Northumberland **Biodiversity** Partnership

BLANKET BOG HABITAT ACTION PLAN

Plan Co-ordinator	Upland Habitat Group
Plan Author	Gill Thompson
Plan Lead	
Latest version	May 2007

Working with Wildlife

Description

Blanket bog is a habitat dominated by heather, bogmosses, cottongrass or deergrass that occurs over the mantle of peat that covers extensive areas of plateaux and gentle slopes in the uplands of north and west Britain. This has formed over the past 1,500 - 9,000 years (and is still forming) in areas where the impeded decay of plants caused by the cool wet environment, and acidic nature of the underlying mineral materials has favoured the accumulation of peat rather than the development of a mineral soil. The vegetation of blanket bogs in Northumberland is dominated by a heather - harestail cotton-grass community, with expanses of *Sphagnum* moss in places. Also included in this plan are raised and intermediate mires which are deeper peat habitats which have formed in depressions.

Blanket bog is listed on Annex I to the EC Habitats Directive, and active blanket bog (bog which still supports a significant area of peat-forming vegetation) is a priority habitat type under the Directive, which means that its conservation is considered to be of the highest priority. Blanket bog is confined to cool, wet oceanic regions, and a major part of the total resource of this habitat in the European Union occurs in the UK.

Conservation Status

EC Habitats Directive, Annex I

Current Extent in Northumberland

The approximate area of blanket bog in Northumberland is 34,700 hectares (17,320 previous estimate) representing 1.2% of the UK and 8.0% of the English resource.

The key sites for blanket bog in Northumberland are the North Pennines, Border mires, Kielderhead and Emblehope Moors, the Cheviots and Otterburn mires.

Associated Action Plans

Heather Moorland
Upland Waders
Black Grouse

Current Factors Causing Loss or Decline

- Inappropriate burning
- Inappropriate management through over grazing
- Drainage - this is mostly historical
- Formation and expansion of gully systems
- Tree regeneration - mainly on ungrazed sites in forests
- Windfarms
- Recreational pressure
- Vehicle pressure including ATVs and motorbikes and shooting tracks

Further Information

Northumberland National Park authority Phase 1 habitat survey, 1992
Natural England - nature on the map, biodiversity action plan priority habitats, blanket bog data set
Lunn, A, 1976, The Vegetation of Northumberland

This blanket bog action plan links to the blanket bog UK BAP action plan, whose lead partner is Scottish Natural Heritage.

Targets

Maintain the current extent of blanket bog in Northumberland of 34,700 hectares by 2010.

Achieve favourable or recovering condition by appropriate management of blanket bog in Northumberland currently in unfavourable condition by 2010.

Priority Actions	Date
Accurately estimate the amount of blanket bog and mire in good condition	2007
Use the condition assessment data to add a numeric value to the achieve favourable condition target for blanket bog	2007
Block 100 kilometres of priority areas of grips in the North Pennines AONB	2008
Identify locations and secure agreement for 100 kilometres of more ditch blocking in NPAONB	2010
Carry out grip blocking on SSSI Border mires	2010
Carry out grip blocking on other mires	ongoing
Fence areas or achieve favourable grazing regimes	ongoing
Remove tree regeneration on SSSI Border mire sites	ongoing
Remove tree regeneration on other identified mire sites	ongoing
Remove plantation forestry from SSSI Border mires and margins to maintain a minimum 30m buffer zone	2010
Remove plantation forestry from other mires and margins to maintain a minimum 30m buffer zone	ongoing
Establish environmental stewardship agreements for sites in poor condition including burning plans	ongoing
Restore eroded areas caused by recreational pressure and provide sustainable surfaces where appropriate e.g. Simonside	2010
Promote a precautionary approach to development e.g. windfarms and new tracks on or near blanket bogs	ongoing
Remove derelict fences for landscape reasons and to prevent bird strike	ongoing
Promote the importance of Northumberland's blanket bog and its associated species including its role in water management and climate change	ongoing

Northumberland **Biodiversity** Partnership

HEATHER MOORLAND HABITAT ACTION PLAN

Plan Co-ordinator	Upland Habitat Group
Plan Author	Gill Thompson
Plan Lead	
Latest version	May 2007

Working with Wildlife

Description

Heathlands are dwarf shrub mainly heather-dominated habitats that develop over mineral soils of low pH and over very shallow peat. Upland heathland dominates extensive areas of the unenclosed uplands in Northumberland, especially the drier eastern areas where conditions are less conducive to blanket bog formation. Such habitats are dominated by ling heather with bell heather, bilberry, a range of grasses, sedges, mosses and lichens and, in the wetter areas, cross leaved heath and deer grass.

