

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

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

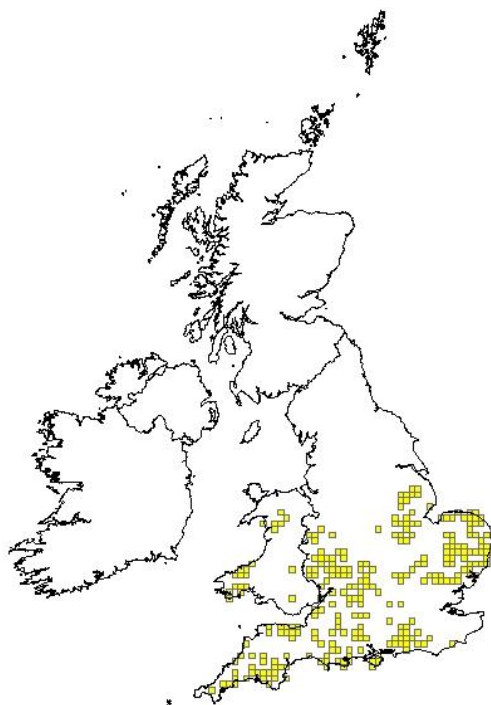
Species:

S1308 - Barbastelle (*Barbastella barbastellus*)

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	S1308
	0.2.2 Species scientific name	<i>Barbastella barbastellus</i>
	0.2.3 Alternative species scientific name Optional	
	0.2.4 Common name Optional	

1.1 Maps			
1.1.1 Distribution map	True	Sensitive	False
	The distribution map is based on species records which are considered to be representative of the range within the current reporting period. For further details see the 2013 Article 17 UK Approach document.		



1.1.2 Method used - map	Estimate based on partial data with some extrapolation and/or modelling
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information
1.1.3 Year or period	2000-2012
	The distribution map is based on species records which are considered to be representative of the range within the current reporting period. For further details see the 2013 Article 17 UK Approach document.

1.1.4 Additional distribution map Optional	False
1.1.5 Range map	True The range map was produced by applying the UK range mapping tool to the distribution map presented in 1.1.4. The alpha value for this species was 45km. For further details see the 2013 Article 17 UK Approach document.



2.1 Biogeographical region & marine regions	ATL
2.2 Published sources	<p>BAT CONSERVATION TRUST, 2012. The National Bat Monitoring Programme. Annual Report 2011. Bat Conservation Trust, London. (www.bats.org.uk)</p> <p>BATTERSBY, J (Ed.). 2005. UK Mammals: Species Status and Population Trends. JNCC/Tracking Mammals Partnership.</p> <p>BILLINGTON, 2003. Radio tracking study of Barbastelle bats in Pengelli Forest National Nature Reserve. CCW Contract Science Report No. 590. [Confidential]. CCW, Bangor.</p> <p>BOYE, P. & DIETZ, M. 2005. Research Report No 661: Development of good practice guidelines for woodland management for bats. English Nature, Peterborough.</p> <p>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.</p> <p>GREENAWAY, F. 2008. Barbastelle <i>Barbastella barbastellus</i>. Pages 362-364 In HARRIS, S & YALDEN, D.W. Mammals of the British Isles: Handbook, 4th edition. The Mammal Society, Southampton.799pp.</p> <p>HARRIS, S., MORRIS, P., WRAY, S. & YALDEN, D. 1995. A</p>

review of British Mammals: population estimates and conservation status of British mammals other than cetaceans. JNCC, Peterborough.

MACDONALD, D.W. & BURNHAM, D. (2011). The State of Britain's Mammals 2011. Peoples Trust for Endangered Species, London.

MACDONALD, D.W. & TATTERSALL, F. (2001) Britain's Mammals: The Challenge for Conservation. People's Trust for Endangered Species, London.

MCLEOD, C.R., YEO, M., BROWN, A.E., BURN, A.J., HOPKINS, J.J. & WAY, S.F., eds. 2002. The Habitats Directive: Selection of Special Areas of Conservation in the UK, 2nd edn. Joint Nature Conservation Committee, Peterborough

RICHARDSON, P. (2000) Distribution atlas of bats in Britain and Ireland 1980-1999. Bat Conservation Trust, London.

