

Wales Grassland and Heathland Ecosystem Group Priority Action

Calcareous Grassland and Heathland of North Wales

Summary

The limestone exposures of north Wales, from east Anglesey to the English border, support the most extensive and floristically varied areas of calcareous grassland and limestone heath in the region (Stevens et al, 2010). The area is of particular importance (in a British and European context) for its drought-prone calcareous grassland with abundant hoary rockrose *Helianthemum oelandicum* (NVC = CG1d), a form of grassland virtually confined to north Wales, and its extensive and varied limestone heath. In terms of grassland NVC communities, the north Wales limestone also supports extensive areas of CG2d (the more northerly form of the community) and outliers of CG2b, CG3 and CG7 at the edges of the geographical ranges. Calcareous scrub-edge vegetation (a rare habitat) occurs at some sites. The scarce Calaminarian (metal-rich) grassland community OV37 occurs in association with calcareous grassland at one of its chief British sites in Flintshire. Limestone heath is represented by H8c and a distinctive herb-rich form lacking western gorse *Ulex gallii*.

Most of the existing limestone grassland and heath is within SSSIs and some is within SACs. However, many sites are in poor condition, largely due to a decline in livestock grazing. A number of sites require increased (or the reintroduction of) grazing and some need extensive scrub management. Expansion of non-native trees and shrubs (especially species of non-native cotoneaster, strawberry tree and turkey & holm oak) is a major threat to the grassland and associated species in some localities (especially to CG1d). Some stands of calcareous grassland have been damaged through agricultural improvement or over-grazing. Some areas of limestone heath are overgrown and may be acidifying through leaf-litter build-up.

Although attention should focus on the major stands of calcareous grassland and heathland on statutory sites, there is potential for restoration or re-creation of grassland/heath outside notified sites, which would benefit ecological connectivity and make existing sites more robust.

CG1, 2, 3, 6 and 7 form the bulk of the Annex 1 Habitat **Semi-natural dry grasslands and scrubland facies: on calcareous substrates**. The limestone heath falls within **European dry heaths** and OV37 within **Calaminarian grasslands of the *Violetalia calaminariae***. These habitats are represented by three corresponding BAP Priority Habitats: **Lowland calcareous grasslands**, **Lowland heathland** and **Calaminarian grasslands**.

Calcareous grassland and limestone heath in north Wales support a wide range of rare, scarce and declining plant species, including a number in Section 42, including wild cotoneaster *Cotoneaster cambricus* at its only UK site, basil thyme *Clinopodium acinos* and juniper *Juniperus communis*. Of note is the presence of important populations of two S42 species which have declined severely in Wales in recent years, frog orchid *Dactylorhiza viridis* (*Coeloglossum viride*) and field gentian *Gentianella campestris*. The flora on Great Orme's Head is highlighted as an Important Plant Area.

There are associated populations of a number of uncommon invertebrates, including S42 species silky wave moth (*Idaea dilutaria*) and unique forms of silver-studded blue (*Plebejus argus*) and grayling (*Hipparchis semele*). Important pearl-bordered fritillary (*Boloria euphrosyne*) populations occur on two sites.

A CCW-funded project ‘improving the view’ has initiated restoration measures (including scrub clearance) on some sites.

Action required

- Increase grazing levels or reintroduce grazing on principal stands of limestone grassland.
- Tackle under-management of heathland through cutting and/or grazing as appropriate.
- Manage invasive scrub and trees, including non-natives.
- Deplete nutrient levels on enriched restoration/re-creation sites.
- Conservation assessment of some lesser-known non-statutory sites.

Priority sites for action

The following is a provisional list. (Main current issues shown in brackets – these may not apply to the whole site.)

- Great Orme’s Head (Pen y Gogarth... SSSI) (undergrazing/non-native species)
- Creuddyn SSSI (undergrazing/scrub)
- Bryn Euryn SSSI (enrichment/scrub)
- Llanddulas Limestone... SSSI (undergrazing/scrub)
- Mynydd Marian SSSI (scrub)
- Bwrdd Arthur SSSI (undergrazing)
- Halkyn Mountain (Comin Helygain... SSSI) (overgrazing/heath burning)
- Prestatyn Hillside SSSI (undergrazing/scrub)
- Moel Hiraddug (non-native species)
- Eyarth Rocks (Cil-y-groeslwyd Woods... SSSI) (scrub)
- Fron Heulog (enrichment)
- Minera (Ruabon/Llantysilio... SSSI) (undergrazing)

Action on SSSI should be discussed and agreed with local CCW staff.

Species Interest

Key Section 42 species

Frog orchid	<i>Dactylorhiza viridis</i>
Field gentian	<i>Gentianella campestris</i>
Basil thyme	<i>Clinopodium acinos</i>
Silky wave moth	<i>Idaea dilutaria</i>
Silver-studded blue	<i>Plebejus argus carnensis</i>
Grayling	<i>Hipparchis semele thyone</i>

Other Section 42 species

Wild Cotoneaster	<i>Cotoneaster cambricus</i>
Juniper	<i>Juniperus communis</i>
Grizzled skipper	<i>Pyrgus malvaea</i>
Pearl-bordered fritillary	<i>Boloria euphrosyne</i>

The project has potential to benefit a range of additional S42 fauna, including:

Skylark	<i>Alauda arvensis</i>
Chough	<i>Pyrrhocorax pyrrhocorax</i>
Adder	<i>Vipera berus</i>
Slow worm	<i>Anguis fragilis</i>
Common lizard	<i>Zootoca vivipara</i> ,

bat species and various other invertebrates.

Other notable plant species

Dyer's greenweed	<i>Genista tinctoria</i>
Spiked speedwell	<i>Veronica spicata</i>
Horseshoe vetch	<i>Hippocrepis comosa</i>
Welsh hawkweed	<i>Hieracium cambricum</i>
Goldilocks aster	<i>Aster linosyris</i>
Spotted cat's-ear	<i>Hypochoeris maculata</i>
Mountain everlasting	<i>Antennaria dioica</i>
Dark red helleborine	<i>Epipactis atrorubens</i>
Dwarf thistle	<i>Cirsium acaule</i>
Autumn lady's tresses	<i>Spirathes spiralis</i>
Spring sandwort	<i>Minuartia verna</i>

and others

Reference

Stevens, D. P., Smith, S. L. N., Blackstock, T. H., Bosanquet, S. D. S., Stevens, J. P. 2010. *Grasslands of Wales. A survey of lowland species-rich grasslands, 1987–2004*. University of Wales Press, Cardiff.