm.. We could potentially take those risks.
The other thing is in changing attitudes, because it may be controversial to a lot of people who would see, traditional nature conservation (in inverted commas) potentially under threat, or people who come from a historic landscape perspective, who would find… who would think cultural landscapes were under threat, and even, your cultural communities, who would potentially regard wilding as abandonment or neglect, which of course, its isn't…. If you are doing, stepping away from intervention to get natural processes functioning, some people might call that abandonment, some people might call that restoration. So its changing those hearts and minds, to use a sort of cliche, where a lot of NGOs could potentially influence policy, influence landowners, through engagement and through demonstration as well, on our own land.

Researcher: OK, so what role do you think the UK government could play?

Participant: That's a difficult one. I think they need to facilitate it, in terms of policy in some places, but to be honest it can happen without intervention by government in some places, because of the land ownership. Where the state would have very little involvement really with what a private landowner chooses to do, if its within the law. What they could do with some of the potential reintroductions, particularly where that is predators, apex predators, or even meso predators that you need, to get back some of the natural processes, they could facilitate the welfare side of that. So an example is, a quite controversial example, is reintroducing wolves. Now there is an estate in Scotland, a private estate, who would be perfectly happy to do that tomorrow, if they could. Ummmm, and they would do it within a perimeter fence, with no access, so you get away from the problems with potential perceived danger to people or perceived danger to livestock, so its not a problem. But the big issue at the moment is welfare. So to introduce, to reintroduce an animal thats become extinct, a predator, if its within a perimeter fence, however big that perimeter fence, means that that animal would be regarded as captive, so theres lots of the zoo welfare legislation that would apply, which would render it virtually impossible for those animals to behave naturally, in terms of hunting their own prey, because of the perceived welfare … ummmm… issues with being hunted, as a prey animal. Ummmm and in terms of what the legislation would require even for those wolves, in terms of veterinary inspections, and a whole sort of panoply of other welfare legislation which makes ummmm basically…. a no goer, you can't really do it. So the state could do that, could be ummmm… facilitating some of that welfare and law issues, where there are the big stumbling blocks, as well as supporting the rewilding policy where possible. If we were to get really visionary, that state could have a far more proactive role, but I can't see happening in this country. My example would be, what the Netherlands does in terms of state involvement in promoting national planning policy based on ecological networks, and freeing up the movement of animals, and creating habitat, where thats needed, to allow species to move. Whether that's deer or larger mammals, grazing animals, so you could be incredibly proactive like that to get rewilding

going, but that would be a massive, massive cultural shift for our state and most of our landowning community, so I can't really see that one happening.

Researcher: Do you think there are any current government policies that do support the idea of rewilding?

Participant: Well probably the best one is the Lawton Review, in terms of the government adopting the recommendations of that report. In terms of… I always get this the wrong way round… more, bigger, joined up… something like that…. I always get it the wrong way round… ummmm… but you know…. government when it chooses to, doesn't follow its own policy, as we know with some of the things that are going on at the moment in terms of, you know,… On the one hand supporting that (policy) and having net gain in biodiversity for any development,…. but when they're doing a big infrastructure project, not actually following their own… that policy. And justifying it with various other arguments, so ummmm… Yeah, so I think some of the policy *is* there, its a question of will, really. To be a bit more adventurous, and a bit more visionary.

Researcher: OK. Can you see a time when apex predators are reintroduced in this country?

Participant: Ummmm…. its … ummm…. It is difficult that one, because of the size of territory that's needed for some of those apex predators, so if you put aside the wolf question for the moment, as thats a bits more of a tricky one. One I could see happening in terms of,… its still an apex predator, would be lynx. There is a really good feasibility study on what would be required if you were to reintroduce lynx. It basically says, that the only place we could do it based on our current population, habitat availability, prey availability and a whole host of other features, would be ummm… certain areas of Scotland. So certain areas of the Highlands, and I think about 50km squared in the Scottish lowlands. And south of the Scottish border it basically is not going to be viable to function naturally. Ummm… so it would be tricky, but I think that one could happen. I think there is more opportunity with some of the meso predators, and some of the other keystone species which aren't predators, so pine marten, could be one we could bring back. Again there's

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some really good feasibility work, and its happening in Wales now, they're being reintroduced in Wales. Ummm… there could be an English reintroduction further down the line. Ummm.. and then, although not a predator, beaver is an obvious one, which is happening right now, in places in the south, ummmm, as a really important keystone species,…. will have the same trophic cascade effect.

