

What is the future of biodiversity in the uplands?

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As I listened to the contributions to this conference, I could not help but ask myself the big question suggested by the conference title: what is the future of biodiversity in the uplands? Unfortunately, I left feeling uncertain.

There are reasons to be pessimistic. As James Pearce-Higgins and Colin Beale pointed out, 'global climate change is arguably the most pressing environmental issue of our time' and the consequences for upland biodiversity could be drastic. Climate change may already be having an effect on upland birds through altered phenologies, productivity or survival rates, but the responses of individual species will differ, making broad statements and the development of management strategies extremely difficult. Graham Sullivan reported the results of site condition monitoring and the fact that only 60% of upland features are in favourable condition (i.e. 40% are unfavourable) and Jeremy Milne highlighted the fact that there is no real shared vision for the uplands with poor communication between the different stakeholders.

But there are also reasons to be hopeful. There is a great deal of work going on that is trying to reverse the decline of biodiversity. Pip Tabor highlighted several projects: the efforts that are being made to address the decline of the black grouse in the Southern Uplands; the 'Linking the Ling' project to enhance the declining heather coverage in Upper Nithsdale; and a project to enhance the juniper population. While such projects are very much dependent on securing funding from a variety of sources (and therefore usually short-lived), they illustrate the practical activity that is underway to engage with land managers and influence land management.

There are, then, big challenges, but also concerted efforts to deal with those challenges. I left the conference feeling uncertain, however, because biodiversity in the uplands faces so many different challenges and it seems that its future depends on the degree to which all the interested stakeholders can work together to face these challenges.

The future of upland biodiversity depends upon...

...climate change and our response

Climate change is expected to change the nature of the uplands with reductions in the extent of less resilient habitat types and with many species expected to go extinct. Models suggest that some upland habitats will be reduced to small isolated areas, making it difficult for specialist species to move with changing climate regimes. While we cannot be certain how the climate is going to change, we need to work out how best to manage the uplands so that biodiversity can adapt. There is, here, a clear issue to do with how research and policy are connected. Policymakers need robust research upon which to base their policies and researchers have to be keyed in to the sorts of research policymakers need. At the same time, everyone has to accept that there is a great deal of uncertainty in this field. Most importantly, however, any suggestions about how best to manage the uplands so that biodiversity is conserved need to consider the interests of those who manage the uplands. Researchers and conservationists need to work with upland land managers to explore ways that the conservation of biodiversity can be achieved whilst also allowing upland businesses to achieve their goals.

...the future of farming, sporting interests and the rural economy

The management of the uplands depends to a large extent on the viability of rural businesses. But farming is changing. The development of Land Management Contracts will enable farmers to generate some income from undertaking measures for biodiversity, but in

the long-term the nature of such agricultural support systems is likely to change as the Common Agricultural Policy changes. So there are big questions to do with the degree to which agriculture support systems in the future will be able to help biodiversity. Equally, large areas of our uplands are managed by sporting interests and the future of upland biodiversity will depend to a significant extent on the management regimes followed in these enterprises. More broadly, upland land management contributes to, and depends upon, a vibrant rural economy. The future of upland biodiversity will depend on what happens economically and on the nature of rural development.

...good communication between all stakeholders

The biggest question mark over the future was, for me, evident in who the speakers at this conference were, what they were speaking about and who they were speaking to. This was effectively a conservation conference. The speakers were, on the whole, academics, researchers and representatives from organisations involved in conservation projects. It was striking that there were very few landowners, farmers and estate managers. This only served to emphasise the gulf that exists between the different stakeholders in upland land management.

Since the majority of the uplands are not managed directly by conservationists, developing good links with other land managers is vital if conservation in the wider countryside is to be delivered. But the division of the social world into opposing, entrenched 'camps' still seems as strong as it ever was. Conservationists hold conferences and speak to other conservationists or at least similarly aligned people. Upland estate managers engage in their own networks. The two groups rarely communicate in a meaningful way, although initiatives such as Scotland's Moorland Forum get some of the stakeholders round the table.

