

# Dartmoor Species Action Plan for Bats



© Frank Greenaway

*Whiskered bat*

Because bats depend on a whole network of habitats which are being fragmented and altered by current patterns of landscape change, their populations are good indicators of the health of the countryside. Many species have declined in abundance and suffered a contraction in their range over the past century throughout Europe, including Britain. Dartmoor still has good bat populations because the pace of change has been slower here than elsewhere and much suitable habitat still remains. The habitat requirements and population status of bat species found in Dartmoor National Park are shown overleaf. This action plan has been drawn up for all bat species within the National Park, as many of the issues that affect them and the necessary actions to protect and enhance their populations are similar.

The greater horseshoe bat is a rare species in Britain and is confined to the south-west and south wales. Over the last century this bat has undergone a significant decline, however it now seems to be on the increase in most roosts, with the national population currently estimated to be up to 10,824 individuals.

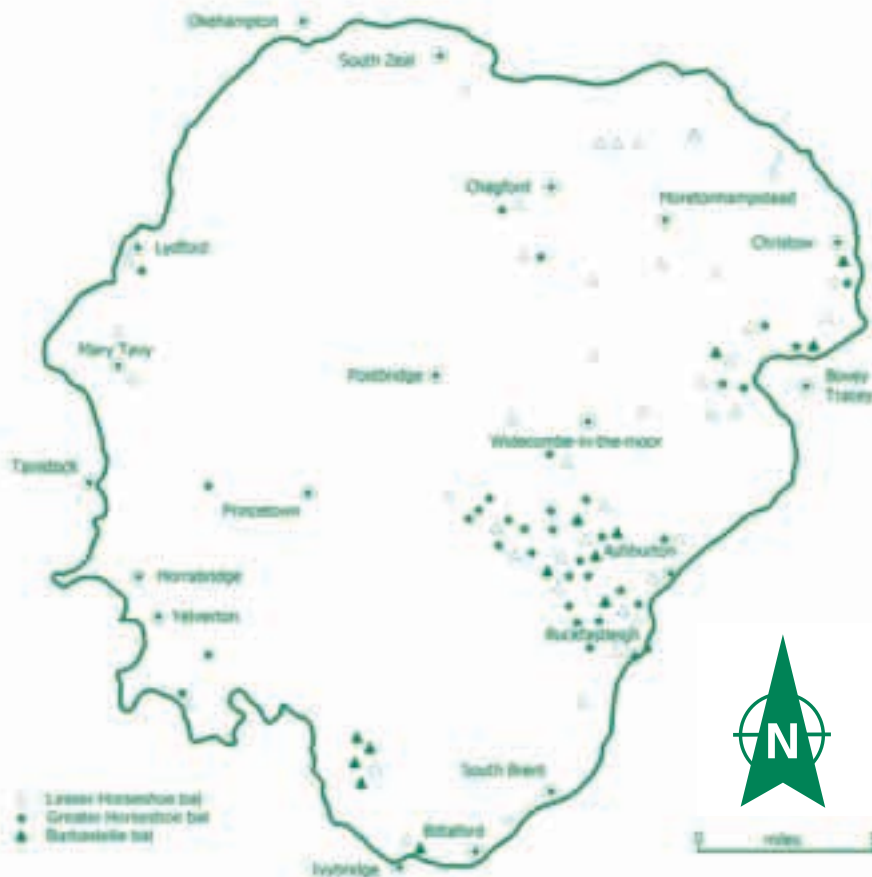
The lesser horseshoe bat, the

barbastelle bat and the Bechstein's bat are rare species of bats dependant mainly on ancient semi-natural woodlands. The common and soprano pipistrelles (*Pipistrellus pipistrellus* and *Pipistrellus pygmaeus*) remain the most abundant and widespread bat species in the UK and their populations are thought to be stable and possibly increasing (for the common pipistrelle).

All British bat species are listed on Appendix II of the Bonn Convention and all are listed on Appendix II of the Bern Convention (except for the pipistrelle which is listed on Appendix III). All bat species in Britain are given strict protection under Annexe IV (a) of the European Habitats Directive. In addition, lesser and greater horseshoe bats, Bechstein's bat and the barbastelle are listed on Annex II of the same Directive. Special Areas of Conservation for these species have been designated. At a national level, all bats and their roosts are protected under Schedule 2 of the *Conservation (Natural Habitats, etc.) Regulations 2000* (amended), Schedule 5 of the *Wildlife and Countryside Act 1981* (as amended) both of which prohibit killing, taking and disturbance of the bats or their roosts, and under Schedule 12 of the *Countryside and Rights of Way Act 2000*.