Researcher: So i guess in the UK, the model of rewilding we are looking at, might be quite different to the model that they have used in North America?

Participant: Ummm… I think its just a question of space, in terms of bringing back the wolf. I mean, you could do it in some parts of Scotland potentially, but once you get over the welfare issue, there's a massive educational issue. Ummm... but it might be possible, but you would have very small number of family groups, based upon the viability of habitat available. Ummm… and I haven't seen a proper feasibility study yet, for reintroducing wolves. I think some of the other potentials that people have mooted, like brown bear and others… I just don't think its realistic. You would need a territory the size of Wales, for a decent brown bear reintroduction, and its just not going to happen. We have moved on from the Paleolithic.

Researcher: OK. Ummm… so, obviously you're working for (deleted for anonymity), so does (the organisation) currently have a policy. Or is one coming?

Participant: It's emerging. So with the (organisations) sort of more recent strategy, redevelopment in terms of our programme, ummm… there is a presumption that rewilding is an element of that campaign ummm there is a draft target at the moment.. ummm… for… ummm… let me get this right, they are still very draft… 2% of (the organisations) land to be rewilded… I think thats it… something like that… but theres an emerging sort of policy statement coming out as well from the Head of Nature Conservation and me… so and others in terms of what rewilding means for the (organisation) in terms of (the programme). But there is definitely internal support for something like that.

Researcher: Do you think thats quite an ambitious target?

Participant: Ummm… you might not think it given our land ownership, but I think it is for the (organisation), because of, you know, the other pressures we have on our land, you know… we've got multiple uses, multiple significances, and I think it is quite ambitious for us.

Researcher: So i suppose there are some other projects currently, that are going on. I suppose, how well do you think those projects fit in with your vision of what rewilding is.

Participant: Do you mean other rewilding projects, or projects within the (organisation)?

Researcher: Other rewilding projects. A wider remit. So things outside the (organisation), and anything in the (organisation).

Participant: Yeah, I think, they demonstrate that scale of wilding things, that wilding isn't just one thing and it isn't just all about apex predators and nothing else. If you want to be really purist, you might say thats the case, but there are projects like Knepp Castle Estate, which doesn't have apex predators, it is still based agriculture, in terms of using, ummm, livestock as analogues for wild grazing animals, but they're getting those processes back. Whether those are English Longhorns that you can still use as a meat crop, is kind of an aside, some of those natural processes of oak woodland regeneration… some of those processes are coming back. So doing that is still really valid to me, irrespective of the fact that it might not be regarded as pure rewilding, its achieving some really good stuff. And ditto Wild Ennerdale, which again there is still quite a bit of intervention in that project, and its really not about just standing back and rewilding, in the purist sense, but theres still a lot of really good things happening, in terms of restoring the rivers, or wilding the rivers, so they function naturally again. You know, they're not cannalised, they are not constrained, they can move. Ummm… and thats resulting in improved fish populations and other things, so there are whole degrees of what projects can achieve that might stop short of you know, the

equivalent of getting wolves back to Yellowstone in the States. But I think it is still really valid, and we should look at rewilding as degrees of opportunity really, to wild wherever we can.

Researcher: Ummm, so I was looking at the Rewilding Britain website, and they describe the River Wandle in London as a rewilding project

Participant: Oh… really?

Researcher: So I don't know how you feel about that?

Participant: Ummm… I would probably be a bit more surprised by that one, because I would regard that as a bit more traditional river restoration, in terms of intervention. Easy, quick win measures in terms of soft engineering, that kind of stuff. Still getting processes back, but there is a lot of intervention to start with and I would regard the Wandle more like a catchment project, like the River Colne. Which is river restoration. Yes, putting lots of natural processes back, but doing it through engineering to begin with. Umm… and still… that river restoration project is probably one of the oldest in the country and you still have to tinker with it, as you learn more about it, so… you might regard… they are wilding to a degree, but I don't think I would put them in the rewilding/wilding bracket, if you see what I mean. I think they are a bit more about traditional intervention. Same sort of aim, bringing back natural processes, but they are way off functioning naturally, on their own, if you see what I mean, without constraint. Ummm… that ones interesting, I hadn't really thought that the River Wandle was one of the rewilding projects.

