



Conservation in the face of ambivalent public perceptions – The case of peatlands as ‘the good, the bad and the ugly’



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ABSTRACT

Most conservation efforts today recognise the need to involve the public if conservation is to succeed in the long-term. A common approach has been to try to educate the public on why they should care. However, information campaigns are often not effective in changing opinions, let alone behaviour. In this paper, we try establishing the basis for alternative approaches based on understanding people's motivations, perceptions and relationship with nature. Using focus groups, we look at the case of peatlands in Scotland, as an example of an ecosystem which is currently the focus of many conservation and restoration initiatives while seen as ‘problematic’ in the sense that those advocating its conservation assume that the general public does not care about peatlands. Our results show that perceptions of peatlands are ambivalent and many-faceted, and that they can be understood, metaphorically speaking, as good, bad and ugly at the same time: they can be seen as bleak wastelands; beautiful, wild nature and cultural landscape. The multiple and ambivalent views of ecosystems such as peatlands seem not to stem necessarily from lack of knowledge, but to be linked to biophysical characteristics, history, trade-offs between different uses and differences in personal relationships with nature. To ensure the long-term success of conservation, it is vital to understand and manage the public's different and ambivalent views about and attitudes towards landscapes of a greater or lesser degree of wilderness. Many practitioners have now come to accept and manage the fact that there is uncertainty in relation to the outcomes of the biophysical processes underpinning ecosystem restoration. It is now necessary to acknowledge human ambivalence and to find mechanisms for dealing with it. This should become one of the new pillars of conservation practice.

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1. Introduction

Most conservation efforts today recognise the need to take perceptions and values of a range of stakeholders into account if conservation is to succeed in the long term (Harrison and Burgess 2000; Linnell et al. 2015; Mace et al., 2011; Robinson 2011). This includes those who live in or close to conservation areas, who will often bear costs in terms of restricted use and access, but also the wider public, who shares the cost for publicly funded conservation. In the case of charismatic mega-fauna it may be relatively easy to attract widespread support for conservation, although even in these cases there may be conflicts and different interpretations of how species and ecosystems should be managed (e.g., Fischer and Van der Wal 2007; Patterson et al. 2003). For less iconic fauna, flora and ecosystems it may be more difficult to garner the support of the public. A common approach from conservation organisations and governments has been to try to educate the public on why they should care about for example rare moths and herbs (Buijs et al.

2008). However, information campaigns are often not effective in changing opinions, let alone behaviour due to the weak links between knowledge, attitudes and behaviour and a lack of understanding of the social representations of nature (Buijs et al. 2008; Heberlein 2012). How and to what degree information is taken on board depends for example on pre-existing beliefs and values (Groffman et al. 2010; Nisbet and Scheufele 2009). A more fruitful approach may therefore be to look at the reasons why people do or do not support certain conservation projects or approaches and how this is related to their interactions with the environment. This includes perspectives on the appropriate use of a place or ecosystem, and views on how perceived benefits and dis-benefits associated with an ecosystem and its different uses have been and will be affected by human use (Bennett 2016; Cheng et al. 2003). Studies on farmers' attitudes to agri-environmental schemes have for example shown the many-faceted reasons for farmers' resistance to such schemes (Harrison et al. 1998; McHenry 1997). These include different understandings of nature, conservation and humans' relationship with nature and of the effects of their own actions as well as reactions against being portrayed as ignorant, and feeling under pressure from an increasingly urban society (Harrison et al. 1998; McHenry 1997). Here we look at the case of peatlands in Scotland, as an example

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of an ecosystem which is currently the focus of many conservation and restoration initiatives, and which is seen as 'problematic' in the sense that those advocating its conservation assume that the general public does not care about peatlands (Scottish Natural Heritage 2001, 2015).

Globally, peatlands cover around 3% of the earth's land surface, hold around 10% of the world's freshwater and 33% of the world's terrestrial carbon (Joosten and Clark 2002). Around 9–15% of Europe's peatland areas are found in the UK of which more than 77% are located in Scotland (Bain et al. 2011; Bruneau and Johnson 2014). Scottish peatlands mainly consist of blanket bog, which is a globally rare habitat type (Bruneau and Johnson 2014). Perceptions of peatlands have changed over time with changing uses (Collier 2014). Archaeological finds indicate that peatlands in Europe used to be sites of ritual importance as well as being sources of food and materials (McDermott 2007; Van de Noort and O'Sullivan 2007). In the more recent past, peatlands in Scotland were mainly seen as either a source of peat or as wastelands to be converted to other productive uses such as forestry or agriculture (Johnston and Soulsby 2000; Rawlins and Morris 2010; Smout 1997; Van de Noort and O'Sullivan 2007). As a consequence a large portion of Scottish peatlands has been degraded to some extent leading to biodiversity loss, release of greenhouse gases and problems with soil erosion and water regulation (Bain et al. 2011).

