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

Fourth Report by the United Kingdom under Article 17

on the implementation of the Directive
from January 2013 to December 2018

Conservation status assessment for the species:

S1330 - Whiskered bat (*Myotis mystacinus*)

UNITED KINGDOM

IMPORTANT NOTE - PLEASE READ

- The information in this document represents the UK Report on the conservation status of this species, submitted to the European Commission as part of the 2019 UK Reporting under Article 17 of the EU Habitats Directive.
- It is based on supporting information provided by the geographically-relevant Statutory Nature Conservation Bodies, which is documented separately.
- The 2019 Article 17 UK Approach document provides details on how this supporting information contributed to the UK Report and the fields that were completed for each parameter.
- The reporting fields and options used are aligned to those set out in the European Commission guidance.
- Maps showing the distribution and range of the species are included (where available).
- Explanatory notes (where provided) are included at the end. These provide additional audit trail information to that included within the UK assessments. Further underpinning explanatory notes are available in the related country-level reports.
- Some of the reporting fields have been left blank because either: (i) there was insufficient information to complete the field; (ii) completion of the field was not obligatory; and/or (iii) the field was not relevant to this species (section 12 Natura 2000 coverage for Annex II species).
- The UK-level reporting information for all habitats and species is also available in spreadsheet format.

Visit the JNCC website, https://jncc.gov.uk/article17, for further information on UK Article 17 reporting.

Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

NATIONAL LEVEL

1. General information

1.1 Member State	**UK**
1.2 Species code	**1330**
1.3 Species scientific name	**Myotis mystacinus**
1.4 Alternative species scientific name	
1.5 Common name (in national language)	Whiskered bat

2. Maps

2.1 Sensitive species	No
2.2 Year or period	1994-2018
2.3 Distribution map	Yes
2.4 Distribution map Method used	Based mainly on extrapolation from a limited amount of data
2.5 Additional maps	No

3. Information related to Annex V Species (Art. 14)

3.1 Is the species taken in the wild/exploited?	No	
3.2 Which of the measures in Art. 14 have been taken?	a) regulations regarding access to property	No
	b) temporary or local prohibition of the taking of specimens in the wild and exploitation	No
	c) regulation of the periods and/or methods of taking specimens	No
	d) application of hunting and fishing rules which take account of the conservation of such populations	No
	e) establishment of a system of licences for taking specimens or of quotas	No
	f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens	No
	g) breeding in captivity of animal species as well as artificial propagation of plant species	No
	h) other measures	No

Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

a) Unit

b) Statistics/ quantity taken	Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period					
	Season/ year 1	Season/ year 2	Season/ year 3	Season/ year 4	Season/ year 5	Season/ year 6
Min. (raw, ie. not rounded)						
Max. (raw, ie. not rounded)						
Unknown	No	No	No	No	No	No

3.4. Hunting bag or quantity taken in the wild Method used

3.5. Additional information

BIOGEOGRAPHICAL LEVEL

4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

Atlantic (ATL)

4.2 Sources of information

England

Aegerter, I.N., 2003. Maximising the biodiversity value of farm woodlands to the agri-environment. Final project report to DEFRA. Project code WD0129.
Arnold, H., 1993. Atlas of Mammals in Britain.(Institute of Terrestrial Ecology Research Publication no. 6), London.
Bat Conservation Trust, 2018. The National Bat Monitoring Programme. Annual Report 2017, Bat Conservation Trust, London.
Berge, L., 2007. Resource partitioning between the cryptic species Brandt's bat (Myotis brandtii) and the whiskered bat (M. mystacinus) in the UK, University of Bristol.
Brown, P.A., 2016. The Cryptic Group of Small Myotis Bats (M. Mystacinus, M. Brandtii and M. Alcathoe) and Habitat Use by Woodland Bats Species in Britain, University of Bristol.
Buckley, D.J., Lundy, M.G., Boston, E.S., Scott, D.D., Gager, Y., Prodohl, P., Marnell, F., Montgomery, W.I., Teeling, E.C., 2013. The spatial ecology of the whiskered bat (Myotis mystacinus) at the western extreme of its range provides evidence of regional adaptation. Mammalian Biology-Zeitschrift fur Saugetierkunde 78, 198-204.
Dietz, C., Kiefer, A. 2016. Bats of Britain and Europe. Bloomsbury, United Kingdom.
Glover, A.M., Altringham, J.D., 2008. Cave selection and use by swarming bat species. Biological Conservation 141, 1493-1504.
Harris, S., Morris, P., Wray, S., Yalden, D. 1995. A review of British mammals: population estimates and conservation status of British Mammals other than cetaceans. JNCC, Peterborough.