Researcher: How about, I suppose, I visited Wicken fen quite recently and chatting to the team there, they think about that as a bit of a rewilding project… What do you think about that?

Participant: I think thats more on the scale. Perhaps, probably, similar to Knepp, there is still a lot of intervention, and they are still using grazing animals as analogues, but I think the thing about Wicken, is its got a long way to go, but they haven't set an end point, which is really good, they are

acquiring lots of land, and restoring that to wetland, and mire habitats etc to buffer the NNR, but they are using it principally from the foundation, once they've got that land allowing natural processes to allow that to evolve and using grazing animals as one of those processes, in terms of its "management". But there is no sort of biodiversity target at the end of it. There isn't this sort of… we must have x% of mire, or x% of this habitat, its about seeing where it can go really. Part of the journey, so I think that is a useful one for rewilding, because you can get too tied up in targets in traditional nature conservation. Wilding is just as much about the journey, as what you get at the end.

Researcher: So would you say that, not having a set end point or any set targets is a key feature of rewilding?

Participant: Yeah, I think you could have an outline in terms of your vision of where you want to go in terms of processes, and what you might get, but i think you've got to be very flexible and don't define it in terms of rigid percentages. I mean there is a bit of work, umm an American, I think he's actually english but he moved to America, called Tony Sinclair, who is an American biologist. About how you might measure success from rewilding…. ummm without necessarily defining your end point. It talks about, defining where you're going in terms of… its been a while since I read this paper… rewilding units or something, but it was actually a really interesting piece of work, and (a colleague) and I thought about trying it out on a couple of our projects to see what happens, to see if it worked. its definitely worth a read. Ummm I've got his essay somewhere. Don't think he's published a paper, I think it was a presentation. But its ummm, its trying to combine those two things in terms of being able to state it is where you are going, and how you might measure your success. Without doing it, without defining it in terms of BAP habitat percentage, or this many species back. Ummm. that kind of thing… sorry I'm a bit vague, haven't read it for a while.

So I do think that its important that you get away from being target driven, in terms of rewilding, but, we still need to demonstrate that we've achieved something I think, in terms of policy, and in terms of science and learning, so its integrating those two things, somehow, is a challenge.

Researcher: So, yeah i suppose you have said thats a challenge. Do you think that measuring is something thats quite heavily relied upon in traditional conservation?

Participant: Ummm… you might think so, but in reality it doesn't happen. You might think that most people would be measuring and monitoring effect, or change of management or effect of management, ummm, but I think actually it's a big gap in traditional conservation anyway just due to resources.
But we are, we do tend to be very target driven in terms of policy. Ummm, so we still have these targets that we can't really measure properly against, but we still fudge it. Generally in my experience.

Researcher: And do you think, with rewilding, if its not quite as stringent, do you then think it might be easier to measure, or more difficult.

Participant: If you haven't got a fixed end point, it will be more difficult to measure against. There is a learning that comes out of the Wicken project that suggests how you might, pick some things to measure against a sort of broad objective, just in terms of looking at how species.. patterns change, or how processes are changing, so I think it would be possible. This piece of work done in America by Tony Sinclair, was another one that looked like it could apply, you could do that. Ummm, but I think we, the reality is that you,… if you have support from any organisation, or whatever, state, whatever, for wilding, you've got to be able to show success. You've got to be able to measure something. But how we do that at the moment is an issue, and what we measure, and how we do that and define it.

Researcher: So, some of those projects that we were touching on. Knepp, Ennerdale, Wicken we mentioned, controversially the River Wandle, what do you think works particularly well in those projects?

Participant: Just as a general principle across all of them?

Researcher: Or individually.