### Dartmoor Bats Distribution Map

This distribution map shows the location of known roosts for the greater horseshoe bat, the lesser horseshoe bat and the barbastelle.



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UK Biodiversity Action Plans have been prepared for all six species mentioned above. Both the *Devon Biodiversity Action Plan* and *Biodiversity: The UK Steering Group Report* include action plans for the greater horseshoe bat including information about its ecology and habitat requirements. *Action for biodiversity in the south-west* includes an action plan for the pipistrelle bat. This action plan incorporates relevant actions from these plans and sets local objectives, targets and actions for Dartmoor.

#### Current status on Dartmoor

Dartmoor National Park is an important stronghold for 13 out of the 16 bat species resident in the UK. The habitat requirements and known population status of bat species found in Dartmoor National Park are shown below.

Dartmoor National Park holds a large proportion of the UK population of the greater horseshoe bat at a number of sites. The largest known breeding roost in western Europe is located in the south of the National Park, containing approximately 1,000 adults and over 500 juvenile bats in late summer.

Two Sites of Special Scientific Interest (SSSIs) on Dartmoor are known to contain breeding and hibernating greater horseshoe bats and both are constituents of the South Hams Special Area of Conservation (SAC) designated under the Habitats Directive, which identifies sites of importance on a European scale. The South Dartmoor Woods SAC contains at least two confirmed breeding colonies of the barbastelle bat.

## Current factors affecting bat species on Dartmoor

Disturbance and loss of roosts in buildings, trees, mines and cave sites caused by human activities including the re-development of buildings, use of toxic timber treatment chemicals, blocking/ in-filling of cave/ mine entrances and unsympathetic tree management.

Loss and unsympathetic management of important, well-developed hedgerows and riparian trees that act as corridors for the bats to travel from roost sites to favoured feeding habitats.

Reduction in insect prey abundance, both through the intensification of agricultural systems, loss of wetlands and further loss, damage and fragmentation of ancient deciduous woodland, old hedgerows and tree lines, loss of permanent pasture in favour of rotational leys and arable production. Use of avermectin based chemicals at critical times of year can have a detrimental effect on the development of specific dung fauna, which forms a food source for several species of bats.

Gaps in surveys and a certain lack of robust data affects the conservation of bat species on Dartmoor.

A potential but as yet uncertain impact of climate change.

## Current action on Dartmoor

Over the past seven years Natural England, through the *Greater Horseshoe Bat Project* and *Action for Wildlife: The Dartmoor Biodiversity Project*, have been working to increase farmers' and landowners' awareness of the bats around known roosts within the National Park and in south Devon. The work has involved site visits to discuss ways in which current agricultural practices can be altered to increase suitable foraging habitat for the bats. In a number of cases suitable grant schemes have been adapted to incorporate ideal land management for the bats.

Members of the Devon Bat Group assist with data collection and the welfare of injured or grounded bats on Dartmoor as well as the rest of Devon. They also provide practical advice when needed, and are active in the promotion of bats through various media outlets. Natural England Bat Wardens assist roost owners with all bat related issues pertaining to UK and European legislation.

Both the Vincent Wildlife Trust and the Devon Wildlife Trust carry out survey, monitoring and management of bat populations at their reserves. Several bat species in the National Park, including the rare barbastelle, are monitored by volunteers as part of the Bat Conservation Trust's National Bat Monitoring Programme.

Over the past seven years a partnership of Dartmoor National Park Authority, Natural England, The Woodland Trust and the National Trust has carried out an extensive programme of survey and research that significantly improved the understanding of the distribution and status of bats on Dartmoor. Significant improvements have been achieved in taking account of protected species through the Dartmoor National Park Authority Development Control process. Numerous training and awareness raising events have been held for land managers, foresters, planners, conservation professionals and the general public.

