Scottish Borders LOWLAND RAISED BOG HABITAT ACTION PLAN





Our Sco#Ish Borders Your environment



Current Status

Lowland Raised Bogs are typically isolated and domes of peat in an otherwise non-peat landscape. The surface of a "natural" lowland raised bog is waterlogged, acidic and low in plant nutrients. This supports a range of specialised plant assemblages dominated by mosses of the genus *Sphagnum* that are able to store large amounts of water. The surface of a healthy bog is a mosaic of pools, hummocks and Sphagnum 'lawns'.

The wet and acidic conditions slow down the decomposition process and allows peat to accumulate. When a raised bog functions naturally it accumulates peat and is said to be active. If the bog is undamaged it is described as unmodified. If damage has stopped the bog functioning naturally it is said to be inactive and modified.

The following classification is used for Lowland Raised Bogs based on their ability to function and the modification of the bog surface.

- Active and Unmodified High Quality sites
- Active and Modified
- Inactive and Modified Degraded and damaged sites unable to accumulate peat.

94% of the raised bogs in Britain have been destroyed since the beginning of the 19th century. Of those remaining only a small percentage are active and unmodified. The National Countryside Monitoring Scheme estimated that in Scottish Borders lowland mires (predominantly lowland raised bogs) have been reduced by 37% between 1940s to 1980s, with only 8km2 remaining The main threats to the remaining lowland raised bogs in Scottish Borders are internal and peripheral drainage and tree colonisation.

Lowland Raised Bogs occur below an altitude of 300 metres. This differentiates them from blanket bog, which occurs in the uplands. Bogs that share the characteristics of lowland raised bog do occur in the uplands, such bogs are termed Intermediate Bogs because they have characteristics of both raised and blanket bog and they are included in the blanket bog habitat action plan.

National Vegetation Community (NVC) plant communities associated with active, unmodified lowland raised bog include:

bog pool communities M1 (Sphagnum auriculatum), M2 (Sphagnum cuspidatum / recurvum) and M3 (Eriophorum angustifolium), and M18 (Erica tetralix – Sphagnum papillosum) raised and blanket mire.

Key Species Species of Conservation Concern

A lichen (Absconditella sphagnorum), slender cow-horn bog moss, (Sphagnum subsecundum), coralroot orchid (Corallorhiza trifida), cranberry (Vaccinium oxycoccos), a beetle (Cyphon kongsbergensis), dark-bordered beauty (Epione paralellaria), Large Heath Butterfly (Coenonympha tullia), adder (Vipera berus)

For full list of Species of Conservation see: http://www.scotborders.gov.uk/info/1220/conservation

Key Issues

- Peat extraction for horticulture and fuel.
- Landfill development that utilises bogs where peat extraction has occurred.
- Afforestation and associated drainage
- Drainage for agriculture and water abstraction
- Air pollution
- Nutrient enrichment from catchment, livestock and game management -drainage, trampling, burning and nutrient enrichment from feed and droppings
- Land reclamation for development.
- Climate Change

Opportunities

- A Borders Wetland Vision
- Rural Development Contracts
- Sustainable Flood Management
- Carbon sequestration schemes
- Development enhancements

Current Action

- Restoration of lowland raised bog under Forth and Borders South Scotland Bog Scheme Natural Care scheme (SNH) for lowland raised bog SSSIs.
- Auditing of Forestry Commission Scotland estate for UKBAP habitats
- Borders Wetland Vision LBAP project led by Scottish Borders Council has been developing since 2005 a strategic approach to wetland conservation in Scottish Borders by identifying opportunity areas for wetlands including lowland raised bog. It is proposed to develop a wetland restoration project out of this Vision

- Restoration work was carried out by SNH and SWT under an EU Life project to restore Special Area of Conservation (SAC) Lowland Raised Bogs in Scotland, including Threepwood Moss in the Scottish Borders.
- Implementation of Forestry Commission Scotland guidelines "Forests and Peatland Habitats"

Objectives

- 1. Determine status of lowland raised bog habitat in Scottish Borders
- 2. Ensure no further loss of lowland raised bog habitat in Scottish Borders
- 3. Restore and where appropriate enhance existing habitat and enhance habitat integrity
- Promote the value of lowland raised bog through education and awareness

Targets

- 1. Identify the extent of lowland raised bog derived from Aerial Photography Interpretation by 2008.
- 2. Maintain the 2008 baseline extent of lowland bog in Scottish Borders
- Restore area equivalent to 5% of baseline lowland raised bog resource by 2015
- 4. Enhance 5% of the baseline lowland raised bog resource by 2015

Key Actions

- Determine status, extent and condition of lowland raised bog habitat in Scottish Borders.
- Prioritise areas of lowland raised bog for restoration and enhancement under the Borders Wetland Vision project

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- Maximise opportunities for protection and enhancement under Rural Development Contracts
- Encourage the implementation of Forestry Commission Scotland guidelines "Forests and Peatland Habitats" for all forests and forestry plans
- Promotion of appropriate habitat management including development of key guidance
- Develop integrated habitat network initiatives incorporating lowland raised bogs
- Under a Borders Wetland Vision develop and implement a lowland raised bog restoration project with emphasis on hydrological management and forest restructuring
- Assess peat extraction in Scottish Borders and review the use of peat by New Ways partners.
- Ensure protection of lowland raised bog areas from inappropriate development
- Provide targeted advice to owners of lowland raised bog
- Survey and monitoring of two priority species by 2010
- Send all survey and monitoring data gathered to the Scottish Borders Biological Records Centre (SBBRC)
- Promote the value of lowland raised bog habitats by holding demonstration events at key sites e.g. lowland raised bog SACs

Linkage to other plans and strategies

Rivers and Burns HAP Fens, Marsh, Swamp and Reedbed HAP Blanket Bog HAP Native Woodland HAP Grassland and Enclosed Farmland HAP LBAP Information Action Plan Tweed Catchment Management Plan Solway - Tweed River Basin Management Plan Scottish Biodiversity Strategy

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It is also available on our website: www.scottishborders.gov.uk/life/environment/naturalheritage/2715.html



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