ZEALE, M.R.K. 2011. Conservation biology of the barbastelle (*Barbastella barbastellus*): applications of spatial modelling, ecology and molecular analysis of diet. PhD Thesis, University of Bristol."

UK distribution map data sources

Additional data: CCW HQ & Licence reports Survey_DMV Bat records from Matt Zeale

Additional data: CCW HQ & Licence reports Survey_DMV Bat roosts database, Pembrokeshire

Additional data: CCW HQ & Licence reports Survey_DMV CCW-HQ-Terr- Important Welsh Bat Roosts Database (BATSITES-WALES)

Additional data: CCW HQ & Licence reports Survey_DMV Margaret Clarke REF M. Clarke (2010) Barbastelles (and Bechstein's) in West Wales, 2009

Additional data: CCW HQ & Licence reports Survey_DMV VWT Woodland Survey

Batsites inventory for Britain

CCW HQ & Licence reports Survey_DMV Reported to CCW Distribution Atlas of Bats in Britain and Ireland (1980-1999): data spreadsheet

Mammals Database

NBN Bat Conservation Trust

NBN Gateway Biological Records In Essex GA001035 Extracted 21/08/2012 Bat records for Essex from 1971 - present.

NBN Gateway Bristol Regional Environmental Records Centre GA001100 Extracted 21/08/2012 BRERC JNCC May 2012

NBN Gateway Dorset Environmental Records Centre GA001010 Extracted 21/08/2012 Dorset Important Species 2012 for Natural England use only

NBN Gateway Herefordshire Biological Records Centre GA001084 Extracted 21/08/2012 Herefordshire Biological Records Centre Species Records

NBN Gateway Lincolnshire Biodiversity Partnership GA000921 Extracted 21/08/2012 Lincolnshire Bats (sightings)

NBN Gateway Lincolnshire Biodiversity Partnership GA000922 Extracted 21/08/2012 Lincolnshire Bats (roosts)

NBN Gateway National Trust GA001105 Extracted 21/08/2012 Extract of National Trust species database covering Article 17