## Summary of the habitat requirements and known population status of all 16 bat species found in the UK in relation to Dartmoor National Park

Species	Habitat Requirements	Status in England	Status on Dartmoor
Greater horseshoe bat	Permanent pasture, woodland edge, water, connected flightpaths (hedges etc.)	Increasing	Present
Lesser horseshoe bat	Woodland, permanent pasture, wetlands, connected flightpaths (hedges etc.)	Increasing	Present
Whiskered bat	Parkland, gardens, woodland	Stable	Present
Brandt's bat	Woodland, hedges, often near water	Stable	Present
Natterer's bat	Mainly deciduous, open woodland and parkland, well developed hedgerows and well vegetated watersides	Increasing	Present
Bechstein's bat	Mixed and old deciduous woodland as well as parkland	Unknown	Absent
Daubenton's bat	Open smooth water with some overhanging trees	Increasing	Present
Serotine	Woodland edge, tall hedgerows, parkland, pasture	Stable	Present
Noctule	Woodland and pasture	Stable	Present
Leisler's bat	Woodland and pasture, feeds around street lamps	Stable	Absent
Common pipistrelle	A wide range of habitats	Increasing	Present
Soprano pipistrelle	A wide range of habitats but prefers water	Stable	Present
Nathusius' pipistrelle	Woodland rides and paths, parkland, large waterbodies	Unknown	Present
Barbastelle	Dense woodland with lots of standing dead wood, scrub and woodland interface	Unknown	Present
Brown long-eared bat	Woodland, parkland, gardens	Stable	Present
Grey long-eared bat	Little known but may be similar to brown eared	Unknown	Absent

## Bats Key Conservation Objectives and Targets

### Bats Objectives

#### Objective 1

*Maintain and enhance, if appropriate, current populations of bats on Dartmoor.*

##### Dartmoor targets

- A** Improve knowledge of distribution of bats and bat roosts on Dartmoor by 2002.\*
- B** Identify key barbastelle maternity roosts and ensure that they are retained in a suitable condition for bats.
- C** Identify at least five key hibernation and autumn swarming sites and ensure that they are not threatened.
- D** Identify at least four opportunities for new bat roosts and carry out alterations to encourage use by bats.
- E** Ensure that all planning applications likely to affect bats (primarily re-roofing, house extensions, loft and barn conversions) have an appropriate bat survey carried out and suitable mitigation approved prior to the granting of planning permission.
- F** Assess the likely implications of climate change for Dartmoor bat populations by 2008.

\* Target from original (2001) version of the BAP that has already been achieved and therefore not taken forward in the revised Action Plan.

#### Objective 2

*Improve management of foraging areas and commuting routes of all bat species.*

##### Dartmoor targets - see also Dartmoor Action Plans for all habitats

- A** Identify key foraging areas and commuting routes of known barbastelle bat colonies by 2008.
- B** Promote favourable management of key foraging areas and commuting routes of all bat species to landowners and managers through agri-environment and other support schemes.
- C** Ensure that 50% of farmed land within 4km of known greater horseshoe bat maternity roosts is in appropriate management agreements by 2011.
- D** Ensure favourable management of key foraging areas and commuting routes of barbastelle bats by 2016.

#### Objective 3

*Increase public awareness of Dartmoor National Park as a stronghold for bat species.*

##### Dartmoor targets

- A** Seek opportunities for including bats in a range of media on an annual basis.
- B** Work with roost owners, planners, architects and foresters to promote bat conservation in relation to building and woodland work.

# Actions for Bats on Dartmoor

Monitoring responsibility: Dartmoor National Park Authority

Action	Meets Objective/ Target	Deliverer		Complete by					Date achieved
		Lead	Partners	2007	2008	2011	2016	On-going	
<b>Policy and Legislation</b>									
Include protection policies for bats in all statutory plans when they are reviewed	1, 2	DNPA	EA, NE						●
Ensure that DNPA implement the Planning Policy Statement in PPS9 in respect to all bats, their roosts and any linear features used for commuting or feeding	1E	DNPA	NE	●					
<b>Site Safeguard</b>									
Promote and carry out where appropriate, site safeguard works and improvements to roosts including those that once held large populations ie. fit grilles, signs etc.	1B, 1C	NE, DNPA	AFW						●
Ensure that all known roosts and their immediate surroundings are identified within GIS systems used within DNPA. Make new data available to DBRC, the National Biodiversity Network and partner organisations annually	1A, 1B, 1C	DNPA	NE, DBRC						●
Develop appropriate grant funding for small but important habitat enhancement close to major roosts ie. hedge planting or scrub clearance, as appropriate	2B, 2C, 2D	DNPA	NE, AFW						●
Promote the maintenance of continuous tall wide hedges (> 3m tall) containing some overhanging trees, especially those close to major roosts which act as corridors for bats commuting between feeding sites	2B, 2D	NE	DNPA			●			
<b>Habitat Management</b>									
Promote the appropriate management of grazed pasture within 4km of major breeding roosts of the greater horseshoe bat	2C	NE, DNPA	AFW			●			

(cont.)

