

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

Supporting documentation for the  
Third Report by the United Kingdom under  
Article 17

on the implementation of the Directive  
from January 2007 to December 2012  
Conservation status assessment for

Species:

S5009 - Soprano pipistrelle (*Pipistrellus pygmaeus*)

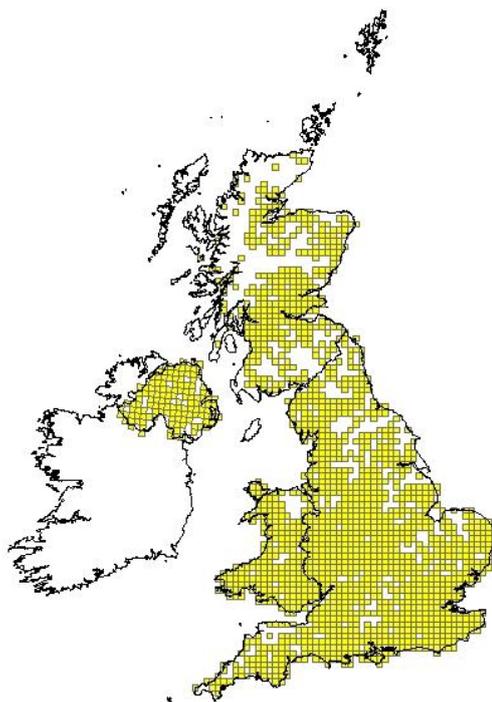
**IMPORTANT NOTE – PLEASE READ**

- The country-level reporting information contained in this document is a contribution to the Article 17 UK report for the habitat/species concerned.
- It has been provided by **Natural England** and refers only to the state of the habitat/species in **England** - it does not constitute an assessment for the whole of the UK.
- The Article 17 UK Approach document provides details on how this information has been used and, combined with information supplied by other Statutory Nature Conservation Bodies
- The format of the document is closely aligned to that set out by the European Commission for Member State reporting – as a result, some of the fields are not applicable at a country-level and have deliberately been left blank – in addition, the content of most fields is constrained by the EC reporting categories.

## Reporting format on the 'main results of the surveillance under Article 11' for Annex II, IV & V species

<i>Field name</i>	<i>Brief explanations</i>	
<b>0.2 Species</b>	<b>0.2.1 Species code</b>	<b>S5009</b>
	<b>0.2.2 Species scientific name</b>	<b><i>Pipistrellus pygmaeus</i></b>
	<b>0.2.3 Alternative species scientific name</b> Optional	
	<b>0.2.4 Common name</b> Optional	<b>Soprano pipistrelle</b>

<b>1.1 Maps</b>		
<b>1.1.1 Distribution map</b>		<b>Sensitive</b> <b>False</b>
	P. pygmaeus is widely distributed throughout England with gaps in distribution probably reflecting an absence of survey data rather than an absence of the species.	



<b>1.1.2 Method used - map</b>	<b>Complete survey/Complete survey or a statistically robust estimate</b>
	P. pygmaeus commonly roosts in houses and many records come from requests for information or advice. The widespread use of bat detectors and structured surveys for the National bat monitoring programme has increased the number of records in recent years.
<b>1.1.3 Year or period</b>	<b>2000-2012</b>
	Pipistrellus pipistrellus (s.l) was divided into P. pipistrellus (s.s.) and P.

	pymaeus in 1999, so field records prior to this cannot be assigned to either species with confidence.
<b>1.1.4 Additional distribution map</b>	<b>False</b>
<b>1.1.5 Range map</b>	