Jan, C.M., Frith, K., Glover, A.M., Butlin, R.K., Scott, C.D., Greenaway, F., Ruedi, M., Frantz, A.C., Dawson, D.A., Altringham, J.D. 2010. Myotis alcathoe confirmed in the UK from mitochondrial and microsatellite DNA. Acta Chiropterologica 12, 471-483.
JNCC, 2013. Third Report by the United Kingdom under Article 17 on the implementation of the Habitats Directive from January 2007 to December 2012. Species S1320 - Brandt's bat (Myotis brandtii), Peterborough: JNCC, Available from: www.jncc.gov.uk/article17
Jones, G., 1991. Hibernal ecology of whiskered bats (Myotis mystacinus) and Brandt's bats (Myotis brandti) sharing the same roost site. Myotis 29, 121-128.
Mathews, F., Kubasiewicz, L.M., Gurnell, J., Harrower, C., McDonald, R.A., Shore, R.F. 2018. A review of the population and conservation status of British Mammals. A report by The Mammal Society under contract to Natural England, Natural Resources Wales and Scottish Natural Heritage.
Mitchell-Jones, T. 2010. Bats in houses-the conservation challenge. Species Management: Challenges and Solutions for the 21st Century. (Eds JJ Baxter and CA Galbraith.) pp, 365-378.
Norberg, U.M., Rayner, J.M. 1987. Ecological morphology and flight in bats (Mammalia; Chiroptera): wing adaptations, flight performance, foraging strategy and echolocation. Phil. Trans. R. Soc. Lond. B. 316, 335-427.
Parsons, K.N., Jones, G., Davidson-Watts, I., Greenaway, F. 2003. Swarming of bats at underground sites in Britain-implications for conservation. Biological Conservation. 111, 63-70.
Richardson, P. W. 2000. Distribution Atlas of Bats in Britain and Ireland, 1980-1999, Bat Conservation Trust.
Ruedi, M., and Mayer, F. 2001. Molecular systematics of bats of the genus Myotis (Vespertilionidae) suggests deterministic ecomorphological convergences. Molecular phylogenetics and evolution. 21, 436-448.
Schober, W., Grimmberger, E., 1989. Bats of Britain and Europe. Hamlyn, London.
Speakman, J., 1991. The impact of predation by birds on bat populations in the British Isles. Mammal Review 21, 123-142.
Scotland
Bat Conservation Trust, 2018. The National Bat Monitoring Programme. Annual Report 2017, Bat Conservation Trust, London.
Berge, L., 2007. Resource partitioning between the cryptic species Brandt's bat (Myotis brandtii) and the whiskered bat (M. mystacinus) in the UK, University of Bristol.
Brown, P.A., 2016. The Cryptic Group of Small Myotis Bats (M. Mystacinus, M. Brandtii and M. Alcathoe) and Habitat Use by Woodland Bats Species in Britain, University of Bristol.
Buckley, D.J., Lundy, M.G., Boston, E.S., Scott, D.D., Gager, Y., Prodohl, P., Marnell, F., Montgomery, W.I., Teeling, E.C., 2013. The spatial ecology of the whiskered bat (Myotis mystacinus) at the western extreme of its range provides evidence of regional adaptation. Mammalian Biology-Zeitschrift fur Saugetierkunde 78, 198-204.
Dietz, C., Kiefer, A. 2016. Bats of Britain and Europe. Bloomsbury, United Kingdom.
Glover, A.M., Altringham, J.D., 2008. Cave selection and use by swarming bat species. Biological Conservation 141, 1493-1504.
JNCC, 2013. Third Report by the United Kingdom under Article 17 on the implementation of the Habitats Directive from January 2007 to December 2012. Species S1330 - Whiskered bat (Myotis mystacinus), Peterborough: JNCC, Available from: www.jncc.gov.uk/article17