Upland heathland often occurs in combination with mire and grassland habitats. This plan covers both wet and dry heath. The UK has the most extensive examples of upland heath in Europe, and also a significant proportion of its lowland heath (although Northumberland has very little of the latter). Consequently, a number of the types of heath found in Northumberland are listed on Annex I to the EC Habitats Directive; Northern Atlantic wet heaths with cross-leaved heath, dry heaths, and juniper formations on heath.

Conservation Status

EC Habitats Directive, Annex I

Current Extent in Northumberland

Approximately 40,000ha of upland heath (including heath and acid grassland mosaics) occurs in Northumberland, about 1.0% of the UK total, and 10% of the total occurring in England and Wales. This occurs in four main areas; the granite and andesite plateaux and slopes of the Cheviots, the Fell Sandstone moorlands that occur in an arc to the east and south of the Cheviots, below the blanket bog clad summits of the Border Hills, and on Millstone Grit plateaux in the east of the North Pennines.

Associated Action Plans

Blanket bog
Black grouse
Upland waders

Current Factors Causing Loss or Decline

- Inappropriate burning particularly on short rotation and on sensitive sites
- Inappropriate management through over grazing
- Windfarms
- Recreational pressure
- Vehicular use including ATVs, motorbikes and new tracks

Further Information

Northumberland National Park Authority Phase 1 habitat survey, 1992
Natural England - nature on the map, biodiversity action plan priority habitats, upland heathland data set
Lunn, A, 1976, The Vegetation of Northumberland

This heather moorland action plan links to the upland heathland UK BAP action plan, whose lead partner is Natural England.

Targets

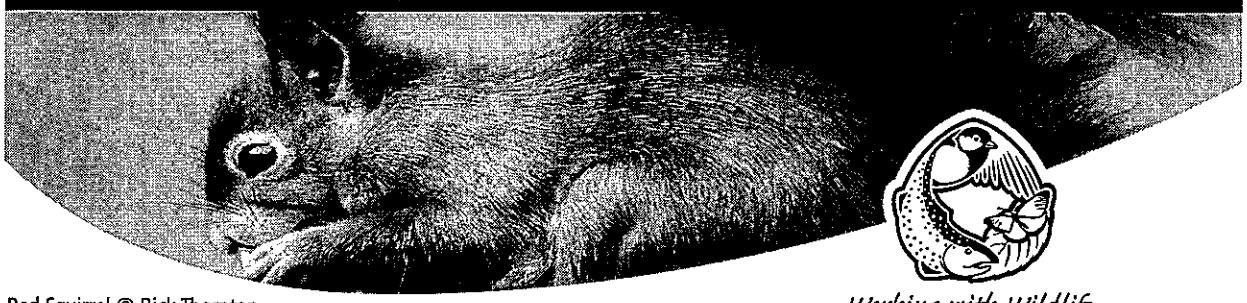
Maintain the current extent of heather moorland in Northumberland of 40,000 hectares, including distribution and range of habitat types.

Achieve favourable or recovering condition by appropriate management of 20,000 ha of heather moorland currently in unfavourable condition by 2010.

Restore 100 ha of heather moorland in Northumberland on 'white ground' to offset historical losses by 2015.

Priority Actions	Date
Accurately estimate the amount of heather moorland in good condition	2007
Identify key sites for restoration	2008
Establish environmental stewardship agreements for sites in poor condition including burning plans and grazing levels	2010
Re-seed areas ensuring that the current vegetation and grazing pressure is controlled	2015
Promote a precautionary approach to planning applications for development on or near heather moorland including windfarms and new tracks	ongoing
Raise awareness about the importance and management of moorland and its associated species through publicity material and events	ongoing

Northumberland **Biodiversity** Action Plan



Red Squirrel © Rick Thornton

Working with Wildlife

Red Squirrel *(Sciurus vulgaris)* Species Action Plan

Plan Co-ordinator	Woodland Group
Plan Author	Mark Wilkinson
Plan Lead	Save Our Squirrels
Latest version	January 2008

Description

The red squirrel can reach a body length of up to 220mm, has a distinct red/brown pelt, a long bushy tail of uniform colour, and characteristic ear tufts that are particularly prominent in winter. The colour of a red squirrels coat can vary, ranging from dark brown/black, to blonde tones due to bleaching by summer sunlight.

