European Community Directive
on the Conservation of Natural Habitats
and of Wild Fauna and Flora
(92/43/EEC)

Second Report by the United Kingdom under Article 17

on the implementation of the Directive from January 2001 to December 2006

Conservation status assessment for

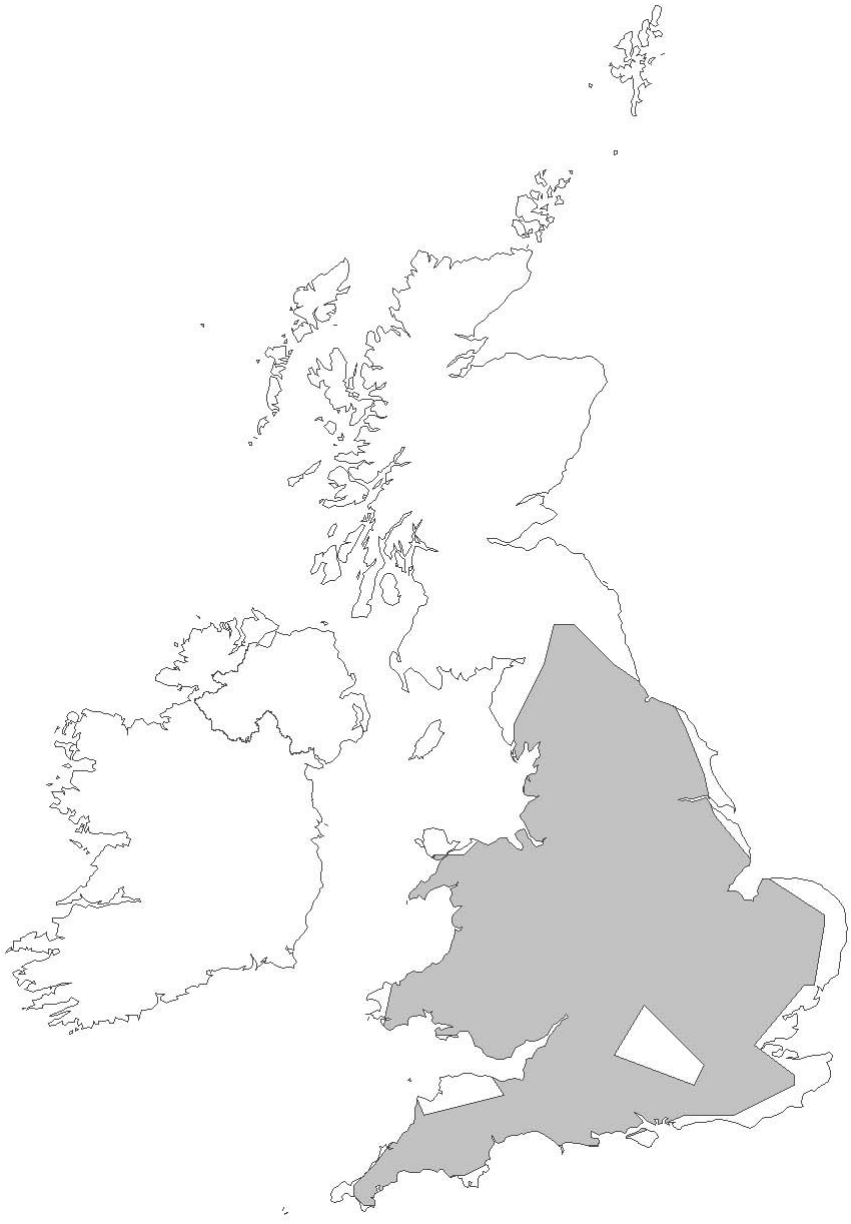
Species:

