



Peat Bogs

This plan is in need of revision since it was originally written in 2002 and has not been comprehensively revised since.

Natural England began, in 2009, a meres and mosses project which will contribute greatly to the condition and extent of peat bogs in Shropshire.

In Shropshire there are more than sixty open water bodies known as 'meres' or 'pools' and a smaller number of peatland sites known as 'mosses'. Mosses develop when peat accumulates in open water depressions left by the last glaciation, sometimes leading to the complete infilling of the basin. During this process the impact of nutrient-rich groundwater becomes less and less, until on raised bogs, rainwater provides the sole water input (known as ombrotrophic). This provides ideal conditions for the Sphagnum moss species from which the 'mosses' gain their name. On some sites the process of infilling is only partly complete and a raft of bog vegetation overlies the water. In these cases the bogs are known as "schwingmoors" or quaking bogs, due to their unstable surface.

The meres and mosses of the north-west Midlands form a nationally and internationally important series of open water and peatland sites. Northern Shropshire possesses a major proportion of lowland raised bogs in the UK. Peat bogs are a rare and declining habitat in Britain and often very important for large numbers of rare plants and insects.

1 Objectives and Targets

1.1 Objectives

- A. Protect all peat bogs by ensuring no further loss or degradation.
- B. Increase the extent of peatland through restoring degraded areas.
- C. Maintain and enhance existing peatlands through appropriate management.
- D. Improve knowledge of the extent and status of peat bogs through survey, research and monitoring.
- E. Increase awareness of the importance of peat bogs.

1.2 Targets

- Restore 2 former raised bogs through the Meres and Mosses Project by 2010.
- Ensure that all peatland sites are managed appropriately by 2010.

2 Current Status

2.1 Importance

Lowland raised bog is a priority habitat in the UK Biodiversity Programme. Raised bogs and quaking bogs (schwingmoors) are very rare habitats in Britain and Europe. In Shropshire,

Fenn's, Whixall, Bettisfield, Wem and Cadney Mosses (raised bogs) and Clarepool Moss (quaking bog) have been identified as candidate Special Areas for Conservation (cSACs) for peatland features.

Many plants found on bogs are both rare and localised. These include bog rosemary, bog asphodel, white-beaked sedge, cranberry, creeping willow and sundews. Many rare invertebrates are also restricted to peat bogs, including the white-faced darter dragonfly which has a very limited distribution in Great Britain.

2.2 Trends

Since the 19th century the extent of primary active lowland raised bogs in the UK has decreased from 95,000 ha to 6,000 ha: a decline of 94%. In England the decline has been even more dramatic: 37,000 ha to the present day 500 ha. Raised bogs that remain are often degraded and isolated, and commonly surrounded by intensively farmed agricultural land.

2.3 Area/Extent

In Shropshire there are 21 'Moss' or 'Bog' sites of which Fenn's, Whixal, Bettisfield, Wem and Cadney Mosses at 948ha is the largest. The others all tend to be small in size with the peatland vegetation forming a mosaic with other vegetation. Many are SSSIs and under conservation management.

However a large number of SSSIs and several others in the county are now degraded, having been invaded by scrub and trees. Many of these sites still contain fragments of typical bog vegetation such as cottongrass, sphagnum and dwarf heath scrub, but others have lost these plants completely.

Four sites in Shropshire contain schwingmoors or have developed schwingmoor type features in pools or peat cuttings.

2.4 Distribution

The Meres and Mosses Natural Area incorporates north Shropshire and includes a number of important basin mires and small lakes. Fenn's, Whixall, Bettisfield, Wem and Cadney Moss SSSI (948 ha including land in Wales) includes the largest area of active raised bog within the county and the third largest in the UK.

3 Current Factors Affecting the Habitat

- Suppressed or fluctuating water levels from drainage of surrounding land, leading to scrub and tree invasion, and colonisation by bramble and bracken.
- Nutrient enrichment from surrounding land due to agricultural practices and inappropriate development.
- Planting of trees on degraded areas of bog, making conversion back to former condition very difficult due to increased litter and nutrient levels.
- Lack of information on current condition of former raised bogs and raised bog fragments that are not within SSSIs.

- Scattered and isolated nature of remaining raised bogs. This makes them very susceptible to chance events which can result in local extinction for some species and makes recolonisation unlikely.

4 Current Action

4.1 Policy and Protection

- Fenn's, Whixall, Bettisfield, Wem and Cadney Mosses and Clarepool Moss are candidate Special Areas of Conservation (cSACs) for peatland features.
- 6 other peatland sites receive protection as SSSIs.

4.2 Management, Research and Survey

- Fenn's, Whixall and Bettisfield Mosses are managed by English Nature, and Wem Moss by the Shropshire Wildlife Trust. Other SSSI peatlands are also under conservation management.
- Catchment conservation plans have been produced for all peatland SSSIs.

5 Benefits of Conserving Peat Bogs

- Peat bogs support a great diversity of species of plants and animals including many rare species.
- Peat bogs provide a link with the past and offer an excellent educational resource.
- Raised bogs are unique landscape formations that are very rare throughout the world.
- The remains of many historical objects have been preserved in layers of peat.
- Peat cores have helped scientists understand changes in the world climate. This work is also helping to predict the effect man may have on the planet in future years.

6 Key Species

Reptiles adder

Beetles 1 Red Data Book (RDB) beetle

Flies 16 RDB species

Dragonflies black darter, downy emerald, keeled skimmer, white-faced darter

Moths 7 RDB species

Birds snipe

Plants *Dicranum undulatum*, *Riccia canaliculata*, bog rosemary, cranberry, cowbane, great fen-sedge, round-leaved sundew, white beak-sedge

7 Complementary Plans

UK Lowland Raised Bog HAP

Shropshire Lowland Heathland HAP

Shropshire Standing Open Water HAP

Shropshire Snipe SAP

Shropshire White-faced Darter SAP

Habitat / Species	Action code	Action text	Location of action	Start date	End date	Lead	Assisting
Peat Bog	SHR BOG CP 02	Promote the biodiversity and landscape value of peat bogs to the public.	Shropshire	2002	-	SWT	EA, SC
Peat Bog	SHR BOG HC 01	Promote the restoration of raised bog sites to their former status by clearing trees and reinstating hydrology	Shropshire	2002	2010	SWT	EA, SC, NE
Peat Bog	SHR BOG HS 02	Maintain 0.04ha quaking bog at Brown Moss until 2015.	Brown Moss	2009	2015	SC-ORS	
Peat Bog	SHR BOG SP 02	Ensure that all relevant sites, including degraded peat bogs, are designated as County Wildlife Sites until 2015.	Shropshire	2006	2015	SWT	SC, T&W

Key to Organisations

SWT Shropshire Wildlife Trust
SC Shropshire Council
SC-ORS Shropshire Council Outdoor Recreation Service
EA Environment Agency
NE Natural England
T&W Telford & Wrekin Council

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