Ultimately, the lack of engagement with the conference from land managers points to *the* major issue that needs to be addressed. The key issue revolves around the degree to which those involved in upland land management can work together to develop land management practices that will enable different stakeholders to achieve their own objectives whilst also conserving biodiversity.

Conservationists therefore have to find ways of communicating with upland land managers. At present, conservationists and other land managers speak different languages and use different vocabularies.¹ Such linguistic difference highlights the conceptual and actual distance between social groups. Conservationists will also have to find ways of engaging in other stakeholders' networks. Only by making an effort to speak to others will the distance between stakeholders gradually lessen. Equally, conservationists and land managers have to listen to each other. So often, when individuals involved in land management get together, whether they are conservationists or traditional estate managers, there is a lot more that connects them than separates them. They both want to manage the land well; they both have a deep understanding of their area. They may disagree on forms of management and how to achieve goals, but that is fine – disagreement leads to discussion and debate, which is healthy. We need debate and talk, not antagonism.

...scientists and policymakers communicating better

Rob Brooker highlighted the current trend whereby policymaking is outstripping the supporting science. Policy documents can be produced, making specific claims about, for example, how to adapt to climate change, without a clear scientific basis. This is odd given the current popularity of 'evidence-based policymaking', but perhaps necessary in a context where policy responses are needed more quickly than the underpinning science can be undertaken. Better communication between policymakers and researchers is needed so that

¹ For example, conservationists speak about preventing wildlife crime rather than ensuring adherence to wildlife law. For those involved in land management, the implication is that conservationists see them as potential criminals rather than responsible land managers. Equally, conservationists talk about 'biodiversity', whereas other land managers do not. Language matters.

researchers are directed to genuine policy needs and policymakers are made more aware of what research can deliver.

...conservationists engaging more thoroughly with the social sciences

The recognition that the conference was attended by a small part of the spectrum of those with an interest in upland land management was compounded by the notable absence of social scientists. In the context of the need to develop better communication between different social groups, it is striking that social scientists are not involved in helping bridge the gap. The future of biodiversity in the uplands depends on *people* doing things, working together and developing policy. Yes we need ecological science, but, ultimately, the future of biodiversity in the uplands is about *people* acting. Equally, conservation is itself a social practice and if conservationists are going to engage with social scientists, they have to recognise that their own practice must be open to scrutiny.

...conservationists critically reflecting on conservation itself

Althea Davies highlighted another challenge that faces conservation: if conservationists want to secure the future of upland biodiversity, they will have to critically reflect upon their own ideas and ways of seeing the uplands. Conservation and environmental management is underpinned by ideas of the natural world that ultimately feed into management practice. Conservationists therefore need to ask themselves some difficult questions. In the context of change, do they have to abandon their relatively rigid ideas of what the uplands should be like (and what will that mean for concepts like 'favourable condition')? How can conservation, with its designated sites, accommodate change? What is conservation aiming at? Is the goal to reproduce some sort of utopian natural past, and if so why? Do conservationists have to move from 'what is natural' to 'what do we want uplands to be like'? In answering these questions, conservationists need to engage in wider debate about what the 'nature' is that they are trying to conserve. For many, such introspection gets in the way of achieving the goals of conservation, but it can only help in developing a robust and defensible approach to conservation.

Conclusion

The future of biodiversity in the uplands therefore depends on many different but inter-related issues. There is a need for appropriate scientific research, effective policymaking and creative land management. Above all however, there is a need for land managers, conservationists, policymakers and researchers to work together to find solutions to the immense challenges facing the uplands today.

Ultimately, while I left the conference feeling uncertain about the future of biodiversity in the uplands because of the many different challenges that these areas face and because of the complexity of the responses that are needed, I also left with a renewed sense of urgency. The challenges are great, but not insurmountable. As we move forward to develop new upland initiatives that will contribute to the delivery of the Scottish Biodiversity Strategy, we need to ensure that we reach out to all the relevant stakeholders and work together to conserve upland biodiversity in a vibrant social and economic context.