	<p>species</p> <p>NBN Gateway Natural England GA000161 Extracted 21/08/2012 Batsites inventory for England (1949-2011)</p> <p>NBN Gateway Shropshire Ecological Data Network GA000693 Extracted 21/08/2012 Shropshire Ecological Data Network Database</p> <p>NBN Gateway Suffolk Biological Records Centre GA000623 Extracted 21/08/2012 Suffolk Biological Records Centre (SBRC) dataset</p> <p>NBN Gateway Sussex Biodiversity Record Centre GA001076 Extracted 21/08/2012 SxBRC Full dataset for Environment Agency and Natural England use only.</p> <p>NBN Gateway The Bat Conservation Trust GA000437 Extracted 21/08/2012 The BCT/MTUK Bats & Roadside Mammals Survey</p> <p>NBN Gateway The Bat Conservation Trust GA000570 Extracted 21/08/2012 Bechstein's Bat Survey Project</p> <p>NBN Gateway The Bat Conservation Trust GA000612 Extracted 21/08/2012 Hibernation Survey</p> <p>NBN Gateway The Bat Conservation Trust GA000956 Extracted 21/08/2012 Woodland Survey</p> <p>NBN Gateway Wiltshire and Swindon Biological Records Centre GA000584 Extracted 21/08/2012 Wiltshire & Swindon Site-based Survey Records</p> <p>NBN Gateway Wiltshire and Swindon Biological Records Centre GA000630 Extracted 21/08/2012 Wiltshire & Swindon Incidental Species Records</p> <p>NBN Gateway Wiltshire and Swindon Biological Records Centre GA001098 Extracted 21/08/2012 Wiltshire and Swindon Habitats Directive (Article 17) Species - Reporting Group Use Only</p> <p>NBN Gateway Worcestershire Biological Records Centre GA000712 Extracted 21/08/2012 WBRC Species data for Worcestershire collated by date.</p> <p>NBN Gateway Worcestershire Biological Records Centre GA000777 Extracted 21/08/2012 WBRC Species data for Worcestershire collated by species group</p> <p>T. Mitchell Jones, NE (pers. comm)</p> <p>The Vincent Wildlife Trust Bat Box data. Sent to JNCC (LH) via Jean Matthews (CCW) 23/08/2012</p> <p>Wales LRC Priority & Protected Species layer exported from Cofnod Database on 27/04/2012</p> <p>UK Distribution Map data sources</p> <p>Additional data: CCW HQ & Licence reports Survey_DMV Bat records from Matt Zeale</p> <p>Additional data: CCW HQ & Licence reports Survey_DMV Bat roosts database, Pembrokeshire</p> <p>Additional data: CCW HQ & Licence reports Survey_DMV CCW-HQ-Terr-Important Welsh Bat Roosts Database (BATSITES-WALES)</p> <p>Additional data: CCW HQ & Licence reports Survey_DMV Margaret Clarke REF M. Clarke (2010) Barbastelles (and Bechstein's) in West Wales, 2009</p> <p>Additional data: CCW HQ & Licence reports Survey_DMV VWT Woodland</p>
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	<p>Survey</p> <p>Batsites inventory for Britain</p> <p>CCW HQ & Licence reports Survey_DMV Reported to CCW</p> <p>Distribution Atlas of Bats in Britain and Ireland (1980-1999): data spreadsheet</p> <p>Mammals Database</p> <p>NBN Bat Conservation Trust</p> <p>NBN Gateway Biological Records In Essex GA001035 Extracted 21/08/2012 Bat records for Essex from 1971 - present.</p> <p>NBN Gateway Bristol Regional Environmental Records Centre GA001100 Extracted 21/08/2012 BRERC JNCC May 2012</p> <p>NBN Gateway Dorset Environmental Records Centre GA001010 Extracted 21/08/2012 Dorset Important Species 2012 for Natural England use only</p> <p>NBN Gateway Herefordshire Biological Records Centre GA001084 Extracted 21/08/2012 Herefordshire Biological Records Centre Species Records</p> <p>NBN Gateway Lincolnshire Biodiversity Partnership GA000921 Extracted 21/08/2012 Lincolnshire Bats (sightings)</p> <p>NBN Gateway Lincolnshire Biodiversity Partnership GA000922 Extracted 21/08/2012 Lincolnshire Bats (roosts)</p> <p>NBN Gateway National Trust GA001105 Extracted 21/08/2012 Extract of National Trust species database covering Article 17 species</p> <p>NBN Gateway Natural England GA000161 Extracted 21/08/2012 Batsites inventory for England (1949-2011)</p> <p>NBN Gateway Shropshire Ecological Data Network GA000693 Extracted 21/08/2012 Shropshire Ecological Data Network Database</p> <p>NBN Gateway Suffolk Biological Records Centre GA000623 Extracted 21/08/2012 Suffolk Biological Records Centre (SBRC) dataset</p> <p>NBN Gateway Sussex Biodiversity Record Centre GA001076 Extracted 21/08/2012 SxBRC Full dataset for Environment Agency and Natural England use only.</p> <p>NBN Gateway The Bat Conservation Trust GA000437 Extracted 21/08/2012 The BCT/MTUK Bats & Roadside Mammals Survey</p> <p>NBN Gateway The Bat Conservation Trust GA000570 Extracted 21/08/2012 Bechstein's Bat Survey Project</p> <p>NBN Gateway The Bat Conservation Trust GA000612 Extracted 21/08/2012 Hibernation Survey</p> <p>NBN Gateway The Bat Conservation Trust GA000956 Extracted 21/08/2012 Woodland Survey</p> <p>NBN Gateway Wiltshire and Swindon Biological Records Centre GA000584 Extracted 21/08/2012 Wiltshire & Swindon Site-based Survey Records</p> <p>NBN Gateway Wiltshire and Swindon Biological Records Centre GA000630 Extracted 21/08/2012 Wiltshire & Swindon Incidental Species Records</p> <p>NBN Gateway Wiltshire and Swindon Biological Records Centre GA001098 Extracted 21/08/2012 Wiltshire and Swindon Habitats Directive (Article 17) Species - Reporting Group Use Only</p> <p>NBN Gateway Worcestershire Biological Records Centre GA000712 Extracted 21/08/2012 WBRC Species data for Worcestershire collated by date.</p> <p>NBN Gateway Worcestershire Biological Records Centre GA000777 Extracted 21/08/2012 WBRC Species data for Worcestershire collated by species group</p> <p>T. Mitchell Jones, NE (pers. comm)</p>
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	The Vincent Wildlife Trust Bat Box data. Sent to JNCC (LH) via Jean Matthews (CCW) 23/08/2012 Wales LRC Priority & Protected Species layer exported from Cofnod Database on 27/04/2012