<b>2.1 Biogeographical region &amp; marine regions</b>	<b>ATL</b>
<b>2.2 Published sources</b>	<p>"BARRATT, E.M. et al (1997). DNA answers the call of pipistrelle bat species. <i>Nature</i>, London, 387, 138-139.</p> <p>BAT CONSERVATION TRUST, 2012. The National Bat Monitoring Programme. Annual Report 2011. Bat Conservation Trust, London. (<a href="http://www.bats.org.uk">www.bats.org.uk</a>)</p> <p>BATTERSBY, J (Ed.). 2005. UK Mammals: Species Status and Population Trends. JNCC/Tracking Mammals Partnership.</p> <p>BOYE, P. &amp; DIETZ, M. 2005. Research Report No 661: Development of good practice guidelines for woodland management for bats. English Nature, Peterborough.</p> <p>DAVIDSON-WATTS, I. AND JONES, G. (2006), Differences in foraging behaviour between <i>Pipistrellus pipistrellus</i> (Schreber, 1774) and <i>Pipistrellus pygmaeus</i> (Leach, 1825). <i>Journal of Zoology</i>, 268: 55–62.</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>JONES, G. &amp; BARRATT, E.M. (1999) <i>Vespertilio pipistrellus</i> Schreber, 1774 and <i>V. pygmaeus</i> Leach, 1825 (currently <i>Pipistrellus pipistrellus</i> and <i>P.pygmaeus</i>; Mammalia, Chiroptera): proposed designation of neotypes. <i>Bulletin of Zoological Nomenclature</i>, 56, 182-186.</p> <p>JONES, G &amp; RACEY, P.A. 2008. Common pipistrelle <i>Pipistrellus pipistrellus</i>, Soprano pipistrelle <i>Pipistrellus pygmaeus</i>. Pages 343-351 In HARRIS, S &amp; YALDEN, D.W. <i>Mammals of the British Isles: Handbook</i>, 4th edition. The Mammal Society, Southampton.799pp.</p> <p>MITCHELL-JONES, T.J. 2010. Bats in houses – the conservation challenge. Pp 365-378 in <i>Species Management: challenges and solutions for the 21st century</i>. BAXTER, J.M. &amp; GALBRAITH, C.A. TSO Scotland, Edinburgh.</p> <p>NATURAL ENGLAND. 2012. Bats and Onshore Wind Turbines: Interim Guidance. Natural England Technical Information Note TIN051, Natural England, Sheffield.</p> <p>NICHOLLS, B. &amp; RACEY, P. 2006a. Habitat selection as a mechanism of resource partitioning in two cryptic bat species <i>Pipistrellus pipistrellus</i> and <i>Pipistrellus pygmaeus</i>. <i>Ecography</i>, 29, 697-708.</p> <p>NICHOLLS, B. &amp; RACEY, P. 2006b. Contrasting home-range size and spatial partitioning in cryptic and sympatric pipistrelle bats. <i>Behavioural Ecology and Sociobiology</i>, 61, 131-142.</p> <p>RICHARDSON, P. (2000) <i>Distribution atlas of bats in Britain</i></p>

	<p>and Ireland 1980-1999. Bat Conservation Trust, London.</p> <p><b>SPEAKMAN, J.R. 1991. The impact of predation by birds on bat populations in the British Isles. Mammal Review, 21, 123-142.</b></p> <p><b>YALDEN, D.W. Mammals of the British Isle: Handbook, 4th Edition. The Mammal Society, Southampton. 799pp."</b></p>

<b>2.3 Range</b>	
<b>2.3.1 Surface area Range</b>	A widely distributed species. The division of <i>P pipistrellus</i> (s.l.) into two separate species in about 2000 means that older data cannot be ascribed to either species with confidence.
<b>2.3.2 Method used Surface area of Range</b>	<b>Complete survey/ Complete survey or a statistically robust estimate</b>
<b>2.3.3 Short-term trend Period</b>	<p>The species has been monitored since 1998 as part of the National Bat Monitoring Programme (NBMP). However, records prior to 1999 cannot be assigned to this species as it was separated from <i>P. pipistrellus</i> s.l. in this year. The species is often found in buildings and its presence is recorded when advice is sought regarding building renovation or development, so recording effort is likely to be high.</p> <p>The representation of range and distribution is likely to be accurate but not comprehensive due to an absence of survey data rather than an absence of the species.</p>
<b>2.3.4 Short term trend Trend direction</b>	The current range is across the whole of the UK and there has been no apparent change in range during the specified time period 2001-2012.
<b>2.3.5 Short-term trend Magnitude</b>	<b>a) Minimum</b>
	<b>b) Maximum</b>
<b>2.3.6 Long-term trend Period</b>	
<b>2.3.7 Long-term trend Trend direction</b>	
<b>2.3.8 Long-term trend Magnitude</b>  Optional	<b>a) Minimum</b>