Jones, G., 1991. Hibernal ecology of whiskered bats (Myotis mystacinus) and Brandt's bats (Myotis brandti) sharing the same roost site. Myotis 29, 121-128.
Mathews, F., Kubasiewicz, L.M., Gurnell, J., Harrower, C., McDonald, R.A., Shore, R.F. 2018. A review of the population and conservation status of British Mammals. A report by The Mammal Society under contract to Natural England, Natural Resources Wales and Scottish Natural Heritage.
Newson, S.E., Evans, H.E., Gillings, S., Jarrett, D. & Wilson, M.W. 2017. A survey of high risk bat species across southern Scotland. Scottish Natural Heritage Commissioned Report No. 1008.
Norberg, U.M., Rayner, J.M. 1987. Ecological morphology and flight in bats (Mammalia; Chiroptera): wing adaptations, flight performance, foraging strategy and echolocation. Phil. Trans. R. Soc. Lond. B. 316, 335-427.
Parsons, K.N., Jones, G., Davidson-Watts, I., Greenaway, F. 2003. Swarming of bats at underground sites in Britain-implications for conservation. Biological Conservation. 111, 63-70.
Ruedi, M., and Mayer, F. 2001. Molecular systematics of bats of the genus Myotis (Vespertilionidae) suggests deterministic ecomorphological convergences. Molecular phylogenetics and evolution. 21, 436-448.
Schober, W., Grimmberger, E., 1989. Bats of Britain and Europe. Hamlyn, London.
Wales
Aegerter IN. 2003. Maximising the biodiversity value of farm woodlands to the agri-environment. Final project report to DEFRA. Project code WD0129.
Arnold H. 1993. Atlas of Mammals in Britain. Institute of Terrestrial Ecology Research Publication no. 6, London.
Bat Conservation Trust. 2018. The State of the UK's Bats 2017. Bat Conservation Trust, London. Available at
http://www.bats.org.uk/pages/results_and_reports.html
Bat Conservation Trust. 2018a. The National Bat Monitoring Programme. Annual Report 2017. Bat Conservation Trust, London. Available at
www.bats.org.uk/pages/nbmp_annual_report.html
Battersby J. (Ed.). 2005. UK Mammals: Species Status and Population Trends. JNCC/Tracking Mammals Partnership.
Berge L. 2007. Resource partitioning between the cryptic species Brandt's bat (Myotis brandtii) and the whiskered bat (M. mystacinus) in the UK. PhD, University of Bristol.
Berge L, Jones G. 2008. Whiskered bat Myotis mystacinus. Pp 310-315. In: Harris, S. & Yalden, D.W. Mammals of the British Isles: Handbook, 4th edition. The Mammal Society, Southampton.799pp.
Boye P, Dietz M. 2005. Research Report No 661: Development of good practice guidelines for woodland management for bats. English Nature, Peterborough.
Brown PA. 2016. The Cryptic Group of Small Myotis Bats (M. Mystacinus, M. Brandtii and M. Alcathoe) and Habitat Use by Woodland Bats Species in Britain, University of Bristol.
Buckley DJ, Lundy MG, Boston ES, Scott DD, Gager Y, Prodohl P, Marnell F, Montgomery WI, Teeling EC. 2013. The spatial ecology of the whiskered bat (Myotis mystacinus) at the western extreme of its range provides evidence of regional adaptation. Mammalian Biology-Zeitschrift fur Saugetierkunde 78, 198-204.
Dietz C, Kiefer A. 2016. Bats of Britain and Europe. Bloomsbury, United Kingdom.
Glover AM, Altringham JD. 2008. Cave selection and use by swarming bat species. Biological Conservation 141(6):1493-1504.
Harris S, Morris P, Wray S, Yalden D. 1995. A review of British Mammals: population estimates and conservation status of British mammals other than