Participant: Well I think that generally across all of them, they all have that acceptance, that we don't quite know where this is going to end up, but we have a broad idea where we are going, and that's part of the point of the projects really. In terms of individually, I think one of the things about Knepp that has allowed it to get off the ground, is because its owned. It's a lot of land ownership by one family, by someone who's got a lot of drive and energy and didn't have any trustees or committees, or inputs like that which meant they could just do it, which means that you know, it was lot easier to take the risk, over how many thousand hectares of one person's land, rather than thousands of hectares of (the organisation's) land. you know, we are obviously under scrutiny, we have members, we have trustees, have committees, have all sorts of other significances. Thats not to say it isn't achievable, but I think it's a lot easier if it's just your idea. But it's been able to get going because of that, but I also think it's been successful because the person who is behind that project also listens to other people. Has advisers, and is very open, and will adjust things as it goes along, you do have to be flexible. Having good partnership, I think, in terms of the sucess of Wicken and Ennerdale, is also a strength of some of those projects, everyone is striving for the same thing, ummmm, and its a united front, effectively.

Researcher: Do you think there is anything that doesn't work well in those projects, that you might want to change.

Participant: For some of them, I don't really know them well enough, to know what you might change, uuummm. I guess somewhere like Knepp, the only thing that occurs to me with that one sometimes, is that because it is one family's vision and land, that the project could change in an instant effectively, because, you know its really innovative and successful but if the next generation decides they really aren't interested in that, and they want to farm, then they can. Cause its not protected, its individuals land, ummm, thats up to them to do what they want with it, more or less.

So theres probably something there about how you allow rewilding projects to continue into the future. Because they are only going to be of long term benefit if there allowed to happen over the long term. And although they can change, and evolve as we would expect them to, you kind of need that space to allow that to happen. So some of them unless they are not owned by the likes of the (organisation), or haven't a big partnership involved, are probably more risky in terms of their longevity.

Researcher: We've talked a little bit about some of the opportunities that rewilding could offer and some of the benefits versus traditional conservation, so you've obviously mentioned natural processes and allowing succession to happen. Ummm. What other opportunities do you think rewilding could offer?

Participant: Restoring a lot of ecosystem services, which are basically those processes, so it has that benefit, and you could, you know, potentially use rewilded areas for flood risk management. You know if you've got wild uplands then your going to be holding a store of that water, then it isn't going to flood towns and cities downstream, potentially. Connecting people is another big one in terms of allowing people to experience what wild is, what it is to be wild, to get back in touch, there is a sort of spiritual … I hesitate to call it spiritual, but there is that internal dimension to rewilding to be part of nature and being able to connect and experience it. Where's theres a sort of moral obligation almost, to put back some of what we've wrecked. There are opportunities there for engaging people, which could be through recreation, different sorts of recreation than we have now. Ummm, there could be opportunities. Depending where you are on that scale of rewilding theres still going to be potentially livestock meat coming out, of some of these projects like Knepp. Unless you have properly functioning systems with predators theres still going to be intervention required to cull herbivores, so you still can get a product from some of them potentially.

Researcher: And you think… so if thats a little bit about opportunities and perhaps benefits. Shall we talk a bit more about the limitations. Are there any limitations of rewilding?

Participant: I don't think its a panacea. I think its something that will go hand in hand with intervention, with traditional conservation, because you know, this is the 21st century, this is not the Bronze Age, we have moved on. So we need to think about, you know, what future wild we are creating effectively. And that means there are a lot of us out there, and we don't have space to go… to totally rewild. We still have important species and habitats that do require intervention because we have removed their capability to function otherwise. And I think, it would be chucking the baby out with the bathwater, wouldn't it? 'Rewilding can solve everything, and lets get rid of all those traditional hay meadows and all that heathland', because these are all things that have developed over hundreds and hundreds of years of cultural management, effectively, so, there is still room for doing both things and I think one of the challenges is, that it is neither one nor the other, we need to use both and explore the opportunities of both. And rewilding isn't going to solve everything, but I think its going to go a long way to changing the nature conservation remit and getting us to where we want to go. But its not going to be the answer to all our problems. Its not something we can do everywhere. Theres a limitation there I think, just on practicality. Ummm there could potentially be limitations through land ownership. And because the landowning community can be quite risk averse often. in terms of protecting food production and protecting livestock, you know just through perhaps lack of understanding about what we mean by rewilding, lack of understanding about the issues, so sort of linked to being one case, you know where, basically sheep farmers cant entertain the idea of lynx reintroduction, because they think its just going to decimate their sheep, and in reality thats just not going to happen. And its a very subjective point of view. So there are some limitations there.

