Wales Grassland and Heathland Ecosystem Group Priority Action

Elan Valley Grasslands: Species-rich neutral and acid grassland

Habitat summary

No habitat has suffered more from the agricultural intensification of the past few decades than unimproved neutral grassland. The habitat remains very vulnerable to land improvement and recent evidence suggests that sites are still being lost (Stevens et al, 2010).

Cynosurus cristatus - *Centaurea nigra* grassland (MG5), the main unimproved grassland of dry neutral soils in Britain, is still widespread in Wales, but only about 1,500 ha remain compared to over 1 million ha of improved grassland. Although stands of MG5 are often small and fragmentary, a few concentrations remain. MG5 is the core community for the BAP priority habitat **Lowland meadows**.

MG5 is often found in association with the species-rich acid grassland *Festuca ovina – Agrostis capillaris – Galium saxatile* grassland, *Lathyrus linifolius – Stachys betonica* sub-community (U4c) in the central parts of Wales. Only 55 ha of this lowland sub-community have been mapped in the principality. Lowland U4 forms part of the BAP priority habitat **Lowland dry acid grassland**.

A number of uncommon vascular plants are associated with MG5 and U4c, including the S42 species *Vicia orobus, Dactylorhiza viridis, Euphrasia pseudokerneri* and *Gentianella campestris*. MG5 is an important community for certain invertebrates, particularly bumblebees, largely due to the variety and abundance of nectar-rich flowers in the community. Some MG5 and U4c sites are important for waxcaps and other grassland fungi.

Elan Valley Grasslands summary

The Elan Valley supports some of the richest examples of MG5 grassland in Wales, accompanied by equally species-rich stands of U4c. Restrictions on usage of fertilisers and herbicides since the construction of four reservoirs have limited agricultural improvement in the Elan Valley. The stands of MG5 are situated on the upland fringes and have a somewhat unusual species composition, making them akin to the upland edge MG3 meadows of northern England. Characteristic species accompanying the typical range of MG5 plants include *Sanguisorba officinalis, Vicia orobus* and *Hyacinthoides non-scriptus*. As well as sites in the Elan Valley, the project area includes a few sites with similar MG5 situated close to Rhayader village.

The Elan Valley and surrounds is particularly important for the Section 42 plant *Vicia orobus*, with eight grassland sites with records in excess of 100 plants (out of a total of 18 such sites recorded across Wales by the Lowland Grassland Survey of Wales).

An existing project in the Elan Valley, funded by CCW and the Elan Valley Trust, is working to manage and restore areas of MG5 grassland with traditional hay meadow management. Future action should be informed by the results of this work. Some potential restoration sites have already been identified by a scoping study carried out 2001 (Hayes & Sackville Hamilton, 2001).

The project boundary has been drawn to include existing sites and immediately adjacent land, but additional land in the general area may be considered for grassland restoration if it is more suitable. Restoration sites may include more improved grassland where soil nutrients are not excessively high or other habitats of lower conservation value such as dense bracken, coniferous woodland or species-poor acid grassland.

BAP area: Powys

The Elan Valley Grasslands project area includes

1. Principal areas of MG5 and U4c grassland in and around the Elan Valley.
2. Adjacent land with potential for restoration.
3. Several *Vicia orobus* populations, including 8 with population counts greater than 100.

Action required

- Maintain appropriate very low-input hay and/or pasture management based on results of current Elan Valley Meadows Project.
- Improve ecological connectivity through restoration or re-creation of sites, focussing principally on land around high-quality MG5/U4c sites.
- Consider sward enhancement with local green hay or seed for appropriate sites.
- Update information on uncommon species, especially *Vicia orobus*.

Key MG5/U4c conservation sites in the project area

Site name	**Communities**	**S42 species**
Caeau Troed-rhiw-drain SSSI & annexe	MG5a (U4c)	Vo*,Gc,Te
Hirnant Meadows SSSI	MG5a	
Cae Henfron SSSI	MG5a	Vo*,Gc
Rhos yr Hafod SSSI	MG5a,MG5c	Vo*,Gc,Te,Pb
Caeau Penglaneinon SSSI	MG5a,MG5c,U4c	Vo*
New House Meadow SSSI	MG5c	Vo*
Nant-y-dernol	U4c	Vo
Cae Cwm-bach SSSI	MG5a	Vo*,Te
Gilfach Farm (SSSI)	U4b,U4c	Vo
Cae Ty'n-y-graig (Caeau Cnwch… SSSI)	MG5a	Vo*

Other sites

Nannerth Fawr	Vo*
Aberglanhirin Meadow	MG5a
Ty'n-y-llidiart Pastures	MG5a
Cae Cnwch	(MG5a), Te
Cae Coed-gleision	(MG5a)
Wern Meadows	MG5a
Upper Nantserth	(U4c)

* population estimated at greater than 100 plants

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

Species Interest
Key Section 42 species

Wood bitter-vetch	*Vicia orobus*

Other Section 42 species

Globeflower	*Trollius europaeus* (Te above)
Lesser butterfly-orchid	*Platanthera bifolia* (Pb above)
Fragrant orchid	*Gymnadenia conopsea* (Gc above)

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

Skylark	*Alauda arvensis*
Adder	*Vipera berus*
Slow worm	*Anguis fragilis,*
Brown hare	*Lepus europaeus*,

Bat species and various invertebrates.

Other notable plant species

Greater burnet	*Sanguisorba officinalis*
Petty whin	*Genista anglica*
Dyer's greenweed	*Genista tinctoria*
Greater butterfly-orchid	*Platanthera chlorantha*
Moonwort	*Botrychium lunaria*
Mountain violet	*Viola lutea*
Meadow thistle	*Cirsium dissectum*

References

Hayes, M. J. & Sackville Hamilton, R. 2001. *Conservation and restoration of species-rich grasslands in the Elan Valley*. Phase 1 Final Report. IGER, Aberystwyth & Elan Valley Trust.

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.