	<b>b) Maximum</b>	
<b>2.3.9 Favourable reference range</b>	<b>a) Value in km<sup>2</sup></b>	
	<b>b) Operator for FRR</b>	
	<b>c) FRR is unknown (indicated by "true")</b>	<b>False</b>
	<b>d) Method used to set FRR</b>	
<b>2.3.10 Reason for change</b> Is the difference between the reported value in 2.3.1 and the previous reporting round mainly due to...	<b>a) Genuine change?</b>	<b>False</b>
	<b>b) Improved knowledge/more accurate data?</b>	<b>False</b>
	<b>c) Use of different method (e.g. "Range tool")?</b>	<b>False</b>

<b>2.4 Population</b>		
<b>2.4.1 Population size estimation</b> (using individuals or agreed exceptions where possible)	<b>a) Unit</b>	<b>number of individuals</b>
		For this report, the GB population estimate given in Battersby (2005) has then been split between the 3 countries in the same ratio as the estimate for 'pipistrelle' from Harris et al (1995) (E: 0.625, S: 0.275, W: 0.100).
	<b>b) Minimum</b>	<b>450000</b>
	<b>c) Maximum</b>	<b>450000</b>
<b>2.4.2 Population size</b>	<b>a) Unit</b>	

<b>estimation</b> (using population unit other than individuals) Optional ( <i>if 2.4.1 filled in</i> )	<b>b) Minimum</b>	
	<b>c) Maximum</b>	
<b>2.4.3 Additional information on population estimates / conversion</b> Optional	<b>a) Definition of "locality"</b>	
	<b>b) Method to convert data</b>	
	<b>c) Problems encountered to provide population size estimation</b>	
<b>2.4.4 Year or period</b>	<b>2005-</b> A population estimate (for <i>P. pipistrellus</i> s.l.) was published by Harris et al (1995) and updated to account for the split into two species by Battersby (2005), though the latter estimate did not split the population between England, Scotland and Wales.	
<b>2.4.5 Method used Population size</b>	<b>Estimate based on partial data with some extrapolation and/or modelling</b> The estimates were based on expert judgement and extrapolation from limited field surveys. The 1995 population estimate for <i>P. pipistrellus</i> (s.l.) in GB was based on very limited information, extrapolating from known size and distribution of colonies in Scotland following the methods described by Speakman (1991) and Harris et al. (1995). The estimate of approximately 2,000,000 individuals included the undescribed <i>P. pygmaeus</i> . A GB estimate for <i>P. pygmaeus</i> was obtained in 2005, using ratio of <i>P. pipistrellus</i> to <i>P. pygmaeus</i> encountered in the UK National Bat Monitoring Programme (NBMP) Field Survey (BCT 2006), which was approximately two <i>P. pipistrellus</i> to each <i>P. pygmaeus</i> . For this report, the GB population has then been split between the 3 countries in the same ratio as the estimate for 'pipistrelle' from Harris et al (1995) (E: 0.625, S: 0.275, W: 0.100).	
<b>2.4.6 Short-term trend Period</b>	The ratio of <i>P. pygmaeus</i> to <i>P. pipistrellus</i> should be taken with caution, because the two species display different foraging behaviour, with <i>P. pipistrellus</i> having smaller colonies and foraging at greater distances from roosts (Nicholls & Racey, 2006a, 2006b). This would suggest that <i>P. pipistrellus</i> might have a more even and widespread distribution across the landscape and might be encountered more frequently in randomly designed survey schemes. <i>P. pygmaeus</i> forages preferentially near water and have larger colonies with smaller foraging distances. It might, therefore, be expected to have a patchier distribution than <i>P. pipistrellus</i> with less frequent foraging in the wider landscape and encountered less in random surveys.	
<b>2.4.7 Short-term trend</b>		

<b>Trend direction</b>		
<b>2.4.8 Short-term trend Magnitude</b>	<b>a) Minimum</b>	
	<b>b) Maximum</b>	
	<b>c) Confidence interval</b>	
<b>2.4.9 Short-term trend Method used</b>		
<b>2.4.10 Long-term trend – Period</b>		
<b>2.4.11 Long-term trend Trend direction</b>		
<b>2.4.12 Long-term trend Magnitude</b> Optional	<b>a) Minimum</b>	
	<b>b) Maximum</b>	
	<b>c) Confidence interval</b>	
<b>2.4.13 Long term trend Method used</b>		
<b>2.4.14 Favourable reference population</b>	<b>a) Number of individuals/agreed exceptions/other units</b>	
	<b>b) Operator</b>	
	<b>c) FRP is unknown</b>	<b>False</b>

