

**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:  
S1327 - *Eptesicus serotinus* - Serotine**

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>

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**Species Name: *Eptesicus serotinus***

<b>1. National level</b>	
Species Code	S1327
Member State	United Kingdom
Biogeographic regions concerned within the Member state	ATL
1.1 Range map	 A map of the United Kingdom showing the distribution of <i>Eptesicus serotinus</i> . The distribution is indicated by a shaded grey area covering the south and east of England, including the counties of Kent, Surrey, Sussex, Hampshire, and West Sussex. The rest of the United Kingdom, including Ireland, Scotland, and Northern Ireland, is unshaded.

## 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](http://www.bats.org.uk)) and Tracking Mammals Partnership website ([www.trackingmammals.org](http://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.

CATTO, C.M.C., HUTSON, A.M. & RACEY, P.A. 1994. The diet of *Eptesicus serotinus* in southern England. *Journal of Zoology*, London, 238,

	<p>623-632.</p> <p>CATTO, C.M.C., HUTSON, A.M., RACEY, P.A. &amp; STEPHENSON, P.J. 1996. Foraging behaviour and habitat use of the serotine bat (<i>Eptesicus serotinus</i>) in southern England. <i>Journal of Zoology</i>, London, 235, 635-644</p> <p>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. &amp; WATKINS, J.W. 2000. Accounting for nature: assessing habitats in the UK countryside. <i>Countryside Survey 2000</i>. DETR, HMSO, London.</p> <p>HARRIS, S., MORRIS, P., WRAY, S. &amp; YALDEN, D. 1995. A review of British Mammals: population estimates and conservation status of British mammals other than cetaceans. JNCC, Peterborough.</p> <p>RICHARDSON, P. 2000. Distribution atlas of bats in Britain and Ireland 1980-1999. Bat Conservation Trust, London.</p> <p>SPEAKMAN, J.R. 1991. The impact of predation by birds on bat populations in the British Isles. <i>Mammal Review</i>, 21, 123-142.</p> <p>Map data sources</p> <p>Bat Conservation Trust - National Bat Monitoring Programme (NBMP) data to 2005 including: Colony survey (1995-2006), Field survey (1998-2006).</p> <p>Bat Conservation Trust - Bats and Mammals Road Survey data (2005)</p> <p>Bat Conservation Trust - Distribution atlas of bats in Britain and Ireland 1980-1999, GB data only.</p> <p>Biological Records Centre - Mammals Database; Devon Biodiversity Records Centre - Devon incidental species records 1950-2002; Natural England - Batsites inventory for Britain (via the National Biodiversity Network (NBN) Gateway)</p>
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### 2.3 Range of species in the biogeographic region or marine region

2.3.1 Surface range of the species (sq km)	67775
2.3.2 Date of range determination	1980-2006
2.3.3 Quality of data concerning range	Moderate
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			
<b>2.4 Population</b>				
2.4.1 Population size estimation	Minimum	15000	Maximum	15000
	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	1998-2005			
2.4.8 Reasons for reported trend	Not applicable			
2.4.9 Justification of % thresholds for trends (optional)	Not applicable			
2.4.10 Main pressures	101 - Modification of cultivation practices; 110 - Use of pesticides; 141 - Abandonment of pastoral systems; 151 - Removal of hedges and copses; 160 - General Forestry management; 164 - Forestry clearance; 167 - Exploitation without replanting;			
2.4.11 Threats	101 - Modification of cultivation practices; 110 - Use of pesticides; 141 - Abandonment of pastoral systems; 151 - Removal of hedges and copses; 160 - General Forestry management; 164 - Forestry clearance; 167 - Exploitation without replanting;			
<b>2.5 Habitat for the species in the biogeographic region or marine region</b>				
2.5 Habitats for the species	<p><i>E. serotinus</i> requires a complex mosaic of habitats to support foraging, roosting and commuting behaviour. Boye &amp; Dietz (2005) provide a good overview of this species' habitat requirements.</p> <p>In most cases the foraging areas are open fields with woodland edge, but occasionally within woodland. In agricultural landscapes the bats prefer pasture with tree rows for protection from wind. In addition forest edges, river banks, parks, tree rows, gardens and amenity areas are appropriate foraging areas. The species also forages around streetlights. <i>E. serotinus</i> feeds mainly on beetles, especially ground chafer and dung beetles, moths and midges.</p> <p>In maternity colonies the foraging areas are at an average distance of 1.25 km from the roost, to a maximum of 5.7 km. In towns the serotine rarely forages further than 1 km from the roost.”</p> <p>Preferred summer roosts include crevices and other narrow holes in houses. Until now maternity colonies have only been recorded in buildings. The bats roost below the ridge of a roof, behind fascia boards, in ventilation holes of new housing blocks, or in the extension slits of bridges. Single animals, males in most cases, sometimes use tree holes or bat boxes. The serotine changes its roost site or hanging place if the microclimate in the roost becomes uncomfortable, e.g. if temperatures rise too much.</p>			

	Winter roosts are in cellars, mines and caves, in old buildings and crevices in walls. Bats occasionally hibernate in their summer roost. Summer and winter roosts are thought to be less than 50 km apart, but there is little evidence to support this.
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
<b>2.6 Future prospects</b>	
2.6 Future prospects for the species	Unknown
<b>2.7 Complementary information</b>	
2.7.1 Favourable reference range (sq km)	67775
2.7.2 Favourable reference population	15000
2.7.3 Suitable Habitat for the species	Unknown
2.7.4 Other relevant information	
<b>2.8 Conclusions</b> <i>(assessment of conservation status at end of reporting period)</i>	
(2.3) Range	(FV) - Favourable
(2.4) Population	(FV) - Favourable
(2.5) Habitat for the species	(XX) - Unknown
(2.6) Future prospects	(XX) - Unknown
Overall assessment	(XX) - Unknown