Red squirrels are adapted for living and moving about in trees, with ranges extending up to 8 hectares dependent on the habitat type. Food sources vary throughout the year to include: ripe tree seeds and nuts, berries and fruits, fungi, shoots, flowers, bark, lichens and invertebrates. Population densities vary greatly from as low as 0.2 per hectare in Sitka Spruce woodland, to an average of 1 per hectare in broadleaf woodland. They are limited to crossing up to 500m of open ground so a structurally diverse and continuous habitat is therefore important.

Red squirrels live in either a dense ball of twigs and leaves known as a drey located in a branch fork against the tree trunk, or a hollow in a tree known as a den. Summer dreys are less substantial platforms of twigs, and squirrels rotate between several dreys to limit build up of parasites.

The red squirrel is active by day, and does not hibernate, although will remain in the shelter of a drey for longer periods during adverse weather conditions. The breeding season runs from January to October, with the first litter of around 3-4 kittens in spring and a second litter in summer dependent on food availability.

Conservation Status

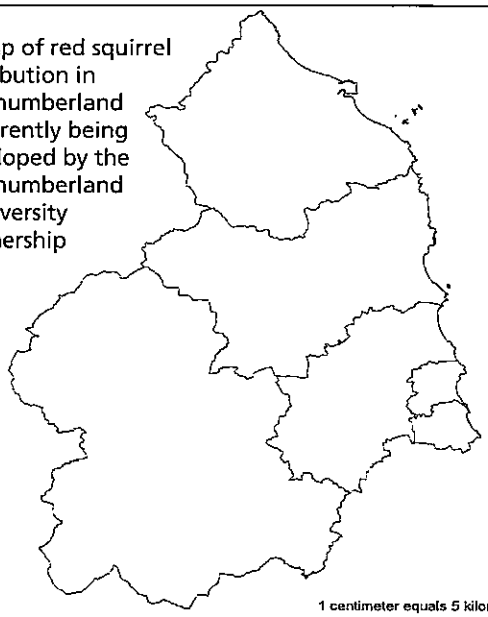
Bern Convention, Appendix III
UK Biodiversity Action Plan Species
North East Biodiversity Action Plan Species

Current Extent in Northumberland

In order to maintain populations of red squirrels across their current range in the UK conservation activity will focus on selected priority woodland areas. A total of 16 red squirrel reserves have been established in the North of England and 9 of these are found in Northumberland. This strategy aims to ensure that main centres of populations will be viable in the long term. Areas outside of the priority zones with red squirrel populations can expect to lose them over the next few decades. Whilst it may seem strange to have a BAP target that recognises a decline, to do otherwise is considered to be unrealistic. If no action is taken to defend the priority areas the red squirrel is likely to decline to extinction in mainland England, Wales and Northern Ireland.

The red squirrel is widely distributed across Northumberland, recorded in 62 10km National Grid squares since 2000. Of these squares, 39 lie within the 9 red squirrel reserves in Northumberland and their 5km radius buffer zones. The reserves cover approximately 52,131 hectares.

A map of red squirrel distribution in Northumberland is currently being developed by the Northumberland Biodiversity Partnership



1 centimeter equals 5 kilometers

Red Squirrel *(Sciurus vulgaris)* Species Action Plan

Current Factors Causing Loss or Decline

- Spread of the non-native grey squirrel *(Sciurus carolinensis)*
- Squirrelpox virus

Associated Action Plans

Native Woodland

Black Grouse

Further Information

This red squirrel action plan links to the red squirrel UK Biodiversity Action Plan, whose lead partner is JNCC.