	<b>indicated by "true"</b>	
	<b>d) Method used to set FRP</b>	
<b>2.4.15 Reason for change</b> Is the difference between the value reported at 2.4.1 or 2.4.2 and the previous reporting round mainly due to:	<b>a) Genuine change?</b>	<b>False</b>
	<b>b) Improved knowledge/more accurate data?</b>	<b>False</b>
	<b>c) Use of different method (e.g. "Range tool")?</b>	<b>False</b>

<b>2.5 Habitat for the species</b>	
<b>2.5.1 Area estimation</b>	<b>109500</b>  P. pygmaeus requires a complex mosaic of habitats to support foraging, roosting and commuting behaviour. Summer roosts tend to be found in tree holes, behind loose bark, in bat boxes and within the cracks and crevices of new and old buildings. Winter roost sites tend to be within trees, and the wall crevices of buildings. The species prefers to forage over riparian habitat and around the canopy of broad-leaved trees. Thus, it does not occur in large, dense woodlands but forages along river banks, forest edges and in settlements. It requires hedgerows and treelines to provide habitat connectivity for foraging and commuting between foraging sites (Davidson-Watts & Jones 2006; Nicholls & Racey, 2006a, 2006b).  There is thought to be a sufficient amount of habitat in the UK to support a viable population of the species.
<b>2.5.2 Year or period</b>	<b>2012-</b>
<b>2.5.3 Method used Habitat for the species</b>	<b>Estimate based on expert opinion with no or minimal sampling</b>
<b>2.5.4 Quality of the habitat</b>	<b>a) Habitat quality</b> <b>Unknown</b>
	<b>b) Assessment method</b> <b>P. pygmaeus requires a complex mosaic of habitats to support foraging, roosting and commuting behaviour. In order to obtain an estimate of habitat extent, it would be necessary to first identify all of</b>

		<p>the foraging and roosting habitat located within the current range boundary; determine whether or not each of these features were being used; and subsequently calculate the combined area of all currently used habitats. This process would require very detailed habitat information at a fine scale across the UK. We do not currently have this level of information. Therefore, the quality of the habitat is unknown.</p> <p>As this is a generalist species, using a mosaic of habitats, the area of distribution is used as an estimate of habitat area. This is calculated from the number of filled 10km squares in the distribution map.</p>
<b>2.5.5 Short-term trend Period</b>	<b>2001-2012</b>	
<b>2.5.6 Short-term trend Trend direction</b>	<b>unknown</b>	
<b>2.5.7 Long-term trend Period</b>		
<b>2.5.8 Long-term trend Trend direction</b>		
<b>2.5.9 Area of suitable habitat for the species</b>	<b>a) Value in km<sup>2</sup></b>	<b>109500</b>
	<b>b) Absence of data indicated as '0'</b>	
<b>2.5.10 Reason for change</b> Is the difference between the value reported at 2.5.1 and the previous reporting round mainly due to	<b>a) Genuine change?</b>	<b>False</b>
	<b>b) Improved knowledge/more accurate data?</b>	<b>False</b>
	<b>c) Use of different method (e.g. "Range tool")?</b>	<b>False</b>

<b>2.6 Main pressures</b>		
<b>a) Pressure</b>	<b>b) Ranking</b>	<b>c) Pollution qualifier</b>
	H = high importance M = medium importance L = low importance	
A10: Restructuring agricultural land holding	H	
G05: Other human intrusions and disturbances	H	
A02: modification of cultivation practices	M	
A07: use of biocides, hormones and chemicals	M	
B02: Forest and Plantation management & use	M	
D01: Roads, paths and railroads	M	
H01: Pollution to surface waters (limnic & terrestrial, marine & brackish)	L	
J02: human induced changes in hydraulic conditions	L	

Pressures can generally be divided into those that affect roosts and those that affect commuting and foraging (including prey availability). Although roosts are strictly protected, a variable number of licences permitting exclusion is issued every year. In addition, changes in building practices to improve energy efficiency mean that new buildings may offer fewer roosting opportunities (Mitchell-Jones, 2010). Pipistrelles forage along linear features, over wetlands and in woodland clearings. Agricultural and forestry practices that remove or simplify these habitats, or affect the biomass of insect prey could negatively affect populations.

