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:

S1322 - Natterer's bat (*Myotis nattereri*)

IMPORTANT NOTE – PLEASE READ

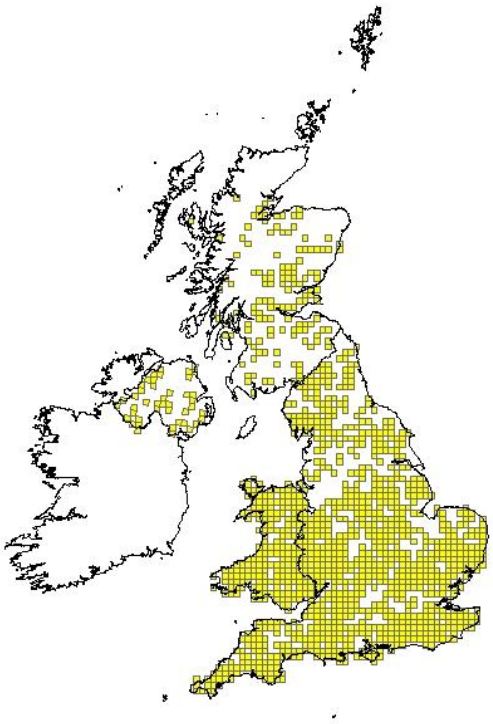
- The country-level reporting information contained in this document is a contribution to the Article 17 UK report for the habitat/species concerned.
- It has been provided by **Natural Resources Wales** and refers only to the state of the habitat/species in **Wales** - it does not constitute an assessment 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.

As of 1 April 2013, the Countryside Council for Wales, Environment Agency Wales and Forestry Commission Wales became Natural Resources Wales/Cyfoeth Naturiol Cymru

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

Field name	*Brief explanations*	
0.2 Species	**0.2.1 Species code**	**S1322**
	0.2.2 Species scientific name	***Myotis nattereri***
	0.2.3 Alternative species scientific name Optional	
	0.2.4 Common name Optional	**Natterer's bat**

1.1 Maps			
1.1.1 Distribution map		**Sensitive**	**False**
	Natterer's bat is widespread in the UK and has been recorded throughout Wales in all wooded landscapes.		



1.1.2 Method used - map	**Complete survey/Complete survey or a statistically robust estimate**
	Although there have been no structured distribution surveys, it has been reasonably well recorded by local bat groups and during monitoring surveys organised by the National Bat Monitoring Programme. The distribution map is believed to represent the actual distribution of the species well.
1.1.3 Year or period	**1980-2012**
	The date range indicated has been selected to reflect current

	range/surface area for the species for the following reasons: There are limitations in the quality of the data available. The largest dataset (Richardson 2000), has data ranging from 1980-1999 but the date of individual records within this dataset is not known. Deviating from this time period would mean having to exclude these records. The greatest level of change affecting populations of this species probably occurred prior to 1980, and so 1980 to the present is likely to reflect current distribution and range.
1.1.4 Additional distribution map	**False**
1.1.5 Range map	

2.1 Biogeographical region & marine regions	**ATL**
2.2 Published sources	**"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).** **BAT CONSERVATION TRUST, 2012. The National Bat Monitoring Programme. Annual Report 2011. Bat Conservation Trust, London. (www.bats.org.uk)** **BATTERSBY, J (Ed.). 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.** **BRIGGS, P. 2000. A Study of Barn Conversions in Hertfordshire. Commissioned by Hertfordshire BRC and Hertfordshire County Council.** **HARRIS, S., MORRIS, P., WRAY, S. and YALDEN, D. 1995. A review of British Mammals: population estimates and conservation status of British mammals other than cetaceans. JNCC, Peterborough.** **CAREY, P.D., WALLIS, S.M., EMMETT, B.E., MASKELL, L.C., MURPHY, J., NORTON, L.R., SIMPSON, I.C., SMART, S.S. 2008. Countryside Survey: UK headline messages from 2007. Centre for Ecology & Hydrology, Wallingford.** **RICHARDSON, P. 2000. Distribution atlas of bats in Britain and Ireland 1980-1999. Bat Conservation Trust, London.** **SMITH, P.G. & RIVERS, N.M. 2008. Natterer's bat Myotis nattereri. Pp 323-328. In HARRIS, S & YALDEN, D.W. Mammals of the British Isles: Handbook, 4th edition. The Mammal Society, Southampton.799pp.** **SPEAKMAN, J.R. 1991. The impact of predation by birds on bat populations in the British Isles. Mammal Review, 21, 123-142."**

