

PRESERVATION OF WILDERNESS AREAS IN EUROPE

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ABSTRACT

A unique momentum has been created over the past few years for strengthening the protection of wilderness in Europe. Policy makers started to pay attention to the importance of truly untouched and non-managed areas and the European Parliament adopted a special report on wilderness in February 2009. The report was followed by the EC Presidency Conference in Prague, May 2009, on Wilderness Areas. The most important outcome of this event was the approval of the 'Agenda for Wilderness', which eventually led to the inclusion of wilderness in the new EU Biodiversity Strategy. This paper argues that these political successes have yet to be put into practice. Threats to wilderness areas are still increasing and there have been no improvements in the management of these areas. There are emerging threats, especially from tree felling and mining, which is driven by increase in commodity prices. In order to save the last pieces of wilderness in Europe and utilize the current opportunities to restore wilderness areas, science and field conservation must develop a common Wilderness Research Agenda for Europe. The main questions are: (i) What are the ecosystem services and benefits that humans obtain for wilderness areas? (ii) What is the potential contribution of such wilderness areas for reducing biodiversity loss, halt species extinctions and support biodiversity restoration in Europe? (iii) What is the social perception of wilderness in different countries and across different sectors of society? (iv) What should be considered wilderness in a densely populated area such as Europe?

Keywords: wilderness, Europe, biodiversity, mountains, restoration

Background

Discussions on the new European biodiversity strategy and inclusion of wilderness in a European conservation vision was first suggested during the 1st European Conference on Conservation Biology (ECCB) in Eger in 2006. It was argued that 'natural processes that favour biodiversity and provide ecosystem services, including e.g. the need to define wilderness areas in some close to climax habitats, need to be addressed' (Miko 2006). This seminal presentation resulted in a discussion involving the European Commission, scientific and civil society sectors. Following on the conference in Eger, a seminar on wilderness was organised during the 3rd ECCB in Glasgow. This seminar focused not only on aspects linked to conservation biology, but adopted a multidisciplinary approach and included aspects of both social and geographic studies. During this seminar there was an offer to dedicate a special issue of the European Journal of Environmental Sciences to European wilderness areas. This paper is also a unique opportunity to promote the Science symposium of the 10th World Wilderness Congress, which will be held in Salamanca, Spain, in October 2013.

There has been an move to increase the protection of wilderness areas in Europe over the past 5 years. While the protection of wilderness areas has a long history in the US starting with the approval of the US Wilderness Act in 1964, this is a relatively new phenomenon in Europe.

Protected areas in Europe

Territorial protection in Europe started with the designation of the Abisko National Park in 1909 and boosted in the 1970s when IUCN introduced the concept of landscape protected areas. The Category V, Landscape Protected Area, opened up the opportunity to protect larger modified landscapes and rural areas with the aim of maintaining biodiversity. One can argue that the value of such highly modified landscapes, although important for protecting certain species, is not necessarily mainly the maintenance of biodiversity. They are still used for producing various agriculture or forest products and subject to constant human intervention.

For instance several participants at the Euromontana conference in Lillehammer in 2010 argued for increasing agriculture related subsidies in order to maintain the traditional land use practices in the mountains of Europe. The argument was mainly linked to extensive farming (Kun 2011). People argued that most mountain grasslands are secondary vegetation formations whose continuity requires a certain level of human maintenance. Natural processes as a potential way of maintaining and strengthening the protection of biodiversity are still largely ignored in Europe.

The boom in using IUCN categories for modified landscape protection resulted in a huge imbalance between the representation of modified landscapes and wilderness areas in Europe. A recent report of the European Environmental Agency (EEA) reports that the area

protected in the 39 EEA countries is around 21% (EEA 2012), whereas that of wilderness is around 1% (European Parliament 2009). However, there is no scientific evidence for this figure!

These two numbers, 21% protected compared to 1% wilderness, demonstrates the lack of wilderness and non-intervention management in Europe. However there are some important steps towards strengthening the protection of wilderness areas in Europe

Chronology of wilderness policy development

In 2008 over 100 organisations representing various interests from the civil society sector to tourism and governments signed a Resolution on Wilderness and submitted the document to the European Commission requesting stronger protection of wilderness areas.

Following upon this resolution, the European Parliament adopted a special report on wilderness on 3 February 2009. This report was supported by an overwhelming majority of the MEPs with over 500 voting yes and only 19 voting no. This report requested the European Commission to take further concrete steps for the better preservation of wilderness areas.

In order to define these concrete steps the European Commission financed a Conference on Wilderness and Wild Land in Europe during the Czech presidency of the EC (Prague, May 2009). The most important outcome from this conference was the adoption of the Agenda for Europe's Wilderness, which lists 24 recommendations covering the following 4 fields: policy development, awareness raising, generating additional information and developing a supporting capacity.

After this conference it was very obvious that there was a need for much additional work on two aspects of wilderness protection: enforcement of the protection of existing wilderness areas and restoration of areas to wilderness in order to increase the coverage of wilderness.

