SCOTLAND'S CHANGING RURAL BIODIVERSITY: POLICY & ACTION NEEDS

SUMMARY OF PRESENTATIONS & DISCUSSION DURING A FORUM HELD AT SNH BATTLEBY CENTRE, PERTH ON 13 MAY 2009

Forum Organisers:

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Scotland's changing rural biodiversity : Policy and action needs

A forum organised by the *Edinburgh Consortium for Rural Research in association with Aberdeen Research Consortium and the Scottish Biodiversity Forum*

13 May 2009, SNH Battleby Centre

Summary of the presentations and discussions

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In 2001, the UK and Scottish governments adopted the goal of halting biodiversity decline by 2010. In Scotland, while much work is being done through the implementation of the Scottish Biodiversity Strategy, with Ecosystem Groups and other committees organised by the Scottish Government and Scottish Natural Heritage (SNH), it is now generally accepted that the target will not be achieved. Many now feel that it was unrealistic and that the speed of climate change is bringing new challenges.

The aim of this forum was to:

- present and discuss current knowledge on the status and values of Scotland's rural biodiversity;
- explore successes and failures in achieving biodiversity goals;
- how these goals are, and could be, integrated into key policies for the future;
- how diverse partners can work together at landscape and other scales to achieve biodiversity and other goals.

***Note**: In the summary of the presentations and discussions which follows, matters of broad agreement are highlighted as bullet points at the start of each section and expanded on later in the section.*

Ecosystem approaches

- *Valuing ecosystem services can help to convey the importance of conserving biodiversity.*
- *It is important to identify the boundaries of the ecosystem being considered.*
- *Ecosystem services may need to be assessed at different scales and may change over time.*
- *Species not currently seen as contributing to ecosystem services may subsequently turn out to be important.*

The Scottish Government is committed to taking an ecosystem approach to conservation management in Scotland. The concept of ecosystem services is seen as a way to value biodiversity, in both economic and social terms, thus contributing to greater understanding of the importance of conserving biodiversity by both politicians and the general public. This naturally leads into consideration of what benefits it brings for human well-being.

This approach, of course, raises a whole series of questions. How do we assess ecosystem services? Do thresholds exist? How can economic and non-economic values be measured objectively? How can biodiversity be managed to limit extremes? In what ways does loss of biodiversity lead to loss of welfare? How should the benefits of biodiversity be distributed? What is the role of protected areas? How does soil contribute to ecosystem services?

When implementing the ecosystem approach, it is important to identify the boundaries of the ecosystem (or land) being considered. As these boundaries are often not obvious, it is often helpful to take a pragmatic place-based approach. However, this can be complicated by administrative or other boundaries of management areas. National Parks, for instance, have defined boundaries – yet ecosystems do not stop at these boundaries. Moreover, it is likely that different ecosystem services need to be addressed at different scales; and that these will need to change over time, for example in response to climate change.

There was general agreement that the ecosystem services approach is a good way of exploring an old problem. However, there were concerns that this approach could mean that species that are not clearly contributing to an identified ecosystem service will be given a lower priority, even though they may subsequently turn out to be important.

Public attitudes

- *The public are increasingly aware of the loss of biodiversity and being actively involved in its conservation.*
- *New ways are needed to help more people understand biodiversity, and to act appropriately.*
- *The biodiversity community needs to interact more closely with public and government.*

It is not just politicians who need to understand the real value of biodiversity and ecosystem services. The public at large need to understand why biodiversity is important.

One element of the Scottish Biodiversity Strategy is to monitor and record key indicators on how the public understand and respond to biodiversity matters. Surveys commissioned by SNH show that the public are increasingly aware of the loss of biodiversity and involved in its conservation. The increase in involvement is hardly surprising since SNH and other organisations have initiated major campaigns to get people out-of-doors to enjoy the countryside. Access is a major theme of these campaigns. However, there is evidence that

many people do not fully understand what biodiversity means, perhaps because it is difficult to define simply. Indeed, it can mean different things to different groups of people, depending on both their background and their interests. SNH, in particular, tries to avoid jargon, and to translate biodiversity objectives into plain language, rather than using it as a shorthand for the biodiversity duty enshrined in legislation.

Rather than trying than to come to a generally-agreed definition, priority should be given to action to manage and conserve biodiversity. New ways to help people understand about biodiversity, and thus to act appropriately, should be sought. For instance, is it possible to define a biodiversity footprint in a similar way to a carbon footprint? Another approach might be to show examples of ecosystem services, such as clean water or natural flood prevention, which are related to aspects of biodiversity.