2.3 Range					
2.3.1 Surface area Range	90470.55 The surface area of the range was calculated from the map presented in 1.1.5. For further details see the 2013 Article 17 UK Approach document.				
2.3.2 Method used Surface area of Range	Estimate based on partial data with some extrapolation and/or modelling For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information				
2.3.3 Short-term trend Period	2001-2012 For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information				
2.3.4 Short term trend Trend direction	increase The short term trend direction was derived by comparing the range map in 1.1.5 with the range map produced in the 2007 report, by considering the range trend in the 2007 report, and by considering any further information provided by the UK country conservation agencies. For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.				
2.3.5 Short-term trend Magnitude Optional	<table border="1"> <tr> <td>a) Minimum</td> <td></td> </tr> <tr> <td>b) Maximum</td> <td></td> </tr> </table>	a) Minimum		b) Maximum	
a) Minimum					
b) Maximum					
2.3.6 Long-term trend Period Optional	1989-2012 For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information				
2.3.7 Long-term trend Trend direction Optional	unknown The long term trend direction was derived by comparing the range map in 1.1.5 with the range map produced in the 2007 report, by considering the range trend in the 2007 report, and by considering any further information provided by the UK country conservation agencies. For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.				
2.3.8 Long-term trend Magnitude Optional	<table border="1"> <tr> <td>a) Minimum</td> <td></td> </tr> </table>	a) Minimum			
a) Minimum					

	b) Maximum	
2.3.9 Favourable reference range	a) Value in km²	79551
	The FRV reported in 2007 has been updated by running the data used for reporting in 2007 through the revised UK range mapping tool. For further details see the 2013 Article 17 UK Approach document.	
	b) Operator for FRR	
	c) FRR is unknown (indicated by "true")	False
	d) Method used to set FRR	The FRV reported in 2007 has been updated by running the data used for reporting in 2007 through the revised UK range mapping tool. The value is considered to be large enough to support a viable population and no lower than the range estimate from when the Habitats Directive came into force in the UK. For further details please see the 2013 Article 17 UK Approach document.
	The FRV reported in 2007 has been updated by running the data used for reporting in 2007 through the revised UK range mapping tool. The value is considered to be large enough to support a viable population and no lower than the range estimate from when the Habitats Directive came into force in the UK. For further details please see the 2013 Article 17 UK Approach document.	
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?	True
	The slight increase in range is thought to be partly a genuine change and partly due to better data.	
	b) Improved knowledge/more accurate data?	True
	The slight increase in range is thought to be partly a genuine change and partly due to better data. For more detail, see country audit notes.	
	c) Use of different method (e.g. "Range tool")?	False
	Use of a revised UK range mapping tool had little effect on the calculation for surface area of range.	