Researcher: How do you think you might overcome that issue. Particularly with the farming community?

Participant: I think thats through education really. Showing what can be done. So the likes of Knepp are vital with that, because its not a hippy NGO doing it, its commercially minded aristocrat who can show his fellow landowners whats possible and still get an income from the estate. Demonstration is key to education, it won't work for everyone, but I think if we keep plugging away

at the younger generations coming through who hopefully won't have the same prejudices and biases.

Researcher: I suppose talking about the education side of it. What do you feel about someone like George Monbiot who has been very vocal about his opinions. Do you think thats useful or harmful to the debate.

Participant: Largely useful, I think if people like that stay open minded and allow the debate to develop effectively. Its a consensus rather than one person's vision. I think its really useful to have someone like that, who perhaps doesn't have the same issues in terms of being a landowner, or being an NGO, to say the things that need saying sometimes and to provoke debate. I don't agree with everything he says, and others like him, but there is still a lot of useful debate to be had. I think by and large those sorts of people help to kick things along. I think it would only become harmful if they become obsessed with certain elements of their own vision potentially, and don't allow things to evolve differently. I just thought of another limitation in terms of peoples attitudes, that with rewilding if you … theres going to be lots of opportunity to allow stuff to move in if you take say a but of marsh or farmland and rewild it, but you might lose stuff along the way and thats something people, might find difficult in terms of a limitation, but its just a cultural perception.

Researcher: OK. So you have touched on some of the opportunities and challenges. So I'm just thinking about cost, so perhaps… How can NGOs pay for rewilding or is there a cost implication in comparison to traditional conservation?

Participant: I think it could actually be a lot cheaper to be honest. I mean… bar having the land to do it on, which might require acquisition of new land. Because there is a lot less intervention in terms of management. There might be some kickstarts and stuff needed at the beginning, to take some of the constraints off natural processes…. potentially a lot cheaper because you're not needing machinery to cut and mow things… or if you can allow your animals to live an effectively natural life, you don't need the same sort of drug and welfare schedules, but again there's a lot of

risk there in terms of losing livestock due to the welfare side of things, so actually it can be a whole lot cheaper than traditional nature conservation and intervention… So yeah. Bar an initial acquisition, potentially there could be very little cost in terms of actually doing stuff on the ground, but there may be associated costs in terms of engaging facilitation and liaison and all that sort of thing as we have to prepare the ground with stakeholders

Researcher: Can you see any potential with claiming grant funding?

Participant: Hmmmm…. Yeah it doesn't fit any of the current agri-environment stuff other than, you know, the likes of Knepp where they've got innovative experimental HLS stuff. So it would be difficult from an agri-environment point of view. There maybe a lot more sort of scope with charitable trusts who have that sort of similar vision, and want to do something different …that might fund things like that, but there are a lot of other funding streams at the moment thatt are just being cut, repeatedly, so options are closing down in in terms of potentially, LIFE Europe money and landfill tax money, and those sorts of things I think it would really be the likes of private charitable trusts potentially HLF…. yeah, so yeah… funding could possibly be a challenge.

Researcher: So we talked a little bit about public perceptions of rewilding and you touched on it being sort of controversial idea and sort of particularly with changing historic and cultural landscapes can you perhaps tell me a bit more about that?

Participant: I mean there's…. Ummmm we do have this concept of cultural landscape because we are cultural species. And those are very important… and it's quite an intangible value really something was putting on it ourselves but they do sit alongside a lot of the other significances we have, so that's another reason I don't think that rewilding is the solution everywhere, or that there is a degree of what you can do on that wilding scale in certain areas. I mean, I guess one would be a cultural landscape like the Lake District. I mean Wild Ennerdale is in the Lake District but probably isn't going quite as far as it could do because… out of what is essentially in places and people influence landscape, through livestock management and all those sorts of things, that it would be

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quite difficult to take away all of that to do something 'big' in terms of rewilding. So it's a balance really. Uhhh, there might actually be more opportunity in some of the landscapes that we perhaps don't have that iconic cultural status in,ummm…. in the lowlands potentially or marginal farmland, bits of coast linking up to the sea, and rewilding the sea as well And I suppose even in the uplands there is traditional view, I say a traditional view, I think it's a modern view of what the uplands look like in terms of people's perception of the cultural landscapes of somewhere like the Brecon Beacons or the Pennines or somewhere like that, when you could… you can still have opportunities to do rewilding to shift those perceptions because those perceptions are really modern… and to use… to coin somebody else's phrase the 'shifting baseline' that Frans Vera talks about, you know every generation has different view of what natural or landscape is and moves further and further away from what's natural, most of the time, ummmm, so I think that you could potentially change that. Again using ummm, examples to demonstrate and the uplands are potentially where traditional land management is more marginal economically so that could create more of an opportunity. Ummm I'm rambling a bit now… I've forgotten what the question was. What was the question again?

