

Species-rich grassland: habitat management scenario

Objectives:

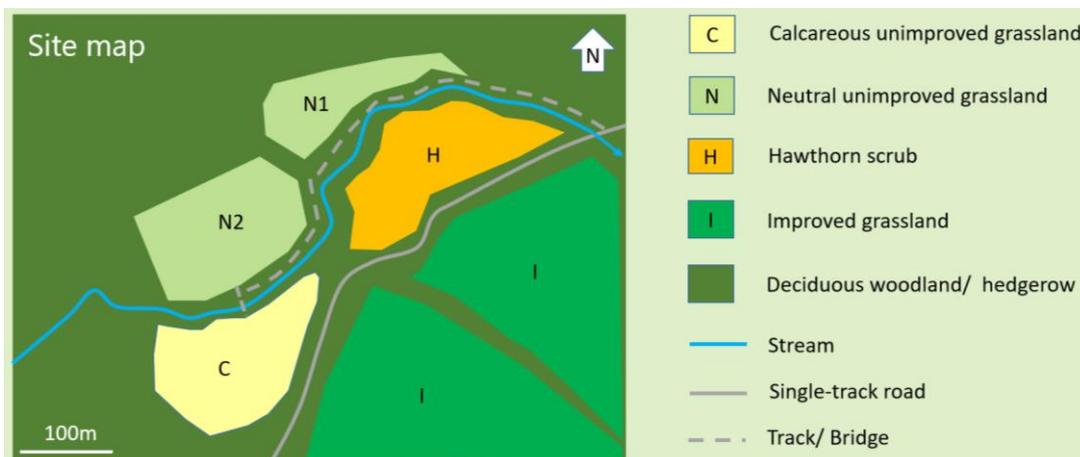
Examine the challenges of bracken encroachment in species-rich grassland.
Evaluate a range of sward management techniques and agri-environment options.
Work as a team to develop and present a management plan with justification.

Context:

Species-rich grassland is defined by a richness score, usually more than 15 and sometimes up to 40 beneficial vascular plant species per square metre, including grasses, graminoids and broadleaf wildflowers.

In this scenario you will develop a management plan for a grassland site, particularly focusing on three areas of unimproved grassland. Each area of grassland has slightly different physical characteristics, and bracken is extensively encroaching in two of the areas. One area has minimal bracken but without management it could spread. The site has further habitats that you could include in your management plan: hawthorn scrub; stream; improved grassland; deciduous woodland. The scenario pack provides a map and site information, as well as a summary of possible management interventions and agri-environmental options. Recommended sources for wider reading and information are available in the pack and below in this document.

Study site:



Team activity:

- Work in a group of around five people.
- Read through the site management scenario slides/ pack, including the physical characteristics, the map, and possible management interventions.
- At this point, you may wish to read the recommended resources or divide them among the group.
- You may also search for example habitat management plans to gain an idea of style, structure and content.
- Each member of your group could take a different role, or act as a different stakeholder.
- As a group, agree on your site management aims and objectives. One aim is required and as many objectives as you think appropriate.
- The group can then develop the detail of the management interventions. There are many possible options, and they all need to be considered from an environmental, economic and social sustainability point of view.
- A monitoring plan is also needed – consider how often and how you would monitor the success of the management interventions.
- Present and justify your management plan.

Resources:

Blakesley, D., & Buckley, P. (2016). *Grassland restoration and management*. Pelagic Publishing Ltd.

DEFRA (2020a). *Statistical data set Livestock prices, finished and store*. Available from: <https://www.gov.uk/government/statistical-data-sets/livestock-prices-finished-and-store>

Farmers Weekly (2020/ current). *Market prices, news and analysis*. Available from: <https://www.fwi.co.uk/prices-trends#/>

Grange, I. (2013) Bracken *Pteridium aquilinum* control on small conservation sites, Miserden, UK. *Conservation Evidence*, 10, 16-19

Grange, I.D. & Swallow, K. (2018) Bracken control in the first year is as good as it gets! *Aspects of Applied Biology*, 139: 67-73

Magnificent Meadows (2020a). *Importance of Meadows*. Available from: <http://www.magnificentmeadows.org.uk/conserve-restore/importance-of-meadows>

Magnificent Meadows (2020c). *Magnificent Meadows*. Available from: <http://www.magnificentmeadows.org.uk/>

Marrs, R. H., Johnson, S. W., & Le Duc, M. G. (1998). Control of bracken and restoration of heathland. VI. The response of bracken fronds to 18 years of continued bracken control or 6 years of control followed by recovery. *Journal of Applied Ecology*, 35(4), 479-490



Natural England (1999) *Lowland grassland management handbook: chapter 6 grazing*. Available from: <http://publications.naturalengland.org.uk/publication/35034>

Natural England (2008a). *Natural England Technical Information Note TIN047 Bracken management: ecological, archaeological and landscape issues and priorities*. Available from: www.naturalengland.org.uk

Natural England (2008b). *Bracken management and control (TIN048)*. Available from: <http://publications.naturalengland.org.uk/publication/35013>

Natural England (2008c) *Bracken (SIN001)*. Available from: <http://publications.naturalengland.org.uk/publication/127007>

Tälle, M., Deák, B., Poschlod, P., Valkó, O., Westerberg, L., & Milberg, P. (2018). Similar effects of different mowing frequencies on the conservation value of semi-natural grasslands in Europe. *Biodiversity and Conservation*, 27(10), 2451-2475. doi.org/10.1007/s10531-018-1562-6

Plantlife (2020) *Saving meadows*. Available from: <https://www.plantlife.org.uk/uk/our-work/campaigning-change/meadows>

Health and safety considerations: Health and safety are the responsibility of the activity leader who must complete a risk assessment for safe surveying on a working farm or outdoor area.