

**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:

S1317 - Nathusius' pipistrelle (*Pipistrellus nathusii*)

IMPORTANT NOTE – PLEASE READ

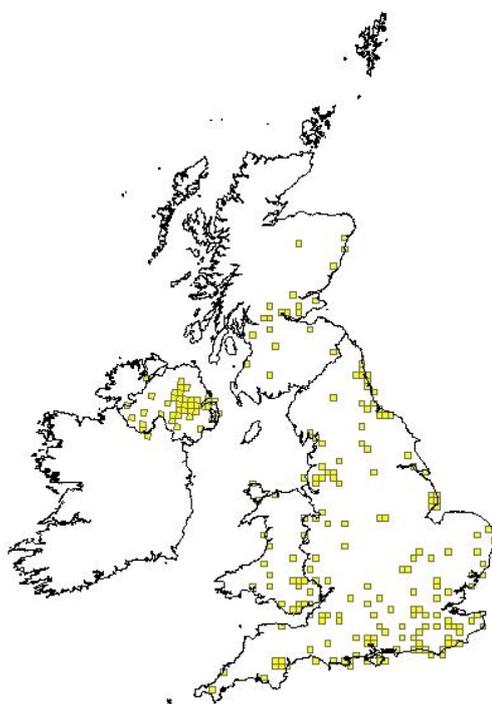
- The country-level reporting information contained in this document is a contribution to the Article 17 UK report for the habitat/species concerned.
- It has been provided by **Natural England** and refers only to the state of the habitat/species in **England** - it does not constitute an assessment 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>	
0.2 Species	0.2.1 Species code	S1317
	0.2.2 Species scientific name	<i>Pipistrellus nathusii</i>
	0.2.3 Alternative species scientific name Optional	
	0.2.4 Common name Optional	Nathusius' pipistrelle

1.1 Maps

1.1.1 Distribution map	Sensitive	False
<p>P. nathusii is a highly migratory species, moving south-westwards from northern continental Europe in autumn (Hutterer et al, 2005). A proportion of records from eastern England represent migratory individuals, as there is a clear peak in records during the autumn. A small number of breeding roosts are known from England, so it appears that the UK population consists of both residents and migrants.</p>		



1.1.2 Method used - map	Estimate based on partial data with some extrapolation and/or modelling
1.1.3 Year or period	2000-2012

1.1.4 Additional distribution map	False
1.1.5 Range map	

2.1 Biogeographical region & marine regions	ATL
2.2 Published sources	<p>"</p> <p>LUNDY, M., MONTGOMERY, I & RUSS, J. 2010. Climate change-linked range expansion of Nathusius' pipistrelle bat, <i>Pipistrellus nathusii</i> (Keyserling & Blasius, 1839). <i>J. Biogeogr.</i> 37(12): 2232-2242.</p> <p>HUTTERER, R., IVANOVA, T., MEYER-CORDS, C. & RODRIGUES, L. 2005. Bat Migrations in Europe: A review of banding data and literature. Federal Agency for Nature Conservation, Bonn.</p> <p>NATURAL ENGLAND. 2012. Bats and Onshore Wind Turbines: Interim Guidance. Natural England Technical Information Note TIN051, Natural England, Sheffield.</p> <p>RUSS, J.M., HUTSON, A.M., MONTGOMERY, W.I., RACEY, P.A. & SPEAKMAN, J.R. (2001) The status of Nathusius' pipistrelle (<i>Pipistrellus nathusii</i> Keyserling & Blasius, 1839) in the British Isles. <i>Journal of Zoology</i>, 254, 91–100.</p> <p>RUSS, J.M., JONES, G., RACEY, P.A. & HUTSON, A.M. 2008. Nathusius' pipistrelle <i>Pipistrellus nathusii</i>. Pp 351-355 in HARRIS, S & YALDEN, D.W. <i>Mammals of the British Isles: Handbook</i>, 4th edition. The Mammal Society, Southampton. 799pp."</p>

2.3 Range	
2.3.1 Surface area Range	<p><i>P. nathusii</i> is a highly migratory species, moving south-westwards from northern continental Europe in autumn (Hutterer et al, 2005). Records from eastern England represent migratory individuals as there is a clear peak in records during the autumn. A small number of breeding roosts are known from England, so it appears that the UK population consists of both residents and migrants.</p> <p><i>P. nathusii</i> can be monitored with bat detectors. However, the uncertainty regarding the proportion of migrants to residents makes the determination of trends complex.</p>
2.3.2 Method used Surface area of Range	Estimate based on partial data with some extrapolation and/or modelling
2.3.3 Short-term trend Period	2001-2012
	The number of records of this species has increased greatly since the last reporting round in 2007, largely due to recorder effort and individual research projects. However, it's becoming clear that a

	proportion of the eastern records for England represent migratory individuals as there is a clear peak in records during the autumn.	
2.3.4 Short term trend Trend direction	increase	
	This species has clearly been under recorded in the past and many new bat detector records have increased knowledge of the species range considerably since the 2007 report. However, defining the species range is complicated by its migratory nature and it is unclear whether the species is permanently resident throughout the range shown.	
2.3.5 Short-term trend Magnitude	a) Minimum	
	b) Maximum	
2.3.6 Long-term trend Period		
2.3.7 Long-term trend Trend direction		
2.3.8 Long-term trend Magnitude Optional	a) Minimum	
	b) Maximum	
2.3.9 Favourable reference range	a) Value in km²	
	b) Operator for FRR	
	c) FRR is unknown (indicated by "true")	False
	d) Method used to set FRR	
2.3.10 Reason for change Is the difference between the	a) Genuine change?	True

reported value in 2.3.1 and the previous reporting round mainly due to...	P. nathusii has clearly been under-recorded in the past and many new bat detector records have increased knowledge of the species range considerably since the 2007 report. However, defining the species range is complicated by its migratory nature and it is unclear whether the species is permanently resident through the range shown.	
	b) Improved knowledge/more accurate data?	True
	c) Use of different method (e.g. "Range tool")?	False

