



British Ecological Society
Agricultural Ecology Group

What can be achieved in the restoration of diverse grasslands? And what will this habitat rehabilitation do for us?

NATURAL
ENGLAND

At the Oxford Belfry, Thame, UK, on 19–20 June 2012

A series of presentations, field trips and poster displays at a conference jointly organised by the Association of Applied Biology, British Grassland Society, Natural England and the BES's own Agricultural Ecology Group, attempted to answer these questions.

Giving the key note speech, Sir John Lawton, talked about grassland restoration in the context of his widely acclaimed paper 'Making Space for Nature', which led to what he called a 'step change' in the government's approach to biodiversity conservation in its Natural Environment White Paper (NEWP) published in June last year.

Sir John's main argument is for More, Bigger, Better and Joined sites, he said, particularly critical for grassland habitats, which declined by 97% between 1930 and 1984. This scale of loss means it will be impossible to halt grassland biodiversity loss without a concerted effort to restore and expand existing protected areas, create further protected sites, and establish a coherent network joining the sites. Sir John's recommendations led to 'Nature Improvement Areas' in the NEWP, all 12 of which will involve some degree of grassland restoration, contributing significantly to overall grassland habitats in the UK. However, Sir John warned that there will be a need to 'mind the gap' in terms of long-term support for the NIAs and after the initial three years of funding, money will need to come from elsewhere. Nevertheless, the 'unprecedented' enthusiasm and creativity Sir John recounted seeing during the NIA process, will give groups the momentum to pursue habitat plans despite limited funding.

Stephen Chaplin (Natural England), setting the 'policy context' of grassland restoration, reiterated Sir John's suggestion that the CAP will become a major source of funding for grasslands, with proposals for the upcoming reform involving baseline measures requiring farmers to retain permanent grassland on their land and protect a minimum of 7% of the acreage as 'Ecological Focus Areas' in order to receive funding. However, he warned that the future scale of CAP funding for grasslands is dependent on a number of factors including the overall budget allocation, split between the two 'pillars', and the allocation between Member States, but that there are few, if any, other funding sources with the CAP's large scale and reach.

The session then turned to the practicalities of grassland habitat restoration and what can be achieved. Richard Pywell (CEH) stressed that, although grassland restoration is often effective, the progression from initial plant communities through an intermediate assemblage to the target community, complete with specialist species, is a complex process influenced by a range of factors. The key constraints, he said, are usually a limited local seed bank – seeds of specialist grassland species tend to be transient, only remaining in the soil for a relatively short period – and high residual soil fertility, especially on agricultural land being reverted to more natural grasslands.

Seed shortages can be overcome however, by sowing seed mixes or using 'green hay' in which harvested grass from a local species-rich site is laid on the restoration area to act as a seed-source. Creating bare gaps also boosts seed establishment and species such as yellow-rattle can be used to suppress dominant grasses, allowing establishment of the desired species. Issues of high fertility are harder to overcome and Mr Pywell stressed that it is best to target sites which are relatively low-fertility as a start for restoration. If high phosphate levels are unavoidable, Mr Pywell suggested that these sites can be restored if they are managed relatively intensively for the first 3 years of establishment. Alternatively, land managers may have to accept more generalised grassland communities, rather than optimum highest-diversity assemblages. Measures to reduce phosphate levels are not generally recommended as they often result in acidic soils. The conference attracted over 80 attendees from a wide range of interest groups with an almost even split between academics, government and policy agencies such as Natural England, and non-governmental representatives including the Wildlife Trusts, as well as a handful of

land managers. This diversity was welcomed as an opportunity for discussion of grassland restoration across the science-policy interface.



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