The biodiversity community needs to interact more with the public and with politicians. Many participants felt that there should be more education of young people about the importance of biodiversity, using existing schemes such as eco-schools, for example by producing appropriate material.

Achievement of biodiversity goals

- *NGOS play vital roles in achieving biodiversity goals.*
- *More targeted action from government is desirable, perhaps through the Scottish Rural Development Programme (SRDP).*
- *Conflicts between biodiversity and land use may be addressed through adaptive management, by collaboration, and through application of an ecosystem services framework.*
- *Although the SRDP focuses on farmland biodiversity, further changes in the implementation of the Common Agricultural Policy (CAP) are needed.*
- *Scientists need to communicate better and, also, to appreciate the constraints on land managers.*
- *The competing national priorities of food, fuel and biodiversity might be compared using the ecosystem services approach*

NGOs play major roles in achieving biodiversity goals – through research, lobbying for legislative change, management of their considerable land holdings, and concern for threatened species. NGOs make much use of volunteers to achieve their targets. Work by the RSPB on corncrake conservation is just one example of what can be done.

While the Scottish Government and its agencies have also been working towards biodiversity goals with various policies and new legislation, including the Scottish Marine Bill, there is scope for more targeted, evidence-based action, particularly with regard to the Scottish Rural Development Programme (SRDP) and its implementation.

However, the achievement of biodiversity goals can lead to conflicts over land use. For example, in upland areas, the maintenance of heather moorland and its associated species depends on achieving a balance between grazing and muirburn. Thus, in these areas, adaptive management is particularly important and should be pursued. Another example is the fragmentation of habitats: a major problem for biodiversity as it inhibits dispersal and recolonisation, and consequently reduces the resilience of areas to climate change. Initiatives to address this problem require collaboration, which is already evident in many areas. For instance, many landowners work together on deer management groups and on grey squirrel and mink eradication schemes. Overall, to achieve biodiversity goals,

stakeholders need to be realistic in considering how to accommodate multiple objectives; the ecosystem services framework can be very helpful in this.

Much managed land in Scotland is farmland where biodiversity decline is a serious issue. Economic forces are major drivers of farmland management, and the European Commission's Common Agricultural Policy (CAP) has had a large influence on what has been happening. Despite existing targeting of the SRDP on farmland biodiversity, further major changes in the implementation of the CAP are needed to make any real difference, especially with regard to High Nature Value farming. However, action will still be driven by funding and the conditions for it. While this usually comes from the state, there are other options. For instance, in the Netherlands there is an initiative for auctioning assets to the general public in order to raise money for conservation action.

Nevertheless, it is not only funding which is a problem. Often in land management, there seems to a lack of communication between land managers and scientists. Scientists need to be trained to communicate better and understand the constraints under which land managers operate. Interactions between government personnel and land managers are also important, and here the SEARS (Scotland's Environment & Rural Services) partnership is proving of benefit.

There is no question that the growing of food, and robust biodiversity are closely intertwined. However, it is probable that overall, with respect to both European and national policies – and particularly with biofuels and food security becoming more of an issue – biodiversity needs may be regarded as of less importance than those of agriculture. In this context, there is a need to compare and review potentially competing priorities, e.g. through the ecosystem services framework.

Biodiversity in relation to policy and planning

- *The SRDP is a vital plank of government policy in integrating biodiversity with other benefits to the rural economy.*
- *Greater value for public money may come from expanding requirements for cross-compliance rather than through further funding of agri-environment schemes.*
- *There is a need to train planners to understand the biodiversity duty of local authorities.*

European policies affect many matters relating to species and habitat protection and therefore have a huge effect on biodiversity policy in Scotland. The SRDP is a major Scottish Government policy which aims to better integrate biodiversity with other benefits in the rural sector.

Many, however, question whether the SRDP is working as well as it might do. Some see it as overly complex, especially for landowners applying for funding, and others suggest that it is failing to achieve an integrated approach. Trade-offs are inevitable between the delivery of integrated environmental outcomes and the complexity of the scheme, and it remains to be seen whether or not the SRDP achieves the right balance. Possibly, public money to support land management activities which deliver public benefits could go further through expanding the requirements under cross-compliance, rather than through further funding of agri-environment schemes. This debate, which concerns the balance between Pillar 1 and Pillar 2 of the CAP, is likely to receive increased scrutiny as we move towards 2013.

In relation to planning matters, there is a clear need for training of planners so that they fully understand the biodiversity duty of local authorities and the consequences of failing to do so. The Minister for Environment has recently written to all Scottish local authorities to remind

them of their legal duty for biodiversity. However, as long as planning matters and environment matters are dealt with under separate government policies and departments, there are bound to be problems and gaps. Indeed, the same problems exist as the Scottish Government strives to connect climate change and sustainability policies – which are equally entwined with biodiversity.