Researcher: It was talking about historic and cultural landscapes.

Participant: So cultural landscapes. So I think… yeah there's still a lot that could be done through cultural landscapes and education. I think it would be difficult in some of the really iconic designed historic landscapes. So to take the Capability Brown landscape, for example, potentially, and then rewild it.. although, of course, Knepp is a Repton design park and has been rewilded,…. so there's still an opportunity, but, I guess, its again thinking about where on the scale you can go. You can get wilder and bring in natural processes, but at some point… you can't potentially trash those other significances, put them aside for another one, if you see what I mean. Its balancing them all up. You in theory wouldn't go…. and allow large stock to overgraze and trash all your veteran trees and your Repton or Capability Brown park. (Laughs) Because that could happen, you could have some grazing levels that would do that… Buts its a balance. You couldn't do that all the time so it's about changing perceptions.

Research: So you've talked about this sort of scale, and I suppose at the top of the scale you might have something like Yellowstone, possibly not in this country, but where do you think the bottom of that scale falls?

Participant: Probably sort of just short of traditional intervention, nature conservation really. Ummm, most of that isn't really about wilding, its about management, ummm but I suppose you could also take it the other way couldn't you, and you could look for opportunities to wild where ever you can. Whether that's your verge and allowing it to function naturally with wildflowers or…. ummm… you know… your local ditch or something. So there are whole degrees of opportunity and it's quite hard to really draw a line in terms of actual wilding. There's probably an opportunity to wild any sort of habitat anywhere. But I think if you're talking about the big… big stuff in terms of getting natural processes functioning at landscape scales, then you're probably drawing a line somewhere, before most traditional nature conservation management. I need to think about that one a bit more. Ummmm.

Researcher: And which of those do you think might be easier to sell to people, that kind of big landscape scale process stuff or the on your doorstep verge stuff?

Participant: Ummmm… Necessarily not one or the other really. I think you could do both, depending where you are. I think the standing on the doorstep stuff is easier in urban areas and could potentially be easier in rural areas as well, when you've got traditional agricultural communities who could see a big landscape scale project as a threat to their way of life, where an urban population probably wouldn't see it like that, they'd probably see it as a massive opportunity of somewhere they could go out to. Ummmm… Yeah there's stuff even in London you know the London… what is called… this London Greening, this project for a London eco-park type thing…?

Researcher: The Greater London City Park scheme?

Participant: Yes where you could potentially have quite wild bits couldn't you… within the urban context is an opportunity, and we could sell that potentially quite easily. Ummm, I don't necessarily think one is more easy to sell on the other I think it's really about where it is and the people that are involved. That might be the bigger influence.

Researcher: Thinking back to your organisation what do you think the success of rewilding will look like there?

Participants: Ummm, well I think there's kind of two things, there's one as in the organisation what it will look like. In terms of success, in terms… of purchasing or using some of our land to do a rewilding project on, a wilding project and engaging people in it, that would be success. Doing something possibly bigger, going a little bit further than a Knepp or a Wild Ennerdale, that sort of thing. But personally what would be, feel a massive success to me, is if we can use a lot of what has happened at Knepp in one of our historic landscapes. Because I think we can do. I don't think you have to maintain this sort of modern view of some of our historic parks, in terms of what they should look like. And how they should be managed. I think we could wild up quite a lot of them. And having free roaming extensively managed livestock wandering through the likes of (site) or (site) or something, would be a massive step forwards, and I think it's possible. That's just internal attitudes and cultural significances as well that we'd have to change along the way.

Researcher: So, where are those internal attitudes is coming from?

