

2.4 Montane Heath and Montane Scrub

2.4.1 Habitat Description

Montane heath and scrub includes the UK BAP habitat Mountain Heaths and Willow Scrub, and the Dumfries and Galloway Local Biodiversity Action Plan habitats montane moss-heath and montane scrub. They are very important for their non-flowering plant, fungi and lichen and invertebrate assemblages. These habitats are restricted within UK and are only found in the harshest habitat of the Biosphere, above the tree line (generally above 600m).

Montane heath vegetation is dominated by mosses, club-mosses and lichens, with woolly-fringe moss particularly frequent. Biosphere High Focus species golden plover may nest here and golden eagle will hunt across montane moss-heath. In the Biosphere it is only found in small areas on the highest hills of the Afton Uplands, Carsphairn and the Galloway Hills (Corserine (SAC/SSSI) and Beninner, Moorbroch, Cairnsmore of Carsphairn, Cairnsmore of Fleet (NNR and SSSI) and Merrick Kells (SSSI, SAC).

Montane scrub consists of low-growing, crooked trees and shrubs, predominantly willow, including the High Focus species downy willow and juniper, but may also include stunted oaks and birches. It lies in the transitional zone between woodland and moss-heath, where low temperatures, windy conditions and short growing season restrict the growth of tall woody species. Only a few small remnants of montane scrub survive in Britain, mostly on inaccessible ledges, and occasionally on lightly grazed steep rocky slopes or boulder fields, with some surviving in the Galloway Hills within the Biosphere. This habitat may provide a food source/habitat for the High Focus species black grouse. Within the Biosphere it is present on the Merrick (SAC/SSSI).

The condition of montane heath and scrub in the Biosphere is not known. The only montane habitat type assessed individually is montane acid grassland, present within the Merrick Kells SSSI/SAC, and this is considered to be in poor and deteriorating condition (habitat assessment section of GSAB 2014⁵). The management prescriptions therefore focus on measures to bring montane habitat into good condition. Generally it is thought that the small remaining areas are still adversely affected by grazing pressure with the added recent pressures from hill walking, mountain-biking, quad/trail bikes, potential infrastructure developments and climate change. The extent of montane scrub and heath within the Biosphere and areas above 600m where it could occur are shown in Map 4.

2.4.2 Conservation Objectives

The conservation objectives for montane heath and scrub are:

⁵ Galloway and Southern Ayrshire Biosphere, Natural Heritage of the Biosphere Report. Available at: <http://www.gsabiosphere.org.uk/what-we-do/conservation/>

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- To establish the extent and condition of montane heath and scrub throughout the Biosphere.
- To reduce fragmentation and create contiguous stands, particularly montane scrub on cliffs and slopes.
- To enhance the condition of existing areas of montane heath and scrub.

2.4.3 Management

The primary management tools for montane heath and scrub in the Biosphere are:

- Grazing
- Access restriction
- Replanting

2.4.3.1 Grazing management

Grazing management of montane habitats is challenged by their remote and exposed nature. Due to the extreme conditions (altitude, climate, exposure) the rate of growth of montane habitat is slow and therefore the carrying capacity of habitat is low compared to habitats at lower altitudes.

Suggested Actions:

- The extent of existing montane scrub is currently limited to inaccessible crags and steep slopes, which helps restrict access by sheep and wild herbivores. As this habitat is especially sensitive to grazing pressure, any expansion of its extent would require decreasing the grazing pressure or complete grazing exclusion.
- Fencing could be erected in suitable locations to exclude grazing and encourage recovery of montane scrub habitat and species associated with this habitat type.

2.4.3.2 Management of public access and recreation

The montane zones fall within the high elevation walking routes in the Galloway Hills, such as the Merrick summit path, the Rhinns of Kells ridge, or the Range of the Awful Hand ridge, including Benyellary, Merrick, Kirriereoch Hill, Shalloch on Minnoch and Tarfessock. High visitor pressure in the montane areas might lead to damage and erosion of montane habitats and disturbance to animal species.

Suggested Actions:

- Maintenance and repair of footpaths to help limit damage of more sensitive areas
- Provide information on the natural interest of montane habitats and the hill users can reduce and minimise their impact on montane habitats

2.4.3.3 Replanting

Replanting, using local provenance stock, could be carried out in appropriate areas to increase the extent of the habitat. Grazing, by domestic and wild herbivores, may then have to be controlled/excluded.

2.4.4 Example Projects

- FCS willow cuttings and willow and juniper nursery projects, planting of downy willow and juniper in Autumn 2014 on Bennan Hill part of Merrick SAC by Cree Valley Community Woodlands Trust and Forestry Commission Scotland, with fencing erected to exclude grazing. Further information given in Section 4.8.
- Monitoring of woodland fringe by FCS.
- Maintenance of Merrick footpath.
- Although outwith the Biosphere, creation of montane scrub at Carrifran (SAC/SSSI) in the Moffat hills is an example of restoration⁶.
- PhD work carried out within the Biosphere entitled ‘Assessing the potential for recovery of degraded montane heaths’ funded by SNH and supervised by Aberdeen University, SNH, Macaulay Land Use Research Institute and the Centre for Ecology & Hydrology⁷.

2.4.5 Considerations

- Emerging tree species pests and diseases when establishing new montane habitats.
- Remoteness of sites when planning and delivering projects.
- Cost of maintenance and labour required.
- Managing public access to vulnerable areas on the hills.

2.4.6 Opportunities

- Raising public awareness of current and proposed projects.
- Expansion of montane scrub habitat in monitored locations where remnant populations survive and prevention of muirburn and herbivore damage to the habitat.
- Collection and propagation of locally rare native species.
- Expansion of woodland fringe habitats is incorporated in the restock proposals of the Forestry Commission Scotland Forest Design Plans.

⁶ <http://www.carrifran.org.uk/about/what-we-have-achieved/silviculture-2/>

⁷ Armitage, H. (2006) Assessing the potential for recovery of degraded montane heaths. In: CAPER 2006, 31st Annual Meeting. Book of Abstracts, Edinburgh, Pollock Halls, 10th - 12th April 2006. NERC/Centre for Ecology and Hydrology, 17. (Unpublished)

2.4.7 Further Information

JNCC Habitat Description: <http://jncc.defra.gov.uk/page-3556>

Montane Scrub SNH Publication: <http://www.snh.org.uk/publications/online/heritagemanagement/montanescrub/whatis.asp>

Borders Forest Trust: <http://www.bordersforesttrust.org/places/wild-heart/>