The 3rd Global Biodiversity Outlook report mentions the opportunity for "rewilding landscapes from farmland abandonment in some regions – particularly in Europe, where about 200,000 square kilometers of land are expected to be freed up by 2050. Ecological restoration and reintroduction of large herbivores and carnivores will be important in creating self-sustaining ecosystems with minimal need for further human intervention." (CBD 2010). The expectation that it is possible to restore a large proportion of land to wilderness areas is of great importance for rural regions in EU member states. Land abandonment is especially important in mountainous areas (IEEP 2011).

In terms of wilderness, the greatest area in Europe is located in the Nordic mountains. Elsewhere, only Spain has more than 10,000 km² of mountain wilderness. Of the total area designated as Natura 2000 sites, 43% is in mountainous areas, compared to 29% for the EU as a

whole. These sites cover 14% of the mountainous area in the EU (EEA 2010).

In order to exploit the opportunities for restoring wilderness areas in Europe, a conference was organised under the Belgium EC Presidency in November 2010, which was specifically dedicated to restoring wilderness areas (entitled Restoring the Wild Heart of Europe). Following upon this conference the European Commission published a special guidance document on wilderness for Natura 2000 site managers. Although this guidance document has yet to be approved, the draft version, which is currently under review, is available on the DG Environment's website in the wilderness part of the Natura 2000 section (European Commission 2012).

Historic opportunity

There is now a great opportunity to set up a European Wilderness Preservation System within the framework of the network of existing protected areas and Natura 2000. The European Commission initiated a new project to develop an online database of wilderness areas. This register is to be finalised by June 2013 and will be an open database, which will reveal the actual coverage of wilderness in 39 European countries.

This register will help to identify those areas that can be categorized as protected wilderness. Hopefully it will also indicate opportunities for increasing the coverage of wilderness areas by slight changes in management of existing protected areas. The database may also highlight existing and possible future threats to wilderness areas.

This register will provide many opportunities and also a strong basis for arriving at an acceptable definition of wilderness. The Europarc Federation established a working group in August 2009 with the aim to develop a commonly accepted definition of wilderness for Europe. This working group recently completed this task and the European Commission agreed with its recommendation that the following definition be adopted:

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

This definition clearly indicates that wilderness is not a buzzword or another word for biodiversity.

Threats to wilderness

Ironically there are opportunities for wilderness to exist in Europe in spite of increasing threats to their existence. Despite the ambitious target adopted by the world's governments of reducing the rate of loss of biodiversity by 2010, biodiversity continues to decline (Butchart et

al. 2010) and scenarios for the future indicate that the window of opportunity for reversing biodiversity loss is closing (Pereira et al. 2010). After failing to meet the 2010 biodiversity target, the parties to the Convention on Biological Diversity have just agreed in Nagoya a new set of ambitious targets for 2020. These targets include for example to increase the coverage of protected areas from 12% of the land surface to 17% and ensure that all areas under forestry are managed sustainably in the future.

Wilderness areas are core zones of Europe's Green infrastructure and are likely to play a significant role in reducing the loss of biodiversity. However, there is increasing pressure on these areas throughout Europe. The major threats to wilderness are:

1. The tendency to regard 'traditional' land-use as a way of maintaining the current European landscape;
2. Over grazing by domestic and semi-domestic breeds, which are used as a replacement for wild grazers;
3. Mining: the increasing commodity prices put a high pressure on wild areas, and the extraction of timber (e.g. in Czech Republic & the Carpathians);
4. Energy projects that aim to develop more hydropower (e.g. in Turkey), wind farms (eg. in Scotland) and bio-fuel as a way of utilizing marginal farmland areas;
5. Development of unsustainable tourism projects like new ski resorts in the Sumava or Balkan mountains.

There is also an increasing tendency in Europe to use semi-domestic herbivores to mimic natural grazing. These projects try to achieve an abundance of wildlife equivalent to that in wilderness areas. Their main argument in support of this is the concern over the loss of biodiversity attributable to the decrease in grazing pressure. However these projects do not take into account that natural grazing pressure was very likely much lower in Europe than in extensive farmland areas. The decline in Spanish dehesas is an interesting example of the consequence of an increase in the demand for meat products.

How to proceed

As Ladislav Miko argued for a new vision of nature conservation for Europe at Eger in 2006 this paper argues for a vision of wilderness for Europe. In addition to the moral argument there is also the financial incentive of linking it with payment for ecosystem services.

According to the EEA database on land use in Europe, over 4% of the land on this continent is already covered with artificial surfaces (infrastructure, housing and industry) and this increased annually by over 110,000 ha

between 2000 and 2006, and is likely to increase in the future.

This means that soon the cover by such surfaces will be roughly 5% of Europe's land area, which must be compensated for by having 5% where the rule of natural processes prevail. That is the area included in the European Wilderness Preservation System should be at least equivalent to 5% of the land area. This does not require additional area but can and must be achieved within the current 21% protected areas.

Finally there are four major recommendations for improving the protection of wilderness areas in Europe and using the opportunities these afford to counter the threats:

1. the commonly agreed definition of wilderness must be used throughout the continent
2. the reintroduction of artificial substitutes for extinct species should not be claimed as wilderness restoration
3. focus on strict protection of those wilderness areas that still exist in Europe that can be used as role models for restoration projects
4. focus on educating professionals and developing a mass communication campaign for wilderness in Europe

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