Participant: I think from all layers, I think there would be… you could potentially through, just lack of understanding… you might say curatorial colleagues might feel threatened by rewilding as sometimes they have felt/ feel threatened by (our current strategy). Trustees, you know, Council and high levels of management who haven't really engaged with these kinds of things, might regard it as too much of a challenge, seeing as the (organisation) can be a bit risk averse. That said, there is appetite for some of this stuff through (the strategy) so now is the time… to do something different.

Researcher: And then thinking about it more widely, Britain as a whole, In an ideal world what would you like to see rewilding look like, across Britain?

Participant: Well I'd like to see any opportunity taken to make things wilder and more natural, and less tidy, and less sprayed with glyphosate, and that sort of stuff. Anywhere. But I would also like to see a big project somewhere, whether that's a reintroduction, but preferably, for me, I think a big patch or tract of land that we can take, can take the intervention away, effectively, or do what's necessary to kickstart those natural processes, and stand back and see what happens. And experience it, and allow other people to experience it. Ummm have that as a massive… a big rewilding project. It might require some introductions and things like that to get it going, but ummm we shouldn't be afraid of that necessarily. Yes I would quite like to see, I hesitate to use the words park, but a rewilding park. Somewhere. You know… a big tract of land.

Researcher: How big do you think that would need to be?

Participant: Oh dear… (Laughs) I don't know really. I think it depends on where it is, in terms of the processes you would need to get back. The bigger, the better basically, you know, joined up to other landscapes potentially… yeah… corridors in that context

Researcher: I've just noted down you talked about rewilding the sea, I suppose that is something I haven't really heard a lot about in terms of the marine environment which is more complicated. So what do you mean when you talk about rewilding the sea?

Participant: Well I think it's sort of a difficult concept, we don't have the same perception of intervention at sea because we can't always intervene in the same way we can on land. But we *do* in terms of fish harvesting, and marine life harvesting and dredging and all those sorts of things. So I think when I sort of think about it, I think about it connected to land really. So if we did have a big landscape that we could do some rewilding on, preferably that would be a landscape with at least a

coast, so we could have a really wild coast functioning naturally and eroding and moving and sand moving and that kind of stuff. Dune systems not fixed and moving. But also that area of sea, potentially, offshore, not fish and not dredged, all those sorts of things, so potentially you allow those processes to happen, completely, all the way down.

Researcher: That's everything I have on my question list, are there any other thoughts you'd like to add?

Participant: I guess one thing I… that comes up in my mind about rewilding is that we can all get a bit bogged down in what it means, and I think sometimes we've just got to accept that there might not be a black and white definition of what rewilding means, and we just need to take the opportunity to wild wherever we can, and think about what we want to create for the future in terms of a future wild. And … don't worry quite so much, you know, about what it might look like when man wasn't in his loincloth or whatever.. or man and woman in their loincloth, because we've impacted all the way along, we're part of things so that's gonna happen. We need to just go forwards really rather than getting bogged down in the past.

Appendix C - List of codes applied to data during analysis

With some examples of quotes that had been classified within that code

Theme	Abbreviated code	Example Quote
Definition - Natural Processes	D-NatP	"to rewild, is to restore natural processes as much as we can. over as bigger area as we can." J
Definition - Sliding Scale	D-SS	"rewilding is about the process of moving along this scale," G
Definition - pure	D-p	"Ennerdale is rewilding, but its not pure rewilding." J
Definition - preconceptions Positive Negative	D-pre + -	"You probably wouldn't use the term right now, if you wanted to get stuff done." I
Definition - size	D-Sz	"The scale bit of it, is the key question, for rewilding as a concept, but particularly in the UK, which is a crowded island." I
Definition - Reintroductions Beaver Wolf Lynx Bear Eagle Pine Marten Legalities	D-Re -bv -W -L -B -E -PM -Leg	"I think there is more opportunity with some of the meso predators, and some other keystone species which aren't predators, so pine marten, could be one we could bring back." A
Definition-human intervention	D-hum	"you might still need some bits of human intervention." G
Definition-people	D-peop	"another part of the definition of rewilding is about rewilding us and our minds." B
Definition-habitats Urban Wetland Seas Upland Farm Wood	D-hab -Ur -We -S -Up -F -Wo	"Even if thats through an urban habitat where we can just intervene less and just allow succession to happen to let it be wilder." A
Definition-no end point	D-end	"we're not aiming for an endpoint with rewilding." D
Definition - traditional conservation	D-TC	"they are based upon long standing techniques that deliver quite prescriptive, but desired endpoints." C
Defintion - many	D-many	"I think its one of those terms that has a lot of meanings." A
Ecosystem Services - Provisioning	ES-P	