The Save Our Squirrels project website - www.saveoursquirrels.org.uk

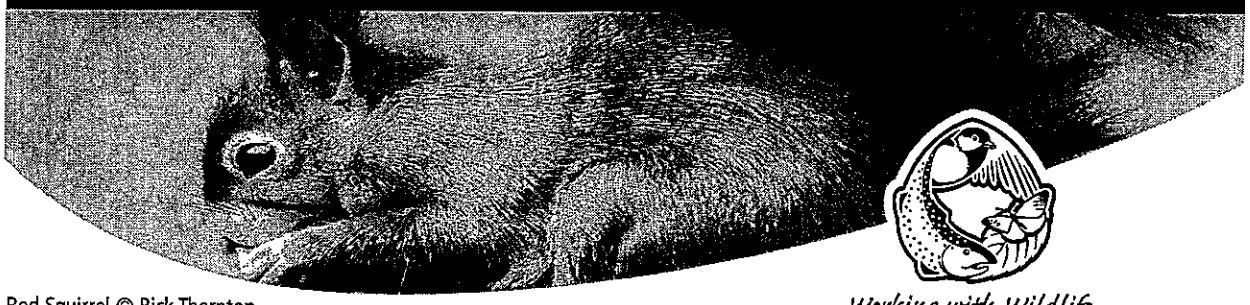
Pepper, H. & Patterson, G. (1998). Red Squirrel Conservation. Practice Note 5. Forestry Commission, Edinburgh.

Wauters, L.A, Lurz, P.W.W. & Gurnell, J. (2000). Interspecific effects of grey squirrels *(Sciurus carolinensis)* on the space use and population demography of red squirrels *(Sciurus vulgaris)* in conifer plantations. Ecological Research, Vol 15, 271-284.

Targets

Maintain the current range of the red squirrel in Northumberland within the 9 red squirrel reserves and their 5 kilometre buffer zones by 2010

Code	Priority Actions	Date
RS A01	Establish contact with all reserve and buffer zone land owners and managers	2008
RS A02	Provide funding advice to landowners and managers in the buffer zone areas and encourage grant applications	ongoing
RS A03	Establish a grey control network in the buffer zones	2008
RS A04	Provide conservation advice and training for reserve and buffer zone landowners and managers and partner organisations	ongoing
RS A05	Establish a monitoring network across the 9 reserves	2008
RS A06	Conduct biannual monitoring across the 9 reserves	ongoing
RS A07	Establish and train a team of volunteers to assist in the monitoring of red squirrels in reserves and buffer zones	ongoing
RS A08	Produce additional Buffer Zone Management guidelines	2008
RS A09	Establish local groups in strategic locations to implement red squirrel conservation	ongoing
RS A10	Set up and maintain a database of all sightings data	2007
RS A11	Produce a map of red and grey squirrel distribution across the region	2007
RS A12	Establish contact with red squirrel conservation officers across the country to ensure that conservation efforts in Northumberland link up with those from bordering regions	2007
RS A13	Coordinate a summit of local councils to enhance the protection of urban and suburban populations	2007
RS A14	Raise awareness about the importance and management of Northumberland's red squirrels through publicity material, events and training	ongoing
RS A15	Create a flagship access and interpretation visitor facility in Kielder Forest	2009



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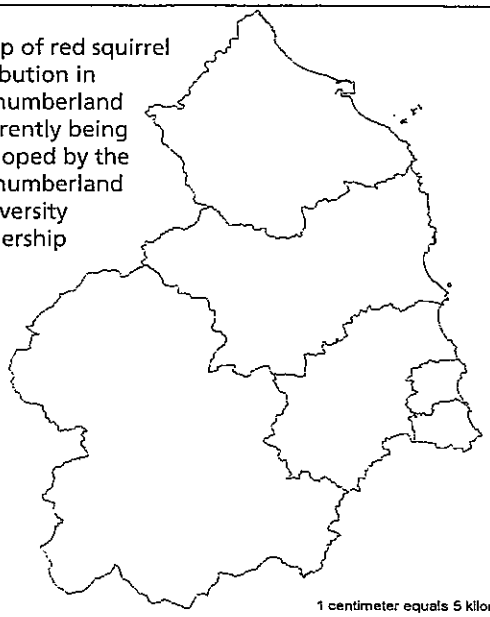

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