cetaceans. JNCC, Peterborough.
Holderied MW, Jones G, von Helversen O. 2006. Flight and echolocation behaviour of whiskered bats commuting along a hedgerow: range-dependent sonar signal design, Doppler tolerance and evidence for 'acoustic focussing'. J Exp Biol, 209(10), 1816-1826.
Jan CM, Frith K, Glover AM, Butlin RK, Scott CD, Greenaway F, Ruedi M, Frantz AC, Dawson DA, Altringham JD. 2010. Myotis alcathoe confirmed in the UK from mitochondrial and microsatellite DNA. Acta Chiropterologica 12, 471-483.
Johansson M, De Jong J. 1996. Bat species diversity in a lake archipelago in central Sweden. Biodiversity & Conservation, 5, 1221-1229.
Jones G. 1991. Hibernal ecology of whiskered bats (Myotis mystacinus) and Brandt's bats (Myotis brandti) sharing the same roost site. Myotis, 29, 121-128.
Jones KE, Altringham JD, Deaton R. 1996. Distribution and population densities of seven species of bat in northern England Journal of Zoology, 240, 788-798
Mathews F, Kubasiewicz LM, Gurnell J, Harrower C, McDonald RA, Shore RF. 2018. A review of the population and conservation status of British Mammals. A report by The Mammal Society under contract to Natural England, Natural Resources Wales and Scottish Natural Heritage.
Mitchell-Jones T . 2010. Bats in houses-the conservation challenge. Species Management: Challenges and Solutions for the 21st Century. (Eds JJ Baxter and CA Galbraith.) pp, 365-378.
Natural Resources Wales. 2013. 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 mysticinus).
Norberg UM, Rayner JMV. 1987. Ecological morphology and flight in bats (Mammalia: Chiroptera): Wing adaptations, flight performance, foraging strategy and echolocation. Philosophical Transactions of the Royal Society, London B, 316, 335-427.
Parsons KN, Jones G, Davidson-Watts I, Greenaway F. 2003. Swarming of bats at underground sites in Britain- implications for conservation, Biological Conservation 111(1): 63-70.
Richardson P. 2000. Distribution atlas of bats in Britain and Ireland 1980-1999. Bat Conservation Trust, London.
Schober W, Grimmberger E. 1989. Bats of Britain and Europe. Hamlyn, London
Speakman JR. 1991. The impact of predation by birds on bat populations in the British Isles. Mammal Review, 21, 123-142.
Von Helversen O, Heller KG, Nemeth A, Volleth M, Gombkoto P. 2001. Cryptic mammalian species: a new species of whiskered bat (Myotis alcathoe n. sp.) in Europe. Naturwissenshaft 88: 5, 217 - 223
N.Ireland
Lundy, M. & Montgomery, I. (2010) Summer habitat associations of bats between riparian landscapes and within riparian areas, European Journal of Wildlife Research, 56(3): 385-394.
Lundy, M.G., Aughney, T., Montgomery, W.I., and Roche, N. (2011). Landscape conservation for Irish bats & species: specific roosting characteristics. Bat Conservation Ireland. Unpublished.
Russ, J.M. & Montgomery, W.I. (2002). Habitat association of bats in Northern Ireland: implications for conservation. Biological Conservation. 108: 49-58.
Lundy, M.G., Buckley, D.J., Boston, E.S.M., Scott, D.D., Prodohl, P.A., Marnell, F.,Teeling, E.C., Montgomery, W.I., (2012).
Behavioural context of multi-scale species distribution models assessed by radio-tracking. Basic Appl. Ecol., http://dx.doi.org/10.1016/j.baae.2011.1012.1003.

Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

Hutson, A.M., Mickleburgh, S.P., and Racey, P.A. (comp.). (2001). Microchiropteran bats: global status survey and conservation action plan. IUCN/SSC Chiroptera Specialist Group. IUCN, Gland, Switzerland and Cambridge, UK. x + 258 pp.
Hutson, A.M., Mickleburgh, S.P. & Racey, P.A. (comp.). (2001) Global Status Survey and Conservation Action Plan Microchiropteran Bats, The Nature Conservation Bureau Ltd, ISBN: 2-8317-0595-9, http://www.uni-giessen.de/faculties/f08/departments/tsz/mammalian-ecology-group/downloads/iucn-microchiroptera
Russ, J.M. (1999). The Microchiroptera of Northern Ireland: community composition, habitat associations and ultrasound. Unpublished Ph.D thesis. The Queen's University of Belfast.
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 Chiropterlogica) The status of the cryptic species, Myotis mystacinus (Whiskered bat) and Myotis brandtii (Brandt's bat) in Ireland.
Buckley, D.J., Lundy, M.G., Boston, E.S.M., Scott, D.D., Gager, Y., Prodohl, P., Marnell, F., Montgomery, W.I., Teeling E.C. (2012). The spatial ecology of the whiskered bat (Myotis mystacinus) at the western extreme of its range provides evidence of regional adaptation. Mammalian Biology, In press.
Boston, E. (2016) A report on Article 17 reporting for Northern Ireland on the eight bat species listed in annex IV of the UK Habitats Directive, unpublished report compiled for CEDaR
Mathews, F., Richardson, S., Lintott, P., and Hosken, D. 2016. Understanding the Risk to European Protected Species (bats) at Onshore Wind Turbine Sites to inform Risk Management. University of Exeter. Report to DEFRA.

5. Range

5.1 Surface area (km²)	171942	
5.2 Short-term trend Period	2007-2018	
5.3 Short-term trend Direction	Stable (0)	
5.4 Short-term trend Magnitude	a) Minimum	b) Maximum
5.5 Short-term trend Method used	Based mainly on extrapolation from a limited amount of data	
5.6 Long-term trend Period		
5.7 Long-term trend Direction		
5.8 Long-term trend Magnitude	a) Minimum	b) Maximum
5.9 Long-term trend Method used		
5.10 Favourable reference range	a) Area (km²)	155969
	b) Operator	
	c) Unknown	
	d) Method	The FRR value is the same as in 2013 and is considered to be large enough to support a viable population and no lower than the range estimate when the Habitats Directive came into force in the UK. For further information see the 2019 Article 17 UK Approach document.
5.11 Change and reason for change in surface area of range	Use of different method	
	The change is mainly due to:	Use of different method

Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

5.12 Additional information	The range surface area for this species has been calculated using the UK 2013 approach and not the new approach outlined in Mathews et al. (2018). The trend in range is based on comparing current range with range in 2013 and expert opinion. Apparent change in the surface area of the range is due to a different method of data collection and is not genuine change. The difficulty of separating this species from Brandt's bat (Myotis brandtii) in terms of physical appearance and echolocation calls limits the availability of data. The estimated range is therefore likely to be less reliable for this species than for other UK bat species. There is no evidence to suggest that this species range has declined for the specified time period. The current range is above the FRR value and is considered to be large enough to support a viable population.