Ecosystem Services - Regulating Flooding Water Quality Carbon seuqestation	ES-R ES-R-F ES-R-WQ ES-R-C	"there is evidence to show that water quality coming out is much higher." G
Ecosystem Services - Supporting Soil function	ES-S ES-S-So	"ecosystem function in cleaning soil, good soils holding lots of water." B
Ecosystem Services - Cultural Tourism Reintroductions Education Reconnecting people Health	ES-C ES-C-T ES-C-T-Re ES-C-E ES-C-RP ES-C-H	"The walker's benefit, so the local bed and breakfast places and cafes and restaurants benefit." J
Increasing Resilience	Res Res-CC Res-Pop	"It will welcome opportunities for environmental change that increases accommodation or resilience to increasing environmental change." B
Finance Negative Positive	£ £- £+	"so we don't have to spend a whole load of money doing intensive land management." I
Finance - Tourism Negative Positive	£-T £-T- £-T+	"the white-tailed eagle population on Mull is worth £6-7 million a year to the Mull economy" J
Finance - Food	£-F	"Taking a good, healthy, organic meat crop off.. They are making money. They are making serious money." J
Finance - renting buildings / other	£-Misc	"the fact that we've got dairy units that we can rent out and bring some extra income." D
Finance - grants/funding Agricultural grants Ecosystem service payments	£-G £-G- farm £-G-ES	"the payments for ecosystem services might come." B
Core Purpose - Biodiversity	CP-Bio	"We're actually restoring nature." B
Core Purpose - Habitats Uplands Urban Wetlands Seas Farms Woodlands	CP-Habs CP-Habs-Up CP-Habs-Ur CP-Habs-We CP-Habs-S CP-Habs-F CP-Habs-Wo	"The ones that work spectacularly well very quickly are serious wetland re-creation." J
Core purpose - people	CP-Peo	"engage people with the idea of rewilding" G
Core purpose - traditional conservation	CP-TC	"we have a very prescriptive management plan… it's part of the NNR, so we're obliged to do that."C
Core purpose - science/ research	CP-Sci	"it is like a big scientific experiment." D
Core purpose - doing it	CP-do	"they are actually doing it." G

Core purpose - lobbying	CP-lob	"you've got all these charities and they all say different things. And you can see from a minister's point of view, it's very frustrating." J
Core purpose - red tape	CP-red	"you wouldn't be able to be that reactive because it just takes so long to do anything." D
Core purpose - longevity	CP-long	"some of them, unless they are owned by the likes of the (organisation), or haven't had a big partnerhsip involved are probably more risky in terms of their longevity." A
Perceptions Internal	P P-I	"and several of the board members… thought I was mad." J
External Membership	P-E P-Mm	
Perceptions - species loss	P-sp	"It might disappear from that particular protected area and go somewhere else… They won't be able to accept that" B
Perceptions - abandonment	P-aban	"some people might call that abandonment, some people might call that restoration." A
Perceptions - cultural	P-cult	"..you don't have to maintain this sort of modern view of some of our historic parks in terms of what they should look like, and how they should be managed. I think we could wild up quite a lot."A
Perceptions - control	P-cont	"People don't want to lose control, they think that nature needs to be looked after." B
Perceptions - understanding	P-Un	"You probably wouldn't use the term right now if you wanted to get stuff done." I
Perceptions - damage	P-dam	"… you can't potentially trash those other significances." A
Perceptions - media	P-med	"The media would look at rewilding as large carnivore releases, removing sheep, wolves and lynxes hunting down deer." B
Perceptions - welfare	P-W	"…so konik ponies starve to death and you have a real animal welfare problem." J
Government Policy Licence	Gov Gov-Pol Gov-Lic	"I think they need to facilitate it, in terms of policy in some places." A
Ignore	Gov-Ig	"There is a general tendency in government to ignore advice it doesn't want to hear." J