## Actions for Bats on Dartmoor (cont.)

Action	Meets Objective/ Target	Deliverer		Complete by					Date achieved
		Lead	Partners	2007	2008	2011	2016	On-going	
<b>Habitat Management</b>									
Promote the appropriate management of woodlands, in particular mixed woodlands within 4km of the known greater horseshoe bat roosts and key woodland foraging and roosting sites of other species	2B, 2C, 3B	FC	NE, DNPA			●			
Protect all riparian habitats including wet meadows and ponds close to greater horseshoe bat roosts	2C	DNPA	EA			●			
Encourage water quality levels, which will help to support populations of aquatic insects on which bats feed	2B, 2D	EA	SWW, DNPA					●	
Initiate a landscape-scale conservation project to ensure favourable management of key foraging areas and commuting routes of barbastelle bats	2D	DNPA	NE, NT, WT			●			
<b>Advisory</b>									
Offer advisory services to roost owners with a view to retaining as many roost sites as possible	1B, 1C, 1D, 3B	NE, DBG	DNPA, WT					●	
Offer advisory services to land managers on agricultural practices that are beneficial for bats, seeking to phase out the use of avermectins within 4km of greater horseshoe bat roosts.	2C	AFW/ NE	DNPA					●	
Promote ideal hedge management practices to provide feeding areas and commuting routes	2B, 2C, 2D	DHG, NE						●	
Seek to establish potential new roosts in suitable areas through the provision of accessible roof spaces	1D	DNPA	NE, DBG					●	
Promote the 'Woodland Management for Bats' best practice guidelines to woodland owners, managers and tree surgeons	2B, 3B	DNPA	NE, FC, WT, NT					●	

Actions for Bats on Dartmoor (cont.)

Action	Meets Objective/ Target	Deliverer		Complete by					Date achieved
		Lead	Partners	2007	2008	2011	2016	On-going	
<b>Research and Monitoring</b>									
Annually exchange information on the distribution of all bat species on Dartmoor	1, 2, 3	DNPA, DBRC	NE, NBN						●
Annually review and implement the Dartmoor bat survey strategy	1, 2	DNPA	NE, WT, NT						●
Identify key travel routes and foraging areas of known barbastelle bat colonies	2A	DNPA	NE, WT, NT		●				
Pilot a survey of bat activity in selected underground sites	1C	WT/NT	DNPA/NE	●					
Commission a study to collate information on mine adits/ underground sites on Dartmoor and develop a strategy for further survey and conservation	1C	NE	DNPA, WT, NT	●					
Implement the strategy for further survey and conservation of key underground sites on Dartmoor	1C	NE/ DNPA				●			
Assess the likely implications of climate change for Dartmoor's bat populations.	1F	NE/ DNPA			●				
Monitor known roosts of key species as part of the National Bat Monitoring Programme	1	BCT/ DNPA	NE, VWT, DBG						●
<b>Communicate and Publicity</b>									
Raise awareness and understanding of the bats' requirements amongst the general public by producing articles in newspapers and journals	3A	DNPA, NE	DWT, DBG, AFW, BCT						●
Promote bat friendly building and woodland management practices to landowners, architects, planners, householders, conservation managers and foresters through personal contact, training events and publicity	3B	DNPA, NE	DBG, BCT						●

Abbreviations used in this table:

AFW – Action for Wildlife Project, BCT - Bat Conservation Trust, DBG - Devon Bat Group, DBRC – Devon Biodiversity Records Centre, DNPA - Dartmoor National Park Authority, DWT - Devon Wildlife Trust, EA - Environment Agency, FC - Forestry Commission, NE – Natural England, NBN – National Biodiversity Network, NT – National Trust, SWW – South West Water, VWT - Vincent Wildlife Trust, WT – Woodland Trust.