2.3 Purple Moor-Grass and Rush Pasture

2.3.1 Habitat Description

Purple moor grass and rush pasture is a priority UK Biodiversity Action Plan habitat that occurs on poorly drained sites in lowland to mid-altitude areas with high rainfall. Broadly there are two types of purple moor grass and rush pasture; purple moor grass dominated or rush dominated pasture. Both, however are found in similar conditions on moist to wet, acidic to basic soils in the enclosed agricultural lowlands. It is often found within a mosaic of other grassland habitats and is associated with acid grassland, neutral grassland, wetland and heathland habitats.

Purple moor grass dominated examples of this habitat are characterised by being associated with a rich assemblage of grassland and heath species such as tormentil (*Potentilla erecta*) marsh violet (*Viola palustris*), devil's-bit scabious (*Succisa pratensis*), cross-leaved heath (*Erica tetralix*), bog myrtle (*Myrica gale*), velvet bent (*Agrostis canina*). Where soils are more basic, species such as wild angelica (*Angelica sylvestris*), water avens (*Geum rivale*), valerian (*Valeriana officinalis*) and marsh hawk's-beard (*Crepis paludosa*) can be found. It is important that this habitat is not confused species poor rush dominated farmland or extensive areas of species poor purple moor grass dominated peatland, particularly blanket bog, which in these circumstances can be an indicator of poor bog condition.

High Focus Biosphere species black grouse, golden plover and curlew are associated with this habitat along with other species of conservation concern including snipe, redshank, lapwing, barn owl and skylark.

The extent of purple moor grass and rush pasture within the Biosphere could not be accurately determined as little ground has been classified specifically as purple moor grass and rush pasture. However, it is understood that this is a rare and highly localised habitat, found up to 300m above sea level. It is known however to be present at SSSI sites: Skyreburn, Cleugh, Bailliewhirr and Dowalton Loch.

As an indication of habitat extent, records of whorled caraway (*Carum verticillatum*), a species associated with the priority habitat and with a stronghold in Scotland in the Biosphere were used to indicate where purple moor-grass and rush pasture is likely to be present. In addition, the associated habitats occurring below 300m were also mapped to indicate potential distribution (Map 3).

The condition of purple moor grass and rush pasture in the Biosphere is not known for any extent of this habitat, as it is not listed as a designated feature in any of the open ground designated sites. The management prescriptions below will therefore include general management measures appropriate for such a habitat.

2.3.2 Conservations Objectives

The main conservation objectives for purple moor grass and rush pasture are to:

- Better understand its distribution and condition in the Biosphere and ascertain if management is appropriate.
- Maintain the dominance of species rich grassland communities extending over the dry knolls and wet flushes that are typical of this habitat.
- Restrict the extent of scrub encroachment, especially gorse, willows and bracken.
- Ensure areas are not fertilised, which increases nutrient levels, or reseeded with grass mixes.

2.3.3 Management

The main management tool for purple moor grass and rush pastures is grazing. Light to moderate grazing helps to retain large, palatable wetland plants such as meadow sweet, angelica, valerian, ragged robin, and marsh hawk's beard, and prevent vigorous, dominant species, such as purple moor grass and rushes, from outcompeting smaller plants. Without grazing, purple moor grass and rushes could suppress less vigorous plants. The suggested actions are intended to indicate measures that can be adopted. Particular funding schemes may have their own guidance and prescriptions that should be adhered to (eg. agri-environment schemes).

Suggested Actions:

- Managing appropriate grazing levels, preferentially with cattle or a combination of cattle and sheep (suggested stocking rate is 0.5-1LU/ha).
- Introducing/maintaining grazing regimes with the aim of achieving a mosaic of sward heights, with patches of taller vegetation that provide good nesting areas. Some trampling and poaching is beneficial, providing habitat for seeds, but care should be taken to remove stock before any significant poaching occurs. Light summer grazing can help to maintain an open sward, but heavy grazing should be avoided during the flowering and nesting season.
- Typically, grazing by cattle in Spring and Autumn helps to keep the more vigorous *Molinia* and rushes in check as *Molinia* is more palatable to cattle in the Spring. Overgrazing should, however, be avoided in bird nesting areas. Light grazing during the winter, outwith wetter periods, may be possible at some sites if the sward needs to be reduced in height and broken up further, but great care is needed not to damage the habitat by poaching particularly during periods of wet weather and in areas where supplementary feeding is required.
- If a site has not been adequately grazed for a while it may be advantageous to cut some of the denser rushes (and remove cuttings) as the new rush growth will be more palatable to cattle.

2.3.4 Example Projects

- None known, however, management to improve condition of this habitat continues on designated sites.

2.3.5 Considerations

- Lack of knowledge of habitat extent and condition which makes targeting management difficult.
- Where found within a habitat mosaic, management has to reflect the needs of the surrounding habitats as well (eg. blanket bog).
- Some areas may also be degraded due to artificial drainage, so ditch blocking may be required.
- Loss of habitat though afforestation, draining, agricultural improvement.

2.3.6 Opportunities

- Working with land owners to host land management good practice events to demonstrate habitat characteristics and management.
- Working with volunteers to identify and survey the extent of this habitat eg. through DGERC
- Funding opportunities through agri-environment schemes.

2.3.7 Further Information

A Guide to Upland Habitats: Surveying Land Management Impacts - Volume 1 (SNH):
http://www.snh.gov.uk/publications-data-and-research/publications/search-the-catalogue/publication-detail/?id=2094

A Guide to Upland Habitats: Surveying Land Management Impacts – Volume 2 (SNH):
http://www.snh.gov.uk/publications-data-and-research/publications/search-the-catalogue/publication-detail/?id=116

Technical Note TN586 Conservation Grazing Of Semi-Natural Habitats (SRUC):
http://www.sruc.ac.uk/downloads/download/473/tn586_conservation_grazing_of_semi-natural_habitats

SNH Guidance Note Purple moor grass and rush pasture (UK BAP priority habitat):
http://www.snh.gov.uk/docs/A1509888.pdf