

**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:

S1330 - Whiskered bat (*Myotis mystacinus*)

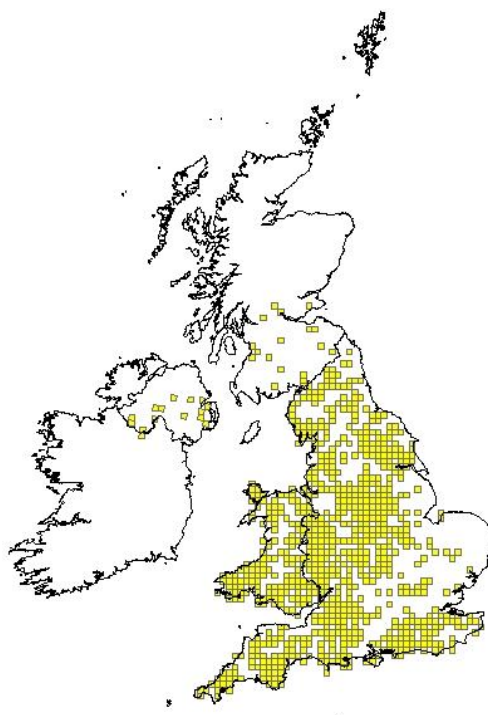
**IMPORTANT NOTE – PLEASE READ**

- 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 **Northern Ireland Environment Agency** and refers only to the state of the habitat/species in **Northern Ireland** - 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>S1330</b>
	<b>0.2.2 Species scientific name</b>	<b><i>Myotis mystacinus</i></b>
	<b>0.2.3 Alternative species scientific name</b> Optional	
	<b>0.2.4 Common name</b> Optional	<b>Whiskered bat</b>

<b>1.1 Maps</b>		
<b>1.1.1 Distribution map</b>		<b>Sensitive</b> <b>False</b>
Combined data (2007-2012) from: Bat Conservation Ireland database maintained by Bat Conservation Ireland; Northern Ireland Bat Group database maintained by NIBG; Bat database maintained by CeDAR; National Bat Monitoring Programme maintained by Bat Conservation Trust, UK		



<b>1.1.2 Method used - map</b>	<b>Estimate based on partial data with some extrapolation and/or modelling</b>
<b>1.1.3 Year or period</b>	<b>2007-2012</b>

<b>1.1.4 Additional distribution map</b>	<b>True</b>
	<p>Combined data (all available) from:</p> <p>Bat Conservation Ireland database maintained by Bat Conservation Ireland;</p> <p>Northern Ireland Bat Group database maintained by NIBG;</p> <p>Bat database maintained by CeDAR;</p> <p>National Bat Monitoring Programme maintained by Bat Conservation Trust, UK</p>
<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>"Allen, P., Forsyth, I., Hale, P. &amp; Rogers, S. (2000). Bats in Northern Ireland. Irish Naturalists' Journal. Special Zoological Supplement.</p> <p>Anon (2007) The National Monitoring Programme, Annual Report 2006. Bat Conservation Trust, UK.</p> <p>Anon (2009) The National Monitoring Programme, Annual Report 2008. Bat Conservation Trust, UK.</p> <p>Aughney, T., Carden, R. &amp; Roche, N. (2009) Irish Bat Monitoring and Recording Schemes: Annual Report 2008. Bat Conservation Ireland, <a href="http://www.batconservationireland.org">www.batconservationireland.org</a>.</p> <p>Boston, E. S. M., Buckley D., Bekaert M., Lundy M. G., Gager, Y., Scott D. D., Prodohl, P. A., Montgomery, I., Marnell, F., Teeling, E. (In Press, Acta Chiropterologica) The status of the cryptic species, <i>Myotis mystacinus</i> (Whiskered bat) and <i>Myotis brandtii</i> (Brandt's bat) in Ireland.</p> <p>Buckley, D.J., Lundy, M.G., Boston, E.S.M., Scott, D.D., Gager, Y., Prodöhl, P., Marnell, F., Montgomery, W.I., Teeling E.C. (2012). The spatial ecology of the whiskered bat (<i>Myotis mystacinus</i>) at the western extreme of its range provides evidence of regional adaptation. Mammalian Biology, In press.</p> <p>Carden R, Aughney T., Kelleher C. and Roche N. (2010). BATLAS Republic of Ireland, Report for 2008-2009. Irish Bat Monitoring Schemes. Bat Conservation Ireland. Unpublished Report.</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. Joint Nature. Conservation Committee, Peterborough.</p> <p>Harris S. &amp; Yalden D. (eds.) (2008). Mammals of the British Isles Handbook, 4th Edition. The Mammal Society, Southampton, England.</p> <p>Hopkirk, A., Aughney T., and Roche, N. (2010). BATLAS Northern Ireland Report for 2009. Irish Bat Monitoring Schemes. Bat Conservation Ireland. Unpublished Report.</p> <p>Lundy, M.G., Aughney, T., Montgomery, W.I., and Roche, N.</p>

	<p><b>(2011). Landscape conservation for Irish bats &amp; species specific roosting characteristics. Bat Conservation Ireland. Unpublished.</b></p> <p><b>Marnell, F., Kingston, N. &amp; Looney, D. (2009). Ireland Red List No. 3: Terrestrial Mammals. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government. Dublin, Ireland.</b></p> <p><b>O'Sullivan, P. 1994 Bats in Ireland. Irish Naturalists' Journal, 24: Special Zoological Supplement.</b></p> <p><b>Richardson, P. (2000). Distribution atlas of bats in Britain and Ireland, 1980-1999. The Bat Conservation Trust, London.</b></p> <p><b>Russ, J.M. &amp; Montgomery, W.I. (2002). Habitat association of bats in Northern Ireland: implications for conservation. Biological Conservation. 108: 49-58.</b></p> <p><b>Russ, J. (2008) Review of ASSI designations for bats in Northern Ireland. Northern Ireland Environment Agency, Research and Development Series 08/09."</b></p>