2.3 Range		
2.3.1 Surface area Range		
2.3.2 Method used Surface area of Range	**Complete survey/Complete survey or a statistically robust estimate**	
	See Note 1.1.2	
2.3.3 Short-term trend Period	**2001-2012**	
	See Note 1.1.3	
2.3.4 Short term trend Trend direction	**unknown**	
	See Note 2.3.10b	
2.3.5 Short-term trend Magnitude	**a) Minimum**	
	b) Maximum	
2.3.6 Long-term trend Period	**1989-2012**	
2.3.7 Long-term trend Trend direction	**unknown**	
	See Notes 1.1.2 and 2.3.10b	
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 reported value in 2.3.1 and the previous reporting round mainly due to…	**a) Genuine change?**	**False**
	b) Improved knowledge/more accurate data?	**True**
	There has been increased survey effort due to surveys for development amd more systematic survey methodology using time expansion / frequency division bat detectors and recording of bat calls.	
	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	**12500**
	The estimates were based on expert judgement and extrapolation from limited field surveys. The 1995 population estimate for Great Britain (GB) was based on very limited information, extrapolating from known size of Pipistrellus pipistrellus colonies in relation to size of M. nattereri colonies following the methods described by Speakman (1991) and Harris et al (1995). Harris et al's (1995) reliability rating of the estimate was 4, meaning that it is "based on a very limited amount of information on the species". Although the estimates date from 1995, NBMP data indicate that there is no significant population trend for this species (1997-2012), so there is no justification for updating the estimate.	
	c) Maximum	**12500**
	See Note 2.4.1b	
2.4.2 Population size estimation (using population unit other than individuals) Optional *(if 2.4.1 filled in)*	**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	
2.4.4 Year or period	**1995-**	
	See Note 2.4.1b	
2.4.5 Method used Population size	**Estimate based on partial data with some extrapolation and/or modelling**	
	See Note 2.4.1b	
2.4.6 Short-term trend Period	**2001-2012**	
2.4.7 Short-term trend Trend direction	**stable**	
	NBMP data indicate that there is no significant population trend for this species (1997-2012)	
2.4.8 Short-term trend Magnitude	**a) Minimum**	
	b) Maximum	
	c) Confidence interval	
2.4.9 Short-term trend Method used	**Absent data**	
	See Note 2.4.7	
2.4.10 Long-term trend – Period	**1899-2012**	
2.4.11 Long-term trend Trend direction	**unknown**	
	See also Note 2.4.7	
2.4.12 Long-term trend Magnitude Optional	**a) Minimum**	
	b) Maximum	

	c) Confidence interval	
2.4.13 Long term trend Method used	**0**	
	See Note 2.4.7	
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**
	b) Improved knowledge/more accurate data?	**True**
	See Notes 2.3.10b and 2.4.7	
	c) Use of different method (e.g. "Range tool")?	**False**

2.5 Habitat for the species	
2.5.1 Area estimation	**17455**
	M. nattereri 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 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. 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 area of the filled 10km squares in the distribution map. There is thought to be a sufficient amount of habitat in the UK to support a viable population of the species. See Note 2.5.1 There is thought to be a sufficient amount of habitat in the UK 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 partial data with some extrapolation and/or modelling**	
2.5.4 Quality of the habitat	**a) Habitat quality**	**Unknown**
	See also Note 2.5.1. In order to obtain this estimate, it would be necessary to first identify all of 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. As this is a generalist species, using a mosaic of habitats, the area of distribution has been used as an estimate of habitat area. As a widespread species and common species, it has been assumed that the area of distribution can be used as a proxy for the area of suitable habitat in the absence of other information. The area of distribution was calculated from the area of the filled 10km squares in the distribution map.	
	b) Assessment method	**No or insufficient information. It has been assumed that the area of distribution can be used as a proxy for the area of suitable habitat in the absence of other information.**
	See Note 2.5.4a	
2.5.5 Short-term trend Period	**2001-2012**	
2.5.6 Short-term trend Trend direction	**unknown**	
2.5.7 Long-term trend Period	**1989-2012**	
2.5.8 Long-term trend Trend direction	**unknown**	
2.5.9 Area of suitable habitat for the species	**a) Value in km²**	**17455**
	See Note 2.5.4a	
	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?	True
	See Note 2.3.10b	
	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 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	

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 small number of licences permitting structural changes 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). Briggs found that efforts to mitigate for changes occuring during the development of natterer's roosts in barns in England often failed either because the mitigation was not carried out as specified, or because it did not take into account the species' requirements for sufficient space to fly within the roost and for dark undisturbed roosting and flying areas (Briggs 2000). M. nattereri forage in woodland, along linear features, over wetlands and parkland. 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	**mainly based on expert judgement and other data**
	Expert judgement has been used, based on studies of the ecology of the species (Smith & Rivers, 2008) and current and predicted land use changes.

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	
D01: Roads, paths and railroads	M	
H01: Pollution to surface waters (limnic & terrestrial, marine & brackish)	L	
J02: human induced changes in hydraulic conditions	L	

See Note 2.6	
2.7.1 Method used – Threats	**expert opinion**
	See Note 2.6.1

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**

