

**British Ecological Society Scottish Policy Group
Horizon Scanning Meeting
Summerhall, Edinburgh, 17th June 2014**

Summary

Members of the British Ecological Society's Scottish Policy Group, staff from the Scottish Government and Scottish Natural Heritage, convened in Edinburgh on 17th June to discuss emerging issues with implications for both research and policy. This event provided an opportunity to consider several issues of significance to environmental management and to think about where policy and ecological research may be lacking. Perhaps most importantly, this informal event allowed networking between researchers, practitioners and decision-makers, and resulted in an undertaking to repeat the exercise in summer 2015.

The main points to emerge from the evening workshop were:

1. The need for greater communication between scientists and policy-makers. Ecologists need to be better at understanding what the users of research require and to work with them to design studies from the start so that these are answering policy-relevant questions; engaging in trans-disciplinary, as well as interdisciplinary research. Meanwhile, policy-makers must be more adept at communicating with researchers to tell them what these policy-relevant questions are. Research career paths should provide training and offer rewards for engagement with policy-makers.
2. The need to be more fleet of foot in preparing risk assessments to determine which invasive non-native species are major threats to native flora and fauna and where further action is required. Dealing with risk and conveying this to policy colleagues in the absence of robust evidence was also discussed. Regular horizon scanning by standing groups of experts could help to identify emerging threats and there was a suggestion that the BES could play an important role in facilitating this.
3. The ongoing management of invasive non-native species was highlighted by both scientists and policy-makers as a research gap. Finding an expert on particular species that pose a threat is relatively straightforward. It is more challenging to find evidence on how to control and manage a non-native species when established. Evidence-based ecological advice on the different options to manage invasive non-native species, with research into these options, is important.
4. Management of conservation at the landscape-level has been discussed a great deal by policy-makers and researchers but there is a need now to work out how to do this practically. There were questions amongst participants regarding whether a drive towards an ecosystem approach to conservation would promote biodiversity conservation in the wider landscape.

Topic-specific discussion

Non-Native Invasive Species:

- The process of identifying invasive non-native species needs to be more proactive, rather than reactive. The ecologists in the group suggested that one approach could be to prepare a synthesis report outlining which species are on the horizon as a major threat. Regular horizon scans could be carried out by a standing group of experts. The BES Invasive Species Special Interest Group (SIG) could play a role here, either in running the regular horizon scan or in prioritising from a long-list of species identified by other mechanisms. Scottish Natural Heritage (SNH) hosted an horizon-scanning workshop that identified a long-list of potential invasive non-native species. The Invasive Species SIG could suggest a short list of priority species based on this.
- The UK needs to be proactive in specifying the inclusions and exclusions from the list of species covered by the new European Union Regulation on Invasive Alien Species.¹ The UK needs to find a sensible means of commissioning risk assessment to determine inclusion or exclusion of species from the list.
- Ecologists have an important role to play in determining which species, or group of species, should be subject to risk assessments. The risk assessment process as it exists at present is robust but its application, in terms of to which species it is applied, is not.
- Rapid (e.g. within two weeks) risk assessments are possible but it would be helpful to carry out assessments even more quickly. It could also be useful to apply risk assessments more broadly, as a sifting mechanism, to assess which species are the major threats and where further action is needed.

Research gaps:

- The policy-makers in the group identified that a major gap in research surrounds the management of non-native species. It is relatively straightforward to find experts to advise on species that pose a threat on the horizon but not how to continually manage, for example, an invasive plant species. The provision of advice by ecologists on what management options are available, and research into these options, is important.

Ecosystem Services and Natural Capital

The policy-makers and researchers present shared knowledge about current initiatives ongoing in Scotland with respect to natural capital and ecosystem services. These included:

Natural Capital and Ecosystem Services

- The 'Ecosystem Services Community Scotland' (ESCOM): ESCOM has been formed to identify research ongoing in Scotland with respect to ecosystem services and natural capital. ESCOM

¹ The new Regulation on invasive alien species was published in the Official Journal of the European Commission on 4 November 2014. It will enter into force on 1 January 2015. Further information is available from: http://ec.europa.eu/environment/nature/invasivealien/index_en.htm. [Accessed 26 November 2014].

also provides a link to EU funding opportunities. ESCOM will link to the Ecosystem Knowledge Network (EKN).

- The 'Natural Capital Asset Index': This has been developed by Scottish Natural Heritage (SNH). There is now the potential to develop this into a spatial map for local authorities to use as a planning tool. This will map natural capital locally by sector (e.g. forestry, agriculture).

Ecosystem Services: Pollinators

It was clear from discussion that pollination services are presently a high priority for policy-makers.

- The European Commission is a year into a ban on neonicotinoid pesticides but there is nervousness amongst policy-makers at the European Commission as the evidence for a ban is still limited. The UK was one of the member states to question the robustness of the evidence base. This is therefore an issue still high on the political agenda at Westminster, and in Scotland.
- The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES): IPBES has commissioned an international study on pollinators, starting at the end of June 2014 and lasting for two years.

The 'Science Implementation Gap'

Participants discussed whether interdisciplinary research could help to close the gap between scientific research and its implementation by policy-makers and other users. It was felt that research could be multi-disciplinary or cross-disciplinary but in fact, to be truly effective at informing policy and practice it must be trans-disciplinary, designed in partnership with research users. This would help to build trust between communities of interest, coming together to define issues and managing potential conflicts.

Participants felt that a trans-disciplinary approach to research could work particularly well in relation to ecosystem services. The ESCOM initiative is one means by which the science community can engage with relevant communities of interest, tailoring events to meet their needs and bringing in research from non-scientific sources.

Learned societies, such as the British Ecological Society, represent networks of researchers and have an important role to play in convening scientists to tackle policy-relevant issues. In particular, as acknowledged in discussions regarding non-native invasive species, the BES could play a role in bringing together ecologists in order to conduct rapid syntheses. Participants acknowledged limitations to this approach, with the resulting document perhaps less comprehensive than would be possible over a longer time frame. However there would be clear benefits to policy of the BES bringing people together quickly to consider pertinent issues.

Other Topics Identified

Three additional topics were discussed briefly by participants. These were:

1. Indicators and Monitoring Ecosystem Services

Questions posed included how changes in ecosystem services could be tracked. Participants acknowledged that it is becoming increasingly possible to examine a select few ecosystem services, such as biomass and carbon storage, through remote sensing. Scottish Natural Heritage has moved from monitoring ecosystem service indicators to monitoring ecosystem health, although a question was posed by the ecologists present over the robustness of the link between biodiversity and ecosystem health. Meanwhile researchers at the Centre for Ecology & Hydrology have begun work on ecosystem service monitoring in the context of the Countryside Survey.

2. Protected Areas

The fitness for purpose of the reserve network in Scotland, in light of changing climate, was acknowledged as a good topic for a future meeting of the BES Scottish Policy Group to consider.

3. Landscape level conservation

Management of conservation at the landscape-level has been discussed a great deal by policy-makers and researchers but there is a need now to work out how to do this practically. There were questions amongst participants regarding whether a drive towards an ecosystem approach to conservation would promote biodiversity conservation in the wider landscape.

Further Information

For information about the work of the British Ecological Society's Scottish Policy Group, please contact the BES External Affairs Team: Policy@BritishEcologicalSociety.org.