

Habitat Action Plan: Purple moor grass & rush pastures



1. Introduction

Purple moor grass and rush pastures occur on poorly drained, usually acidic soils in lowland areas of high rainfall in Western Europe. In the UK, they are found in South West England, particularly in Devon, Southern Wales where it is referred to as Rhös Pasture, South West Scotland, perhaps extending as far north as Northern Argyll and in Northern Ireland, especially Fermanagh.

Their vegetation, which has a distinct character, consists of various species-rich types of fen meadow and rush pasture. Purple moor grass and rushes, especially sharp-flowered rush, are usually abundant. Just as the best examples of lowland heath contain a wide range of plant communities, so the same is true for this habitat: the characteristic plant communities often occur in a mosaic with one another, together with patches of wet heath, dry grassland, swamp and scrub.

Key species associated with purple moor grass and rush pastures include: wavy St. Johns-wort, whorled caraway, meadow thistle, marsh hawk's beard, greater butterfly orchid, lesser butterfly orchid, marsh fritillary butterfly, brown hairstreak, narrow-bordered bee hawkmoth, curlew, snipe and barn owl.

Purple moor grass and rush pastures are a priority for nature conservation because they are highly susceptible to agricultural modification and reclamation throughout their range.



2. Current status

2.1 National

Purple moor grass and rush pastures are a priority for nature conservation because they are highly susceptible to agricultural modification and reclamation throughout their range. In Northern Ireland, between 1990 and 1993, the rate of loss of fen meadow was

reckoned to be 3.3% per annum. Fragmentation and isolation of stands have been common.

In Wales it is estimated that there is now about 24,000 ha of lowland purple moor grass and rush pasture. In south west England 530 purple moor grass and rush pastures sites are known to survive on the Culm Measures, covering 3,981 ha, 400 sites on Dartmoor covering 1,000 ha with a further 90 sites covering about 300 ha on the Blackdowns.

In Northern Ireland it was estimated that there was about 24,600 ha in 1993. The total extent in Scotland is thought to be in the region of 2,000 ha. Thus it is probable that the total extent of the habitat in the UK is now about 56,000 ha. This is thought to be considerably more than survives in the rest of Europe, with the possible exception of the Republic of Ireland.

2.2 Local

In Devon and Cornwall, where the habitat is known as Culm Grassland, only 8% of that present in 1900 remains today; with a staggering 62% of sites and 48% of the total area being lost between 1984 and 1991. Fragmentation and isolation of stands has been common.

2.3 SWLT

Sites that host wet woodland habitat	Designations
Burrator Reservoir, Yelverton, Devon	Dartmoor National Park
Fernworthy Reservoir, Chagford, Devon	Dartmoor National Park
Gammaton Reservoirs, Devon	County Wildlife Site
Tamar Lakes, Bude, Cornwall	County Wildlife Site
Melbury Reservoir, Parkham, Devon	County Wildlife Site
Wimbleball Lake, Dulverton, Somerset	Exmoor National Park

3. Legal status

In Devon and Cornwall, 27 sites covering 1,100 ha have been notified as SSSIs, and one of these is a National Nature Reserve. Types of *Molinia* vegetation in the UK are recognised as examples of *Molinia* meadows on chalk and clay, which is listed on Annex I of the EC Habitats Directive. The UK Government has set out its proposals for sites, which it considers merit designation as SACs for this type. (Several of these sites are also proposed for the conservation of the marsh fritillary butterfly, which is on Annex II of the Habitats Directive.)

4. Current factors affecting the habitat

- Use of herbicides and fertilisers on adjacent fields leading to nutrient enrichment and loss of biodiversity
- Increased stocking rates, particularly sheep and too frequent burning leading to habitat degradation
- Agricultural improvement through drainage and cultivation.
- Agricultural abandonment, leading to rankness and scrub encroachment through lack of grazing
- Afforestation

5. SWLT action plan objectives and targets

Objectives

- Record and maintain the extent of purple moor grass and rush pasture of all known sites and work towards relevant national and regional objectives
- Complete full National Vegetation Classification (NVC) surveys of Lowery Moor at Burrator Lake and monitor
- Undertake vegetation surveys at other SWLT sites that host purple moor grass and rush pasture
- Monitor populations of Marsh Fritillary in purple moor grass and rush pasture habitats

Targets

- Initiate restoration management of purple moor grass and rush pasture on all known sites, especially where site hosts are LNRs, SSSIs and SACs, i.e. Roadford Lake and Burrator Lake
- Achieve favourable condition or recovering condition of purple moor grass and rush pasture on all significant sites by 2010
- Encourage appropriate management regimes intended to achieve favourable condition on all sites outside of SSSI and SAC designations by 2010. Wherever possible extend or link existing isolated purple moor grass and rush pasture by creating species-rich wildlife corridors and increase the flow of genetic diversity associated with isolated or fragmented habitats

Current action

- Grazing regime using ponies in place at Fernworthy Reservoir
- Bracken control methods under investigation for Wimbleball Lake
- Extended Phase One survey of Roadford Culm Grasslands sites
- Culm grassland sites in Countryside Stewardship at Roadford, several parcels to be grazed by Highland cattle from 2009 onwards
- Potential MSc project in discussion with Plymouth University regarding the Culm grassland receptor sites at Roadford Lake
- Marsh Fritillary surveys at Fernworthy and Wimbleball to establish presence and gauge populations

6. SWLT action plan

Action	Potential Partners	Target Date
Policy & Legislation		
1. Recognise areas of purple moor grass and rush pasture and declare as CWS/LNR.	SWW / LA's / Wildlife Trusts	2012
2. Recognise purple moor grass and rush pasture within agri-environmental schemes. Set areas aside for natural purple moor grass and rush pasture regeneration.		2010
Site Safeguard & Management		
1. Ensure that all suitable purple moor grass and rush pasture sites are assigned internally as Nature Reserves.	SWW	2011
1. Implement management programmes to reduce the amount of stock grazing on such habitats, i.e. introducing stock fencing.		2010

2. Reduce stocking densities to c.a. 1.6 livestock-units/ha		2009
3. Complete full NVC survey of Lowery moor at Burrator Lake and monitor.		2012
Advisory		
1. Offer advice where appropriate and promote best practise on restoration of purple moor grass and rush pasture.		On-going
Future Research & Monitoring		
1 Obtain quantitative data on the extent of purple moor grass and rush pasture condition and assessment, of all known sites and work towards setting targets relevant to national and regional objectives.		2011
2. Complete NVC surveys of other SWLT sites that host purple moor grass and rush pasture.		2012
3. Provide an inventory of purple moor grass and rush pasture and make available through Environmental Records Centres.		2012
Communications & Publicity		
1. Produce educational material on purple moor grass and rush pasture paying particular attention to the regional term of Culm grassland.		2009

7. Links with other action plans

- Marsh Fritillary
- Barn Owl
- Curlew

8. Useful links

UK Biodiversity Action Plan for Purple moor grass and Rush pasture:
<http://www.ukbap.org.uk/UKPlans.aspx?ID=17>

South West Regional Biodiversity Partnership: <http://www.swbiodiversity.org.uk>

Status of Species and Habitat Report for Purple moor grass and Rush pasture:
http://www.ukbap.org.uk/library/Reporting_pdfs/UKListID17_2002.pdf

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