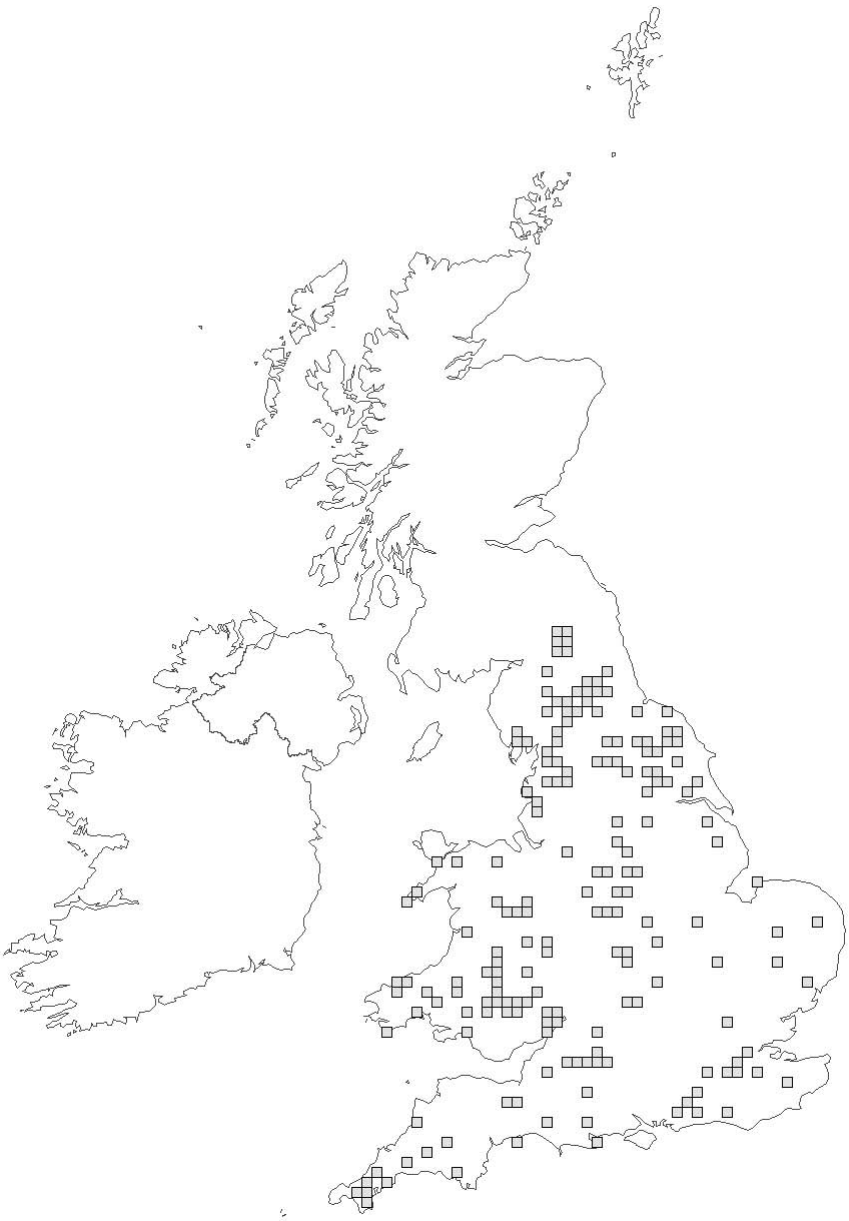
S1320 - *Myotis brandtii* - Brandt's bat

The information in this assessment corresponds to the "species fact sheet" submitted by the UK to the European Union in February 2008 (second and final submission). Please note that this is a section of the UK's report. For the complete report visit http://www.jncc.gov.uk/article17

Please cite as: Joint Nature Conservation Committee. 2007. *Second Report by the UK under Article 17 on the implementation of the Habitats Directive from January 2001 to December 2006*. Peterborough: JNCC. Available from: www.jncc.gov.uk/article17

Species Name: *Myotis brandtii*

1. National level	
Species Code	S1320
Member State	United Kingdom
Biogeographic regions concerned within the Member state	ATL
1.1 Range map	