2.4 Population		
2.4.1 Population size estimation (using individuals or agreed exceptions where possible)	a) Unit	number of individuals
	b) Minimum	
	c) Maximum	
2.4.2 Population size estimation (using population unit other than individuals) Optional (<i>if 2.4.1 filled in</i>)	a) Unit	
	b) Minimum	
	c) Maximum	
2.4.3 Additional information on population estimates / conversion Optional	a) Definition of "locality"	
	b) Method to convert data	
	c) Problems encountered to provide population size estimation	The population is at least partly migratory, though the proportion of residents to migrants is unknown. Insufficient data are available to make a population estimate. In England two breeding roosts are known, holding up to 200 individuals each.
2.4.4 Year or period		
2.4.5 Method used	Absent data	

Population size	The population is at least partly migratory, though the proportion of residents to migrants is unknown. Insufficient data is available to make a population estimate. In England, two breeding roosts are known, holding up to 200 individuals each.	
2.4.6 Short-term trend Period		
2.4.7 Short-term trend Trend direction	unknown	
2.4.8 Short-term trend Magnitude	a) Minimum	
	b) Maximum	
	c) Confidence interval	
2.4.9 Short-term trend Method used	Absent data	
2.4.10 Long-term trend – Period		
2.4.11 Long-term trend Trend direction		
2.4.12 Long-term trend Magnitude Optional	a) Minimum	
	b) Maximum	
	c) Confidence interval	
2.4.13 Long term trend Method used		

2.4.14 Favourable reference population	a) Number of individuals/agreed exceptions/other units	
	b) Operator	
	c) FRP is unknown indicated by "true"	False
	d) Method used to set FRP	
2.4.15 Reason for change Is the difference between the value reported at 2.4.1 or 2.4.2 and the previous reporting round mainly due to:	a) Genuine change?	False
	The number of records of <i>P. nathusii</i> has increased greatly in recent years. This is at least partly due to the greater use of bat detectors in surveys and a greater awareness of the species among surveyors, but the species may also be extending its range due to climate change (Lundy et al, 2010).	
	b) Improved knowledge/more accurate data?	False
	c) Use of different method (e.g. "Range tool")?	False

2.5 Habitat for the species	
2.5.1 Area estimation	14700 Feeds in riparian habitats, broadleaved and mixed woodland and parkland. Occasionally found in farmland, but nearly always near running or still water. Known maternity roosts are in buildings. It is unknown whether the amount of habitat in the UK is sufficient to support a viable population of the species.
2.5.2 Year or period	2012-
2.5.3 Method used Habitat for the species	Estimate based on expert opinion with no or minimal sampling

2.5.4 Quality of the habitat	a) Habitat quality	Unknown
	No or insufficient reliable information available.	
	b) Assessment method	The habitat figure was derived by using the JNCC guidance note. Whereby, the species is considered to be a generalist meaning that the 10km squares occupied by the species represent the habitat available to the species.
2.5.5 Short-term trend Period	2000-2012	
2.5.6 Short-term trend Trend direction	unknown	
2.5.7 Long-term trend Period		
2.5.8 Long-term trend Trend direction		
2.5.9 Area of suitable habitat for the species	a) Value in km²	14700
	b) Absence of data indicated as '0'	
2.5.10 Reason for change Is the difference between the value reported at 2.5.1 and the previous reporting round mainly due to	a) Genuine change?	False
	b) Improved knowledge/more accurate data?	False
	c) Use of different method (e.g. "Range tool")?	False

2.6 Main pressures		
a) Pressure	b) Ranking	c) Pollution qualifier
	H = high importance M = medium importance L = low importance	
A10: Restructuring agricultural land holding	H	
G05: Other human intrusions and	H	

disturbances		
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 each 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.

2.6.1 Method used – Pressures	based only on expert judgements
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2.7 Threats		
a) Threat	b) Ranking	c) Pollution qualifier
	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	
C03: Renewable abiotic energy use	M	
D01: Roads, paths and railroads	M	
H01: Pollution to surface waters (limnic & terrestrial, marine & brackish)	L	

brackish)		
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 each 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.

2.7.1 Method used – Threats expert opinion

2.8 Complementary information

2.8.1 Justification of % thresholds for trends

2.8.2 Other relevant information

2.8.3 Trans-boundary assessment

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

3.1.1 Population size

Estimation of population size included in the SAC network

a) Unit

b) Minimum

	c) Maximum	
3.1.2 Method used		
3.1.3 Trend of population size within the network (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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