

Current Status - UK and Local

Over the last 50 years or so the nature conservation interest of grassland has been reduced because of agricultural improvement (such as drainage, artificial fertilizers, ploughing, reseeding, heavy stocking, and altered silage cutting regimes). This produces 'Improved Grasslands' characterised by brighter green, more uniform swards with many fewer plant and associated animal species.

The scope of this plan is focused on all of the remaining types of unimproved grasslands, as they each have similar conservation goals. Grasslands often occur as part of vegetation mosaics, with heaths, rush pastures or other wetlands, or form important glades or rides within wooded areas, and their conservation should be considered as part of the wider ecological picture.

Ecology and Management

Traditionally managed grasslands, whether continually grazed or seasonally cut for hay, tend to support a diverse range of low growing grasses, herbs and bryophytes. These vary depending on drainage and soil types, and can themselves host a diverse wildlife interest, ranging from invertebrates to small mammals and breeding birds.

Acid Grasslands

Acid grasslands are probably one of the most extensive seminatural habitats in Britain, but there is very little information on their true extent or conservation management. National estimates suggest that 1,200,000ha occur in the uplands but in the lowlands it is unlikely to exceed 30,000ha. Much of the upland type comprises low diversity swards. Species rich acid grasslands are usually associated with lowland communities developing on skeletal soils, where a number of nationally rare, often annual species occur.

In the LBAP Partnership area most of the acid grasslands are associated with upland pastures, particularly in and around the Clyde Muirshiel Regional Park, but also on other high ground along the Gleniffer Braes or Lochliboside Hills, and on higher ground to the south of East Renfrewshire. Smaller fragments occur throughout the area, most notably along the steeper slopes of watercourses, on isolated high ground (e.g. Neilston Pad, Garscube and Howcraig Hills), local rocky ridges and on localised sandy soils (natural or former quarry areas etc.).

Acid grasslands develop where the underlying rock is acidic or on surface deposits such as sand and gravel. In general acid grasslands support a lower diversity of vascular plants than some neutral or calcareous grasslands, although bryophytes and lichens may provide some compensation. Typical indicative species include grasses such as Sheep's-fescue (*Festuca ovina*), Mat-grass (*Nardus stricta*), Wavy Hair-grass (*Deschampsia flexuosa*), and other plants such as Tormentil (*Potentilla erecta*) and Heath Bedstraw (*Galium saxatile*). Heather (*Calluna vulgaris*) and Blaeberry (*Vaccinium myrtillus*) may be present at low frequencies but their presence tends to reflect affinities and close association with heathland habitats. A frequent feature of upland rocky outcrops are acidic grasslands characterised by English Stonecrop (*Sedum anglicum*), Sheep's-sorrel (*Rumex acetosella*) and Early Hair-grass (*Aira praecox*), with other species, and notably a number of bryophytes and lichens. Other species indicative of higher diversity acid grasslands include Birds Foot Tefoil, (*Lotus corniculatus*), Heath Milkwort (*Polygala serpyllifolia*), Mountain Pansy (*Viola lutea*), Mouse Ear Hawkweed (*Pilosella officinarum*), Eyebrights (*Euphrasia spp.*), (*Danthonia decumbens*) Sedges (*Carex spp.*) and a number of bryophytes.

Calcareous Grassland

Areas of chalk or limestone, which typically support calcareous grasslands, are absent or rare in the LBAP Partnership area. Some areas of basaltic rock can be richer in base elements, and various flushes or rock exposures along valleys and hillsides can support species indicative of high soil pHs. The same is true for some glacial deposits and also artificial soils such as mine spoil, railway ballast and other waste ground. Although hinted at in several places, no mapping in the local area has recorded calcareous grassland. Typical indicative species include: Mouse-ear-Hawkweed (*Pilosella officinarum*), Bird's-foot-Trefoil (*Lotus corniculatus*), Fairy Flax (*Linum catharticum*), Field Gentian (*Gentianella campestris*), Frog Orchid (*Coeloglossum viride*), Wild Thyme (*Thymus praecox*), Early-purple Orchid (*Orchis mascula*), Fragrant Orchid (*Gymnadenia conopsea*), Burnet-saxifrage (*Pimpinella saxifraga*), Flea Sedge (*Carex pulicaris*) and Glaucous Sedge (*Carex flacca*).

Neutral Grassland

Neutral grasslands cover a wide range of communities occurring on more fertile, neutral soils. They also include rank vegetation on waste ground, roadside verges and poorly draining marshy or inundation areas. Traditionally occurring in lowland areas, often along river flood plains, their management may have excluded stock during early summer for the taking of a hay crop before resuming winter grazing. With the demise of such management and the increase in development pressures in lowland areas, traditional neutral grasslands are extremely rare, if not absent, within the LBAP Partnership area.