6. Population

6.1 Year or period	1994-2018	
6.2 Population size (in reporting unit)	a) Unit	number of map 1x1 km grid cells (grids1x1)
	b) Minimum	
	c) Maximum	
	d) Best single value	2834
6.3 Type of estimate	Minimum	
6.4 Additional population size (using population unit other than reporting unit)	a) Unit	
	b) Minimum	
	c) Maximum	
	d) Best single value	
6.5 Type of estimate		
6.6 Population size Method used	Based mainly on expert opinion with very limited data	
6.7 Short-term trend Period	1999-2018	
6.8 Short-term trend Direction	Stable (0)	
6.9 Short-term trend Magnitude	a) Minimum	
	b) Maximum	
	c) Confidence interval	
6.10 Short-term trend Method used	Complete survey or a statistically robust estimate	
6.11 Long-term trend Period		
6.12 Long-term trend Direction		
6.13 Long-term trend Magnitude	a) Minimum	
	b) Maximum	
	c) Confidence interval	
6.14 Long-term trend Method used		

Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

6.15 Favourable reference population (using the unit in 6.2 or 6.4)	a) Population size	
	b) Operator	
	c) Unknown	x
	d) Method	The FRP for this species is unknown because there is insufficient information to set an FRP value. For further information see the 2019 Article 17 UK Approach document.
6.16 Change and reason for change in population size	Improved knowledge/more accurate data Use of different method No information on nature of change	
	The change is mainly due to:	Use of different method
6.17 Additional information	The 1km square count has been calculated from the UK count of 1km squares where the species has been recorded. This is a minimum count because it only includes number of recorded occupied 1km squares. Accurate predictions of population size cannot be made as very few roosts are known, and it is highly likely that there is considerable misidentification of the species, which is very similar to Brandt's bat (Myotis brandtii) in physical appearance and echolocation calls. Trend information suggests the species populations are currently stable. However, lack of a population estimate and inability to set an FRP mean that the population status of this species is currently unknown.	

7. Habitat for the species

7.1 Sufficiency of area and quality of occupied habitat	a) Are area and quality of occupied habitat sufficient (for long-term survival)?	Yes
	b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?	
7.2 Sufficiency of area and quality of occupied habitat Method used	Based mainly on expert opinion with very limited data	
7.3 Short-term trend Period	1995-2018	
7.4 Short-term trend Direction	Stable (0)	
7.5 Short-term trend Method used	Based mainly on expert opinion with very limited data	
7.6 Long-term trend Period		
7.7 Long-term trend Direction		
7.8 Long-term trend Method used		
7.9 Additional information	There is some detailed information on the habitat requirements/ limitations of this species. As this is a generalist species, using a mosaic of habitats across a large area this parameter is thought to be stable. It is assumed that there is sufficient habitat for the species, which does not appear to have declined in range or population.	

8. Main pressures and threats

8.1 Characterisation of pressures/threats

Pressure	Ranking

parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05)	
Abandonment of grassland management (e.g. cessation of grazing or mowing) (A06)	M
Intensive grazing or overgrazing by livestock (A09)	H
Logging without replanting or natural regrowth (B05)	H
Removal of old trees (excluding dead or dying trees) (B08)	M
Clear-cutting, removal of all trees (B09)	H
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	H
Conversion from other land uses to housing, settlement or recreational areas (excluding drainage and modification of coastline, estuary and coastal conditions) (F01)	M
Construction or modification (e.g. of housing and settlements) in existing urban or recreational areas (F02)	H
Sports, tourism and leisure activities (F07)	M

Threat	Ranking
Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05)	M
Abandonment of grassland management (e.g. cessation of grazing or mowing) (A06)	M
Intensive grazing or overgrazing by livestock (A09)	H
Logging without replanting or natural regrowth (B05)	M
Removal of old trees (excluding dead or dying trees) (B08)	H
Clear-cutting, removal of all trees (B09)	M
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	H
Conversion from other land uses to housing, settlement or recreational areas (excluding drainage and modification of coastline, estuary and coastal conditions) (F01)	H
Construction or modification (e.g. of housing and settlements) in existing urban or recreational areas (F02)	H
Sports, tourism and leisure activities (F07)	M

