

Current Status - UK and Local

Lowland heathland is a priority for nature conservation because it is a rare and threatened habitat. The UK supports one fifth of the international total of this habitat. There is also an action plan for Upland heathland, estimated to be in excess of 2 million hectares in Scotland; however declines of over 20% since the 1940's have been estimated. Dwarf shrub heaths are recognised as being of international importance because of their restriction to the western seaboard of Europe.

In the LBAP Partnership area there are a number of heathlands ranging in scale and type. The extensive moorland of the Clyde Muirshiel Regional Park is an obvious key area of extremely high regional importance, having escaped other pressures of land use management in recent years such as forestry and intensive farming. The heathland habitat can extend to the surrounding farmland fringes of the Regional Park, where the surviving heaths can provide a dramatic contrast of vegetation types. Grazing pressure has reduced the influence from heather, commonly resulting in a higher species diversity consisting of intricate mosaics of acid grassland and rush-dominated mires. Notable examples occur north of Lochwinnoch (e.g. Barnshake, Ladymuir etc.), but others occur on the upland fringes such as Marshall Moor, Craig Muir, Moyne Moor and sites on the Liboside hills (e.g. Middleton and Killoch Hill). Note should also be made of the several relics preserved as golf course roughs e.g. Ranfurly, Paisley and Fereneze golf courses.

Most of the above examples are predominantly wet heaths, but with fragments of dry heath. The latter tends to be very scattered and often occurs at a small scale e.g. on rock outcrops, steep embankments and along some upper valley slopes. However at many such sites they can make a valuable contribution to the local diversity. Strictly lowland types (e.g. of sandy soil) are very rare in the urban fringe.

Main Sites supporting Dwarf Shrub Heath

Site name	District	Area ha.
Moyne Moor	East Renfrewshire	62*
Middleton	East Renfrewshire	15*
Craig Muir	Renfrewshire	2.3
Hillside	Inverclyde	-
Barnshake	Inverclyde	-
Kaim Mire	Renfrewshire	-
Paisley Golf Course	Renfrewshire	-
Duchal Moor	Inverclyde	133
Laigh Linthills	Renfrewshire	67
Blood Moss	Inverclyde	12
Leap Moor	Inverclyde	12
Overton	Inverclyde	385
Burnhead/ Whitemoss Moor	Inverclyde	186
Queenside Muir	Renfrewshire	46
TOTAL		844.3

*figures are a measure of the site, not just the heath habitat

Ecology and Management

Typically heathlands support a range of other habitats including acidic grasslands, mires and flushes (including rush pastures) and scrub (notably gorse) or scattered trees (e.g. birch and rowan). Heather (*Calluna vulgaris*) and blaeberry (*Vaccinium myrtillus*) are the main shrubby dominants, but a number of grassland species are also to be found such as Sheep's Fescue (*Festuca ovina*), Wavy Hair-grass (*Deschampsia flexuosa*), Tormentil (*Potentilla erecta*) and Heath Bedstraw (*Galium saxatile*) with a range of bryophytes (mosses and liverworts), typically *Hypnum cupressiforme s.l.*, *Pleurozium schreberii* and *Dicranum scoparium*) and lichens (notably *Cladonia spp.*). Wet heaths are usually distinguished by the presence of species such as Crossed-leaved Heath (*Erica tetralix*), Purple Moor-grass (*Molinia caerulea*), and Deergress (*Trichophorum cespitosum*), and bog-mosses are usually present (e.g. *Sphagnum capillifolium* and *S. compactum*).

Heathlands are also important for the associated fauna. Mammals include: Mountain Hare (*Lepus timidus*), and Stoat (*Mustela erminea*). A range of birds are associated with heath such as Hen Harrier (*Circus cyaneus*), Merlin (*Falco columbarius*), Raven (*Corvus corax*), Snipe (*Gallinago gallinago*), Skylark (*Alauda arvensis*), Wheatear (*Oenanthe oenanthe*), Stonechat (*Saxicola torquata*), Meadow Pipit (*Anthus pratensis*), Red Grouse (*Lagopus lagopus*), Curlew (*Numenius arquata*) and Golden Plover (*Pluvialis apricaria*). Common Lizard (*Lacerta vivipara*) relies on this habitat, as do lepidoptera including the Large Heath butterfly (*Coenonypha tullia*), and Golden-ringed Dragonfly (*Cordulegaster boltonii*) and Black Darter (*Sympetrum danae*) dragonflies.

Modern agriculture, and its associated economy, differs from traditional farmland management systems. Protected examples of heathland mostly exist as isolated sites surrounded by intensively managed land containing high concentrations of soil nutrients. Despite this, there are management methods that can be used within modern systems to preserve the biodiversity of heathlands:

- ★ Muirburn – Well managed muirburn, undertaken by trained professionals, can rejuvenate heather stands, encouraging the growth of new shoots.
- ★ Grazing – Plant and animal diversity can be increased by low to moderate grazing. Grazing management requires decisions on which species and breed of animal to use, stocking rates, and seasonal factors.

Today, the upland Heaths within the LBAP Partnership area, as with the rest of the UK, are typically managed for grouse shooting or free range stock farming, the level of which may not be sustainable.