Inverclyde
Renfrewshire
East Renfrewshire
LBAP



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UNIMPROVED GRASSLANDS

Habitat definition

Grassland encompasses herbaceous (i.e. non-woody) vegetation, on generally dry ground usually dominated by grasses; such a definition covers the extensive areas of enclosed agricultural land (including upland pasture), roadside verges, open ground by water courses, waste ground, neglected land and recreational areas. Almost all grasslands are the product of human activity created from woodland clearance and drainage of wetlands and maintained by grazing, cutting or burning. Before the influence of humans on the British landscape, grasslands are considered to have been limited to natural clearings in woodlands, high altitudes above the tree limit and coastal areas.

For classification purposes unimproved grasslands are often split into three main types, reflecting the soil pH: Acid, Neutral or Calcareous. The distinction between the types can vary, depending on the underlying geology, soil depth and flushing, but can also be muddied by intensity of agricultural treatment.

Unimproved neutral pastures or meadows are characteristically species rich, and support a wide range of grasses and herbs. Some typical, indicative species include Red Fescue (*Festuca rubra*), Smooth Meadow-grass (*Poa pratensis* agg.), Crested Dog's-tail (*Cynosurus cristatus*), Yorkshire Fog (*Holcus lanatus*), Greater Butterfly-orchid (*Platanthera chlorantha*), Knapweed (*Centaurea nigra*), Lady's Bedstraw (*Galium verum*), Ox-eye Daisy (*Leucanthemum vulgare*), Red Clover (*Trifolium pratense*), Yarrow (*Achillea millefolium*) and Yellow Rattle (*Rhinanthus minor*).

A number of typical pasture species occur on waste ground sites or along roadside verges, but often the species numbers are increased, in urban areas, by non-native plants. Such grasslands also tend to differ due to the lack of regular cropping management and tend to support taller, coarser grasses or herbs. Neutral grasslands are also characteristic of poorly draining depressions or flushes and again a number of additional species can occur, many representing affinities to marsh or rush pasture vegetation.

Factors Causing Loss or Decline

Unimproved or traditionally managed grasslands have declined in recent years although there is very little hard data to support this; undoubtedly large areas have been improved by agricultural treatments or conversion to grass leys. A number have also been lost to urban developments although some can remain, often highly modified, within developments such as parks and golf courses (the rough at the latter can be an important resource).

Key factors include:

- ★ Agricultural intensification – particularly fertilization, ploughing, reseeding or drainage
- ★ Overgrazing – heavy grazing can deplete herbs and is usually associated with stock feeding
- ★ Woodland planting – schemes often target the lower productivity, unimproved grasslands
- ★ Neglect – encourages the spread of scrub, notably birch, hawthorn or gorse, and bracken
- ★ Built developments – causing direct loss of sites, especially to the urban fringe
- ★ Unsympathetic management – intensive treatment of grasslands in parks and golf courses reduces potential sward diversity.

Opportunities and Current Action

- ★ Only a few areas of unimproved grassland are included within local SSSI boundaries although the majority of the remaining areas are included within actual or proposed Sites of Importance for Nature Conservation (SINCs) in the respective Council areas.
- ★ SEPA's Habitat Enhancement initiative (HEI) could potentially provide grants for groups or individuals to pay for habitat restoration at local sites.

Action Plan

The priorities are fundamentally aimed at curbing the loss of unimproved grasslands, in particular to ensure that no further loss occurs at known areas of high species diversity and of representative samples of the various types. It is therefore important that such grasslands are identified and investigated for optimum management.

Objectives and Targets

- Objective 1: Establish the extent and assess conditions of key types or areas within the LBAP Partnership area.
- Objective 2: Ensure no loss in area or reduction of quality of important grasslands.
- Objective 3: Encourage sympathetic, active management of unimproved grasslands.
- Objective 4: Promote awareness and value of unimproved grassland to landowners, farmers, land managers and the general public.
- Objective 5: Review this plan on an annual basis, beginning in 2005.

We will achieve these objectives by:

Action	Actioned by	Timescale
Surveying all known seminatural grasslands to identify key ecological areas	LAs SNH	2004-05
Developing policies which promote management practices that enhance and restore unimproved grassland habitats	LAs SNH FWAG	2004-07
Introducing restoration work and sympathetic management over at least 25% of the current resource by 2010	LAs FWAG Landowners & managers	2004-2010
Working with Partners to promote relevant guidance literature	FWAG LAs	2004-07
Monitoring and recording actions towards these objectives	LBAP Steering Group LBAP Officer Local Records Centre	Ongoing / annual

Links with Other Action Plans

Broadleaved & Mixed Woodlands, Dwarf Shrub Heath, Mires, Brown Hare, Greater and Lesser Butterfly-orchids, Juniper, Spignel, Waxcaps, Black Grouse, Hen Harrier.

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