If Scottish local councils – and indeed government organisations – fail in their biodiversity duty, who would take action to prosecute? In England, planning officers have already been taken to court in cases where European biodiversity regulations have been disregarded when granting consents for planning applications, and the Royal Town Planning Institute (RTPI) is considering amending its professional code of conduct to emphasise the necessity to consider biodiversity legislation. There is much yet to be done to integrate biodiversity into planning, though changes in attitude are needed as much as meeting the minimal requirements posed by legislation and regulation.

Working together

- *Significant improvements in habitat networks are essential.*
- *Such networks must be treated from a far wider perspective than biodiversity.*
- *Although the dominant approach to delivering nature conservation benefits so far has been top-down, more local approaches may be the best way forward.*

So, how are biodiversity goals going to be achieved?

Fragmentation of habitat is a major danger for species survival and biodiversity more widely, including the provision of ecosystem services. Thus, a key need is for significant improvement in habitat networks, whether in agricultural/forestry areas, through greenspaces in urban areas, or by linking together community woodlands. This is especially true in the context of climate change.

Consequently, such networks should be approached from much wider perspectives than only biodiversity. For instance, the Edinburgh and Lothians habitat network has tried to include recreation, forestry, landscape and agri-environment benefits, all of which can be linked to sustainable development messages. Green networks and urban greenspaces are often focussed on improving the quality of life but have, as an outcome, increased levels of biodiversity.

Until now, the dominant approach to delivering nature conservation benefits has been top-down, with small groups developing action plans. More local approaches, such as Local Biodiversity Action Plans/Partnerships, with local committees and local funding – possibly through the SRDP's Regional Proposal Assessment Committees (RPACs), may be the way forward. Such approaches are more flexible and simple, and emphasise opportunity, reward innovation, and respect the views of non-specialists. Many people agree that better integration is achieved at the local level, rather than trying to achieve targets as a national outcome. If matters are kept simple and at a spatial scale that people can understand and identify with, they will take possession of agreed actions and projects - and targets will be achieved.

The way forward – the European perspective

A European Commission conference on biodiversity, held in Athens in April 2009, issued a forward-looking message regarding the future biodiversity policy of the European Union. This Message from Athens produced an eight-point plan for European biodiversity:

1. A vision of why biodiversity matters
2. A better understanding of where we are and what more we need to do
3. A fully functioning network of protected areas
4. Biodiversity outside protected areas
5. Biodiversity and Climate Change
6. Global biodiversity
7. Integration of biodiversity into other policy areas
8. Funding

The conference also recognised that the 2010 target would not be met, and stated that "The post-2010 target should be ambitious, measurable and clear. It should maintain the emphasis given to the intrinsic value of biodiversity while also recognising the value of healthy and resilient ecosystems and the services they provide."

These eight points are also relevant for Scotland and all were touched on during the conference. More attention needs to be paid to Scotland's changing biodiversity and to ways of helping Scottish species and habitats adapt to the changes that are already happening.

Acknowledgements

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Forum Programme – 13 May 2009

Welcome & Overview	Martin Price (UHI)
2010 biodiversity targets, challenges for biodiversity in rural Scotland	Greg Mudge (SNH)

Theme 1: Does biodiversity matter? To whom?

Valuing biodiversity: ecosystem functioning, ecosystem services etc. in a European context	Roy Haines-Young and Marion Potschin (Centre for Environmental Management, University of Nottingham)
Biodiversity awareness and involvement in Scotland	Rachel Bishop(Progressive Partnership Ltd)

Theme 2: Successes and failures in achieving biodiversity goals; and why

Management for biodiversity by NGOs	Paul Walton (RSPB)
Conservation in protected areas and the wider countryside	Ed Mackey (SNH)
Managing conflicting goals in the uplands: consequences for biodiversity	Steve Albon (Macaulay Institute) and Steve Redpath (University of Aberdeen)
Agricultural land management	Davy McCracken (SAC)

Theme 3: Integrating biodiversity in policy goals

Integrating biodiversity goals in the SRDP	Jo O'Hara (Scottish Government)
Integrating biodiversity objectives in planning	Michael Oxford (Association of Local Government Ecologists)

Theme 4: Working together to achieve multiple goals across sectors and scales

Habitat networks: linking across scales and land uses	Duncan Ray (Forest Research)

Summing up: Implications for policy and action: 2010 and beyond	Allan Watt (CEH)