<b>2.3 Range</b>	
<b>2.3.1 Surface area Range</b>	<p><b>400</b></p> <p>Area has been calculated using the number of 2001-2012 10 km sq records available from dataset compiled by Bat Conservation Ireland for this bat species.</p>
<b>2.3.2 Method used Surface area of Range</b>	<p><b>Estimate based on partial data with some extrapolation and/or modelling</b></p>
<b>2.3.3 Short-term trend Period</b>	<p><b>2001-2012</b></p>
<b>2.3.4 Short term trend Trend direction</b>	<p><b>unknown</b></p>
<b>2.3.5 Short-term trend Magnitude</b>	<p><b>a) Minimum</b></p>
	<p><b>b) Maximum</b></p>
<b>2.3.6 Long-term trend Period</b>	<p><b>1989-2012</b></p>
<b>2.3.7 Long-term trend Trend direction</b>	<p><b>unknown</b></p>
<b>2.3.8 Long-term trend</b>	<p><b>a) Minimum</b></p>

<b>Magnitude</b>	Optional	
	<b>b) Maximum</b>	
<b>2.3.9 Favourable reference range</b>	<b>a) Value in km<sup>2</sup></b>	<b>968.2</b>
	<p>We have assumed the Favourable Reference Range is the entire land mass of Northern Ireland for three species (common pipistrelle, soprano pipistrelle and Leisler's bat) because their widespread occurrence leads us to believe there is nowhere that they are unlikely to be present, at least on occasion.</p> <p>For the three species which have relatively few known records and most restricted distributions (Natterer's, whiskered and Nathusius' pipistrelle) we have taken the Favourable Reference Range to be the estimated Core Area of habitat within Northern Ireland as derived from Maximum Entropy Modelling of bat records along with various landcover and other factors (see Lundy et al. 2011 for details).</p> <p>For the two remaining species (brown long-eared and Daubenton's) we estimate the Favourable Reference Range to be the full known distribution (10km squares) from 1989 to 2012 even though this is larger than modelled Core Areas described by Lundy et al. (2011), but does not extend across the entire land mass of Northern Ireland, since these species have more restricted habitat requirements than common pipistrelle and soprano pipistrelle, above.</p> <p>For whiskered bats, Core Area for this species in Northern Ireland is 7%. Total area of Northern Ireland is taken as 13,840 km<sup>2</sup>.</p>	
	<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>
	<b>b) Minimum</b>	<b>24000</b>
	<b>c) Maximum</b>	<b>24000</b>
<b>2.4.2 Population size estimation</b> (using population unit other than individuals) Optional ( <i>if 2.4.1 filled in</i> )	<b>a) Unit</b>	
	<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>This estimate is based on a number of assumptions that are as yet untested and should be treated with caution.</b>
<b>2.4.4 Year or period</b>	<b>1999-1999</b>	
<b>2.4.5 Method used Population size</b>	<b>Estimate based on partial data with some extrapolation and/or modelling</b>	
<b>2.4.6 Short-term trend Period</b>		
<b>2.4.7 Short-term trend Trend direction</b>	<b>unknown</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 indicated by "true"</b>	False
	<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>	False
	<b>b) Improved knowledge/more accurate data?</b>	False
	<b>c) Use of different method (e.g. "Range tool")?</b>	False

<b>2.5 Habitat for the species</b>		
<b>2.5.1 Area estimation</b>	969	
<b>2.5.2 Year or period</b>	2000-2009	
<b>2.5.3 Method used Habitat for the species</b>	Estimate based on partial data with some extrapolation and/or modelling	
<b>2.5.4 Quality of the habitat</b>	<b>a) Habitat quality</b>	Moderate
	<b>b) Assessment method</b>	This was calculated from Maximum Entropy modelling of bat records (2000-2009) combined with CORINE landcover, altitude, soil pH, climate and human bias layers (see Lundy et al. 2011).
<b>2.5.5 Short-term trend Period</b>	2000-2009	
<b>2.5.6 Short-term trend Trend direction</b>	unknown	
<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>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	
H01: Pollution to surface waters (limnic & terrestrial, marine & brackish)	H	
A02: modification of cultivation practices	M	
A07: use of biocides, hormones and chemicals	M	TX
B03: forest exploitation without replanting or natural regrowth	M	
B04: use of biocides, hormones and chemicals (forestry)	M	TX
D01: Roads, paths and railroads	M	
G05: Other human intrusions and disturbances	M	
M01: Changes in abiotic conditions	M	

G05 refers to pressure from deliberate or accidental exclusion from roosts (with or without licence)

**2.6.1 Method used – Pressures**

**based only on expert judgements**

<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	
B03: forest exploitation without replanting or natural regrowth	H	
A02: modification of cultivation practices	M	
A07: use of biocides, hormones and chemicals	M	TX
B04: use of biocides, hormones and chemicals (forestry)	M	TX
D01: Roads, paths and railroads	M	
G05: Other human intrusions and disturbances	M	
H01: Pollution to surface waters (limnic & terrestrial, marine & brackish)	M	ANOPTX
M01: Changes in abiotic conditions	L	

G05 refers to threat of deliberate or accidental exclusion from roosts (with or without licence)

**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

Third Report by the United Kingdom under Article 17 on the implementation of the Directive from January 2007 to December 2012

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*(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 (short-term trend)</b>	

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