8.2 Sources of information

8.3 Additional information

9. Conservation measures

9.1 Status of measures

a) Are measures needed? Yes

b) Indicate the status of measures Measures identified and taken

9.2 Main purpose of the measures taken

Maintain the current range, population and/or habitat for the species

Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

9.3 Location of the measures taken	Both inside and outside Natura 2000
9.4 Response to the measures	Medium-term results (within the next two reporting periods, 2019-2030)

9.5 List of main conservation measures

Restore small landscape features on agricultural land (CA02)
Maintain existing extensive agricultural practices and agricultural landscape features (CA03)
Adapt/manage reforestation and forest regeneration (CB04)
Adapt/change forest management and exploitation practices (CB05)
Reduce impact of transport operation and infrastructure (CE01)
Manage conversion of land for construction and development of infrastructure (CF01)
Reduce impact of outdoor sports, leisure and recreational activities (CF03)
Other measures related to residential, commercial, industrial and recreational infrastructures, operations and activities (CF12)

9.6 Additional information

10. Future prospects

10.1 Future prospects of parameters	a) Range	Good
	b) Population	Unknown
	c) Habitat of the species	Good
10.2 Additional information	Future trend in Range is Overall stable; Future trend in Population is Overall stable; and Future trend in Habitat for the species is Overall stable. For further information on how future trends inform the Future Prospects conclusion see the 2019 Article 17 UK Approach document.	

11. Conclusions

11.1. Range	Favourable (FV)
11.2. Population	Unknown (XX)
11.3. Habitat for the species	Favourable (FV)
11.4. Future prospects	Favourable (FV)
11.5 Overall assessment of Conservation Status	Favourable (FV)
11.6 Overall trend in Conservation Status	Stable (=)
11.7 Change and reasons for change in conservation status and conservation status trend	a) Overall assessment of conservation status No change The change is mainly due to: b) Overall trend in conservation status No change The change is mainly due to:
11.8 Additional information	Conclusion on Range reached because: (i) the short-term trend direction in

Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

Range surface area is stable and (ii) the current Range surface area is not less than the Favourable Reference Range.

Conclusion on Population reached because: (i) the short-term trend direction in Population size is stable; and (ii) the current Population size is unknown.

Conclusion on Habitat for the species reached because: (i) the area of occupied habitat is sufficiently large and (ii) the habitat quality is suitable for the long-term survival of the species; and (iii) the short-term trend in area and quality of habitat is stable.

Conclusion on Future prospects reached because: (i) the Future prospects for Range are good; (ii) the Future prospects for Population are unknown; and (iii) the Future prospects for Habitat for the species are good.

Overall assessment of Conservation Status is Favourable because three of the conclusions are Favourable and one is Unknown.

Overall trend in Conservation Status is based on the combination of the short-term trends for Range – stable Population – stable, and Habitat for the species – stable.

Overall assessment of Conservation Status has not changed since 2013.

Overall trend in conservation status was not reported for this species in 2013. However, from the information available the overall trend would have been stable in 2013 and so there has been no change since the last reporting round.

12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)	a) Unit b) Minimum c) Maximum d) Best single value
12.2 Type of estimate	
12.3 Population size inside the network Method used	
12.4 Short-term trend of population size within the network Direction	
12.5 Short-term trend of population size within the network Method used	
12.6 Additional information	