Inverclyde
Renfrewshire
East Renfrewshire
LBAP



Heather moorland © Lorne Gill/SNH

DWARF SHRUB HEATH

Habitat Definition

Dwarf Shrub Heaths are characterised by vegetation dominated by members of the heath family (*Ericaceae*). Typically they occur on acidic soils, including peats, of a low nutrient status. In general there are two main sub-divisions: Dry and Wet Heaths. The former is characteristic of lowland areas, usually on freely draining, often sandy or gravelly soils, or rock outcrops. Wet Heaths are more typical of upland areas (moorland) with high rainfall or impeded drainage, and are associated with shallow peat formation. Both types share strong affinities with a range of acidic grasslands, which often co-exist in dynamic habitat mosaics.

In this plan, all areas supporting heather dominated vegetation are included, but also some areas where grasses, rushes and sedges are more prominent (usually heavily grazed areas but where short cropped heather persists). The plan covers some upland areas of blanket bog (e.g. substantial areas of the Clyde Muirshiel Regional Park), where bogs modified by drainage and burning management merge with more typical heaths, and can be considered under the general term of moorland. Wetter areas of bog, including raised mires on deep peats, and other associated wetter mires are excluded.

Factors Causing Loss or Decline

Information is limited on the former coverage of heathlands in the LBAP Partnership area. The long history of agricultural management of rural areas over the years may have reduced the coverage (or quality of relics). In more recent times, intensive agricultural pressure and urbanisation in the lowlands are likely to be the main causes of further loss. Many of the surviving remnants are on marginal ground, some in urban areas, which has escaped intensification or development. More specifically, adverse impacts include:

- ★ **Agricultural intensification** – particularly fertilisation, ploughing or drainage
- ★ **Overgrazing** – heavy grazing reduces heather cover, results in the spread of less palatable grasses and can contribute to nutrient enrichment
- ★ **Woodland planting** – schemes often target the agriculturally less productive marginal habitats
- ★ **Lack of Management** – encourages the spread of scrub, notably birch or gorse, and bracken
- ★ **Built developments** – causing direct loss of sites, both to urban fringe and local central sites such as old quarries
- ★ **Recreational pressure** – trampling and intensive treatment of relic heathland in parks and golf courses
- ★ **Poorly managed muirburn** – inappropriate burning of heather.



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Opportunities and Current Action

- ★ The Clyde Muirshiel Regional Park (CMRP) is subject to a management regime, although this is directed at conserving the heathland to support grouse shooting and sheep grazing. The Park Management Committee is developing a Management Plan aimed at restoring heather cover. The principal tool to achieve heather regeneration is the Macaulay Hill Grazing Management Model which is used to generate estimated grazing potential from current heather and grass cover. Application of the model at Hardridge Farm (Duchal Moor) began in the summer of 2001. An action plan for Hardridge includes prescriptions for muirburn and the restoration of areas for Juniper.
- ★ Several of the heathlands are included within Sites of Importance for Nature Conservation (SINCs) recognised by the relevant Local Authority, where there is a presumption against damaging developments.
- ★ The Clyde Muirshiel Regional Park is currently working with farms in the Park area and the Farming and Wildlife Advisory Group (FWAG) to promote conservation via moorland management plans, under the Rural Stewardship Scheme. Under this scheme the reduction of sheep numbers and the introduction of cattle may be used to assist in the control of rush pasture and heather recovery. Bracken control may also be used to promote heathland.
- ★ CMRP, SNH, RSPB and shooting tenants of Misty Law Moor are working in partnership to develop a demonstration site for the regeneration of heather moorland for the benefit of raptors and game birds.

Action Plan

The UK Upland Heathland habitat action plan has a general aim to maintain the current distribution and extent of the resource, but also sets a target of an increase of 5% by habitat enhancement and restoration. Generally, it is hoped to stop fragmentation of the habitat through maintaining upland blocks greater than 10km². The UK costed Habitat Action Plan for Lowland Heathland has two main objectives: “to maintain and improve, by management, all existing lowland heathland”; and, “to encourage the re-establishment of a further 10% by 2005”.

Objectives and Targets

- Objective 1: Establish baseline percentage heather cover at all known sites.
- Objective 2: Ensure no loss in area or reduction of quality of the current heathland sites.
- Objective 3: Introduce sympathetic heathland management.
- Objective 4: Increase the current area of heathland through restoration and positive management.
- Objective 5: Assess the impact of moorland management on farms managed by the Regional Park.
- Objective 6: Promote awareness and value of heathlands to landowners, managers and the general public.
- Objective 7: Review this plan on an annual basis, beginning in 2005.

We will achieve these objectives by:

Action	Actioned by	Timescale
Surveying existing heathland to assess status and conservation needs	LAs SNH CMRP	2004/05
Developing policies which promote management practices which enhance and restore heathland habitats	LAs SNH FWAG	2004/05
Developing policies to presume against loss to development or agricultural intensification	LAs FWAG CMRP	2004/07
Introducing restoration work at appropriate sites and sympathetic management at all sites by 2007	SNH LAs CMRP Landowners & managers	2004/07
Developing and implementing an integrated moorland management plan in the Regional Park by 2005	CMRP SNH	2004/05
Working with Partners to promote good practice literature	SNH LAs	2004/05
Monitoring and recording actions towards these objectives	LBAP Steering Group LBAP Officer Local Records Centre	Ongoing annual

Links with Other Action Plans

Black Grouse, Broadleaved & Mixed Woodland, Hen Harrier, Juniper, Mires, Unimproved Grassland.

Further Information can be obtained from The Biodiversity Officer 0141 842 5281