1.2 Distribution map	
2. Biogeographic level	
2.1 Biogeographic region	ATL
2.2 Published sources and/or websites	BAT CONSERVATION TRUST. 2006. The National Bat Monitoring Programme Annual Report 2005. Available to download from Bat Conservation Trust website (www.bats.org.uk) and Tracking Mammals Partnership website (www.trackingmammals.org). BATTERSBY, J. (Ed.) & TRACKING MAMMALS PARTNERSHIP. 2005. UK Mammals: Species Status and Population Trends. JNCC/Tracking Mammals Partnership. BOYE, P. & DIETZ, M. 2005. Research Report No 661: Development of good practice guidelines for woodland management for bats. English Nature, Peterborough. EKMAN, M. & DE JONG, J. 1996. Local patterns of distribution and resource utilisation of four bat species (*Myoits brandtii, Eptesicus nilsonii,*

Plecotus auritus and *Pipistrellus pipistrellus*) in patchy and continuous environments. Journal of Zoology, 238, 571-580.

HAINES-YOUNG, R.H., BARR, C.J., BLACK, H.I.J., BRIGGS, D.J., BUNCE, R.G.H.,
CLARKE, R.T., COOPER, A., DAWSON, F.H., FIRBANK, L.G., FULLER, R.M., FURSE,
M.T., GILLESPIE, M.K., HILL, R., HORNUNG, M., HOWARD, D.C., McCANN, T.,
MORECROFT, M.D., PETIT, S., SIER, A.R.J., SMART, S.M., SMITH, G.M., STOTT,
A.P., STUART, R.C. & WATKINS, J.W. 2000. Accounting for nature: assessing habitats in
the UK countryside. Countryside Survey 2000. DETR, HMSO, London.

HARRIS, S., MORRIS, P., WRAY, S. & YALDEN, D. 1995. A review of British Mammals: population estimates and conservation status of British mammals other than cetaceans. JNCC, Peterborough.

NORBERG, U.M. & RAYNER, J.M.V. 1987. Ecological morphology and flight in bats (Mammalia: Chiroptera): Wing adaptations, flight performance, foraging strategy and echolocation. Philosophical Transactions of the Royal Society, London B, 316, 335-427.

PARSONS, K. N., JONES, G & GREENAWAY, F. 2003. Swarming activity of temperate zone microchiropteran bats: effects of season, time of night and weather conditions. Journal of Zoology, 261: 257-264

RICHARDSON, P. 2000. Distribution atlas of bats in Britain and Ireland 1980-1999. Bat Conservation Trust, London.

RUSS, J.M. 1999. The Microchiroptera of Northern Ireland: community composition, habitat associations and ultrasound. Unpublished PhD thesis. Queen's University, Belfast.

SCHOBER, W. & GRIMMBERGER, E. 1989. A Guide to the Bats of Britain and Europe. Hamlyn Publishing Group Ltd, London.

TAAKE, K-H. & VIERHAUS, H. 1984. Die Saugetiere Westfalens. Rauthautfledermaus - Pipistrelleus nathusii (Keyserling un Blasius,1839).

ZAHN, A. & RUPP, D. 2004. Ectoparasite loading in European vespertilionid bats. Journal of Zoology, 262, 1-9.

Map Data Sources

Biological Records Centre - Mammals Database 100m; Environment and Heritage Service - Species Dataset; Natural England - Batsites inventory for Britain (via National Biodiversity Network (NBN) Gateway).

Bat conservation Trust National Bat Monitoring Programme (NBMP) data to 2005 including: Hibernation Survey (1997-2005).