13. Complementary information

13.1 Justification of % thresholds for trends

Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

13.2 Trans-boundary assessment

13.3 Other relevant Information

Distribution Map

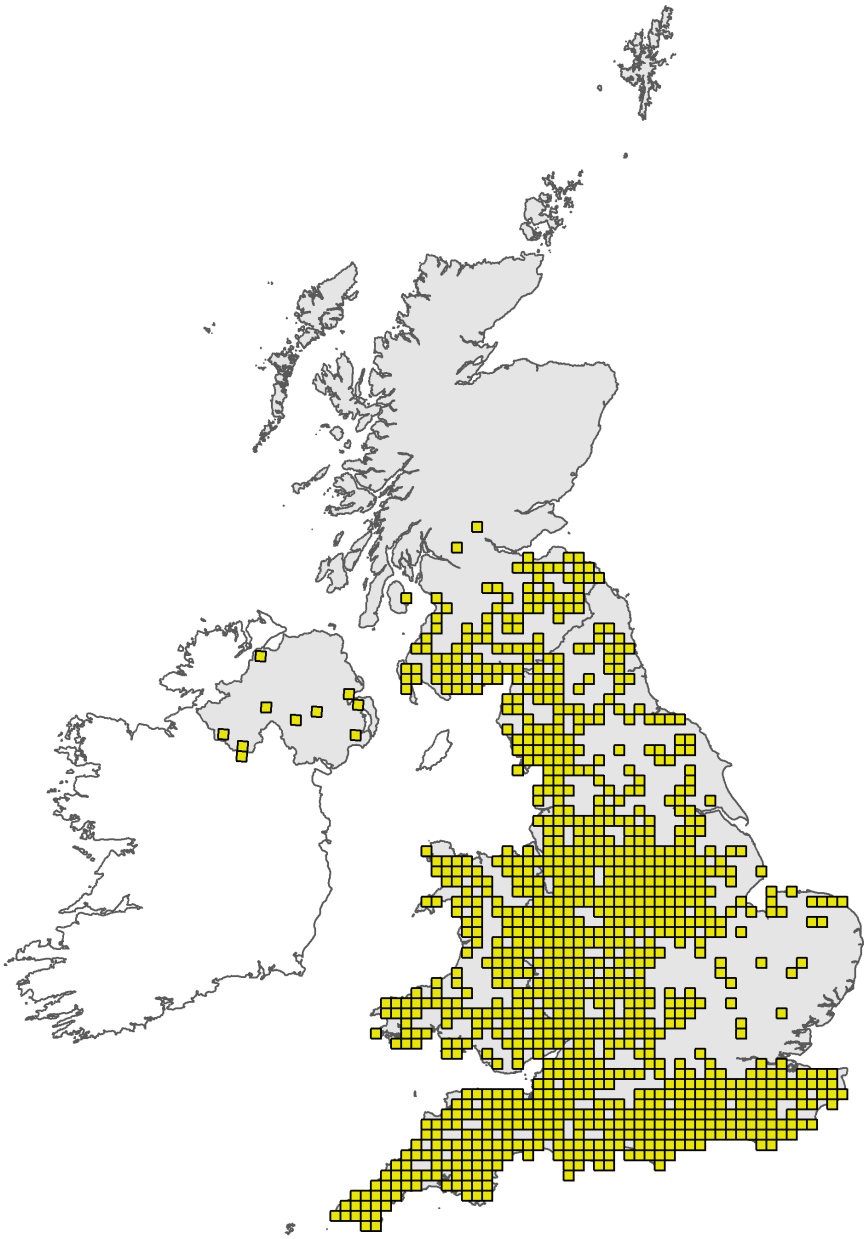

Figure 1: UK distribution map for S1330 - Whiskered bat (*Myotis mystacinus*). Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

The 10km grid square distribution map is based on available species records within the current reporting period. For further details see the 2019 Article 17 UK Approach document.

Range Map

Figure 2: UK range map for S1330 - Whiskered bat (*Myotis mystacinus*). Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

The range map has been produced by applying a bespoke range mapping tool for Article 17 reporting (produced by JNCC) to the 10km grid square distribution map presented in Figure 1. The alpha value for this species was 45km. For further details see the 2019 Article 17 UK Approach document.