JONES, G & RACEY, P.A. 2008. Common pipistrelle *Pipistrellus pipistrellus*, Soprano pipistrelle *Pipistrellus pygmaeus*. Pages 343-351 In HARRIS, S & YALDEN, D.W. Mammals of the British Isles: Handbook, 4th edition. The Mammal Society, Southampton. 799pp.

MITCHELL-JONES, T.J. 2010. Bats in houses - the conservation challenge. PP 365-378 in Species Management: challenges and solutions for the 21st century.

<b>2.6.1 Method used – Pressures</b>	<b>mainly based on expert judgement and other data</b>
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<b>2.7 Threats</b>		
<b>a) Threat</b>	<b>b) Ranking</b>	<b>c) Pollution qualifier</b>
	H = high importance M = medium importance L = low importance	
G05: Other human intrusions and disturbances	H	
A07: use of biocides, hormones and chemicals	M	

B02: Forest and Plantation management & use	M	
C03: Renewable abiotic energy use	M	
D01: Roads, paths and railroads	M	
H01: Pollution to surface waters (limnic & terrestrial, marine & brackish)	L	
J02: human induced changes in hydraulic conditions	L	

Threats can generally be divided into those that affect roosts and those that affect commuting and foraging (including prey availability). Although roosts are strictly protected, a variable number of licences permitting exclusion is issued every year. In addition, changes in building practices to improve energy efficiency mean that new buildings may offer fewer roosting opportunities (Mitchell-Jones, 2010). Pipistrelles forage along linear features, over wetlands and in woodland clearings. Agricultural and forestry practices that remove or simplify these habitats, or affect the biomass of insect prey could negatively affect populations. This species is considered to be at high risk from onshore wind turbines, though specific data are lacking.

JONES, G & RACEY, P.A. 2008. Common pipistrelle *Pipistrellus pipistrellus*, Soprano pipistrelle *Pipistrellus pygmaeus*. Pages 343-351 In HARRIS, S & YALDEN, D.W. Mammals of the British Isles: Handbook, 4th edition. The Mammal Society, Southampton. 799pp.

MITCHELL-JONES, T.J. 2010. Bats in houses - the conservation challenge. PP 365-378 in Species Management: challenges and solutions for the 21st century.

NATURAL ENGLAND. 2012. Bats and Onshore Wind Turbines: Interim Guidance. Natural England Technical Information Note TIN051, Natural England. Sheffield.

<b>2.7.1 Method used – Threats</b>	<b>expert opinion</b>
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## 2.8 Complementary information

<b>2.8.1 Justification of % thresholds for trends</b>	
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<b>2.8.2 Other relevant information</b>	
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<b>2.8.3 Trans-boundary assessment</b>	
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## 2.9 Conclusions (*assessment of conservation status at end of reporting period*)

Please refer to the United Kingdom assessment for this species.

**3 Natura 2000 coverage & conservation measures - Annex II species**  
*(only applies to species listed under Annex II of the Directive)*
**3.1 Population**

<b>3.1.1 Population size</b>  Estimation of population size included in the SAC network	<b>a) Unit</b>	
	<b>b) Minimum</b>	
	<b>c) Maximum</b>	
<b>3.1.2 Method used</b>		
<b>3.1.3 Trend of population size within the network</b> (short-term trend)		

**3.2 Conservation measures**

Conservation measures taken (i.e. already being implemented) within the reporting period and provided information about their importance, location and evaluation.

3.2.1 Measure	3.2.2 Type					3.2.3 Ranking  H = high importance M = medium importance L = low importance	3.2.4 Location  where the measure is PRIMARILY applied			3.2.5 Broad evaluation of the measure					
	a) Legal/statutory	b) Administrative	c) Contractual	d) Recurrent	e) One-off		a) Inside	b) Outside	c) Both inside & outside	a) Maintain	b) Enhance	c) Long term	d) No effect	e) Unknown	f) Not evaluated

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