	Bat Conservation Trust Distribution atlas of bats in Britain and Ireland 1980-1999, GB data only.			
2.3 Range of species in the biogeographic region or marine region				
2.3.1 Surface range of the species (sq km)	127379			
2.3.2 Date of range determination	1980-2006			
2.3.3 Quality of data concerning range	Poor			
2.3.4 Range trend	Stable (=)			
2.3.5 Range trend magnitude (%)	Not applicable			
2.3.6 Range trend period	1980-2006			
2.3.7 Reasons for reported trend	Not applicable			
2.4 Population				
2.4.1 Population size estimation	Minimum	30000	Maximum	30000
	Units	Individuals		
2.4.2 Date of population estimation	1995			
2.4.3 Method used for population estimation	1 - Based on expert opinion			
2.4.4 Quality of population data	Poor			
2.4.5 Population trend	Stable (=)			
2.4.6 Population trend magnitude (%)	Not applicable			
2.4.7 Population trend period	1997-2006			
2.4.8 Reasons for reported trend	3 - Direct human influence;			
2.4.9 Justification of % thresholds for trends (optional)	The 3.3% annual increase recorded here is not significant because of small sample sizes and wide confidence limits and is, therefore, not reported as an increase even though it is above the 1% threshold. For this reason the trend is considered currently stable.			
2.4.10 Main pressures	110 - Use of pesticides; 141 - Abandonment of pastoral systems; 151 - Removal of hedges and copses; 160 - General Forestry management; 164 - Forestry clearance; 165 - Removal of undergrowth; 166 - Removal of dead and dying trees; 167 - Exploitation without replanting; 401 - continuous urbanisation; 502 - routes, autoroutes; 624 - mountaineering, rock climbing, speliology; 701 - water pollution; 803 - infilling of ditches, dykes, ponds, pools, marshes or pits;			
2.4.11 Threats	110 - Use of pesticides; 141 - Abandonment of pastoral systems; 151 - Removal of hedges and copses; 160 - General Forestry management; 164 - Forestry clearance; 165 - Removal of undergrowth; 166 - Removal of dead and dying trees; 167 - Exploitation without replanting; 401 - continuous urbanisation; 502 - routes, autoroutes; 624 - mountaineering, rock climbing, speliology; 701 - water pollution; 803 - infilling of ditches, dykes, ponds, pools, marshes or pits;			
2.5 Habitat for the species in the biogeographic region or marine region				
2.5 Habitats for the species	*M. brandtii* requires a complex mosaic of habitats to support foraging, roosting and commuting behaviour. The species has wing morphology and			

	echolocation calls which indicate that they forage in edge or cluttered habitats (Norberg & Rayner 1987) and in broadleaf forest with particularly damp areas, close to water. Coniferous woodland, forest edges and clearings also frequently used (Boye & Dietz 2005). The species is negatively affected by habitat isolation and may be particularly vulnerable to increased forest patchiness (Ekman & DeJong 1996). In England, a radiotracking study found the species had a maximum foraging distance of 2.3 km from the roost. The species also swarms at underground sites August - October, with a peak in early August (Parsons et al. 2003). The purpose of this behaviour is not fully understood, but mating or information transfer are possible explanations (Parsons et al. 2003) and these sites should also be considered important habitat features for the species. Loose bark and large holes in tree trunks are the original roost sites of *M. brandtii*, but tree holes and bat boxes are also used, especially by males during mating time. Maternity colonies are more commonly found in buildings in wall crevices or roof lofts, and more rarely in trees, bridges and bat boxes (Schober & Grimmberger 1989; Zahn & Rupp 2004). Winter roosts are commonly in disused mines and caves, occasionally in cellars (Schober & Grimmberger 1989).
2.5.2 Area estimation (sq km)	Unknown
2.5.3 Date of estimation	2006
2.5.4 Quality of data	Poor
2.5.5 Trend of the habitat	Unknown (X)
2.5.6 Trend period	1990-1998
2.5.7 Reasons for reported trend	Not applicable
2.6 Future prospects	
2.6 Future prospects for the species	Unknown
2.7 Complementary information	
2.7.1 Favourable reference range (sq km)	127379
2.7.2 Favourable reference population	
2.7.3 Suitable Habitat for the species	Unknown
2.7.4 Other relevant information	
2.8 Conclusions ***(assessment of conservation status at end of reporting period)***	
(2.3) Range	(FV) - Favourable
(2.4) Population	(XX) - Unknown
(2.5) Habitat for the species	(XX) - Unknown
(2.6) Future prospects	(XX) - Unknown
Overall assessment	(XX) - Unknown