Today, experts view peatlands as important providers of ecosystem services such as carbon sequestration, biodiversity, water regulation, preservation of natural and human history, sense of place, fuel, grazing, and field sports (Bain et al. 2011). Conservation of peatlands is advocated on the basis of these services, especially regulating and supporting services (carbon sequestration, water regulation and biodiversity) (Bain et al. 2011; Evans et al. 2014) and is reflected in international policies and agreements such as the RAMSAR convention and EU Habitats Directive, and in national policies in countries such as Scotland. To win the public's support for peatland restoration, information materials seek to convey the many benefits of peatlands, including the use of the peat itself even though this is seen as one of the causes of degradation (Whitfield et al. 2011).

However, little is known about what peatlands mean to people today (with a few notable exceptions such as e.g. Collier and Scott 2010; Reed and Kenter 2014), especially beyond their direct use for economic activity, and how people view conservation and restoration efforts. The few existing studies have shown that both cultural and provisioning ecosystem services are important (Collier and Scott 2010; Collier and Scott 2009; Reed and Kenter 2014), but that existing trade-offs between different types of uses may not be acknowledged (Bullock and Collier 2011). While cultural ecosystem services are often defined as a category of their own comprising 'immaterial benefits and services' provided by ecosystems, we here use a broader definition where we include cultural significance of e.g. provisioning services and material benefits such as income from e.g. recreation businesses. In addition, culturally shaped values are essential in defining what are regarded as services or dis-services, and are therefore key to perceptions and attitudes towards management and conservation of ecosystems.

In this study we investigate present day perceptions of peatlands in two locations in Scotland including the views of people who live or work in peatlands, as well as the views of those who do not. We argue that support of both groups is important if conservation is to succeed in the long-term, and that it is necessary to better understand their views of peatlands. This can help to understand support or resistance to conservation and particular management interventions, tailor communication material and identify common ground as a first step to resolve conflicts (Fischer and Van der Wal 2007; Patterson et al. 2003). To gain a better understanding of how people perceive peatlands we conducted qualitative research focusing on

- the range of uses, benefits, dis-benefits, problems or conflicts people recognise in relation to peatlands,

- people's perceptions of the consequences of peatland degradation and of peatland restoration

The study took the form of three focus groups, two in an urban setting far from larger peatland areas, and one in a rural location in a peatland dominated landscape. The results help us to identify barriers which need to be overcome, in order for restoration and conservation of ecosystems such as peatlands to be successful.

2. Peatlands in Scotland

Peatlands can be defined in several ways, and classified according to geographical location, whether they are actively forming peat at present or not, and the different types of vegetation associated with them (Bruneau and Johnson 2014). General characteristics of peatlands include that they are waterlogged, nutrient poor and that the soil consists of an accumulation of partly decayed vegetation (peat) with great water holding capacity.

Peatlands are estimated to cover more than 20% of Scotland's land surface (Bruneau and Johnson 2014). Most peatlands are located in the western and northern parts of Scotland and continue to be used in a number of ways. In some rural peatland areas, peat is still a source of fuel that is extracted and burned by local people to heat their homes. Peatlands are also used for grazing (mainly sheep), although the economic importance of these local uses has declined. Most people in Scotland do not currently live close to areas that are dominated by peatlands and their experiences with peatlands are more likely to consist of recreational use in the form of walking or use of products such as peat-based gardening compost or whisky. Other uses include field sports (shooting and stalking), which often entail some drainage of the land and burning to create improved feeding conditions for game. If the land is drained or burned, this typically implies that peat forming processes are disrupted and that existing peat may be at risk of erosion and loss through decomposition (Evans et al. 2014).

Perceptions of different uses of peatlands today need to be seen against the backdrop of historical events and patterns of land ownership in Scotland. The areas most rich in peatland are areas with a violent history of conflict between estate owners and tenant farmers who were evicted in large numbers in the 18th and 19th century to make room for extensive sheep farming (Smout 2000). Despite land reforms in recent years, land ownership continues to be very unequally distributed with a large proportion of the land being owned by a small number of individuals, including many absentee landowners. During the 20th century, large areas of peatlands were afforested with conifer plantations. This was partly done by the Forestry Commission (the UK agency responsible for forests), and partly by (mostly non-local) private investors attracted by lucrative tax arrangements. However, in the 1980's this practice was largely stopped due to increasingly vocal opposition from conservationists (Smout 1997). Some peatlands have also been used as the location for wind farms or have been converted to built-up areas (Bruneau and Johnson 2014).

While efforts to transform peatlands into productive uses such as agriculture and forestry dominated until well into the 20th century, nowadays Scottish government and environmental interest groups emphasise the need to preserve and restore peatlands. No exact data are available on the status of peatlands in Scotland outside of protected areas, but it is estimated that only around 18% of all the UK's blanket bogs are in a natural or near-natural ecological condition (Littlewood et al. 2010). These figures are expected to change towards more peatlands being in bad or intermediate conditions if no restoration action is taken. Causes of deterioration include grazing, afforestation, burning, drainage as well as climate change (Bain et al. 2011; Bruneau and Johnson 2014).

To promote the restoration and conservation of Scottish peatlands, a National Peatland Plan has been developed (Scottish Natural Heritage

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