2.4 Population

2.4.1 Population size estimation (using individuals or agreed exceptions where possible)	a) Unit	number of individuals
	The population unit is the same as reported in 2007.	
	b) Minimum	5000
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information	
	c) Maximum	5000
For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information		
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	
2.4.4 Year or period	1995	
For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information		
2.4.5 Method used Population size	Estimate based on expert opinion with no or minimal sampling	
For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information		
2.4.6 Short-term trend Period	2001-2012	
For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information		
2.4.7 Short-term trend Trend direction	unknown	
For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information		
2.4.8 Short-term trend Magnitude Optional	a) Minimum	
	b) Maximum	

	c) Confidence interval	
2.4.9 Short-term trend Method used	Absent data	
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information	
2.4.10 Long-term trend – Period	1989-2012	
Optional	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information	
2.4.11 Long-term trend Trend direction	unknown	
Optional	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information	
2.4.12 Long-term trend Magnitude	a) Minimum	
Optional		
	b) Maximum	
	c) Confidence interval	
2.4.13 Long term trend Method used	Absent data	
Optional	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information	
2.4.14 Favourable reference population	a) Number of individuals/agreed exceptions/other units	
	b) Operator	
	c) FRP is unknown (indicated by "true")	True
	It has not been possible to decide on a FRV for population as insufficient information is known about the species.	
	d) Method used to set FRP	It has not been possible to decide on a FRV for population as insufficient information is known about the species.

	It has not been possible to decide on a FRV for population as insufficient information is known about the species.	
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
	There is no difference in the population estimate reported compared to the 2007 report	
	b) Improved knowledge/more accurate data?	False
	There is no difference in the population estimate reported compared to the 2007 report	
	c) Use of different method (e.g. "Range tool")?	False
There is no difference in the population estimate reported compared to the 2007 report		

2.5 Habitat for the species		
2.5.1 Area estimation	25590 For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information. 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	2000-2012 For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
2.5.3 Method used Habitat for the species	Estimate based on expert opinion with no or minimal sampling For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
2.5.4 Quality of the habitat	a) Habitat quality	Unknown
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
	b) Assessment method	Insufficient information available to assess habitat quality
For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.		
2.5.5 Short-term trend Period	2001-2012 For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
2.5.6 Short-term trend Trend direction	unknown For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	

2.5.7 Long-term trend Period Optional	1989-2012	
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
2.5.8 Long-term trend Trend direction Optional	unknown	
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
2.5.9 Area of suitable habitat for the species	a) Value in km²	
	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
	Surface area of habitat was reported as unknown in 2007 so no comparison is possible.	
	b) Improved knowledge/more accurate data?	False
	Surface area of habitat was reported as unknown in 2007 so no comparison is possible.	
	c) Use of different method (e.g. "Range tool")?	False
Surface area of habitat was reported as unknown in 2007 so no comparison is possible.		

2.6 Main pressures		
a) Pressure	b) Ranking	c) Pollution qualifier
	H = high importance (max 5 entries) M = medium importance L = low importance	
A10: Restructuring agricultural land holding	H	
B02: Forest and Plantation management & use	H	
A02: modification of cultivation practices	M	
A07: use of biocides, hormones and chemicals	M	
J02: human induced changes in hydraulic conditions	M	
E01: Urbanised areas, human habitation	L	

For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.

2.6.1 Method used – Pressures

based only on expert judgements

For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.

2.7 Threats

a) Threat	b) Ranking	c) Pollution qualifier
	H = high importance (max 5 entries) M = medium importance L = low importance	
A10: Restructuring agricultural land holding	H	
B02: Forest and Plantation management & use	H	
A02: modification of cultivation practices	M	
A07: use of biocides, hormones and chemicals	M	
E01: Urbanised areas, human habitation	L	
K04: Interspecific floral relations	L	

For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.

2.7.1 Method used – Threats

expert opinion

For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.

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 (<i>assessment of conservation status at end of reporting period</i>)		
2.9.1 Range	a) Conclusion	Favourable
	Range has been assessed as Favourable because range is greater than FRV and the short term range trend is increasing.	
	b) Qualifier	
2.9.2 Population	a) Conclusion	Unknown
	Population has been assessed as unknown because it is unknown whether the population size is large enough to be viable and the population trend is unknown.	
	b) Qualifier	
2.9.3 Habitat for the species	a) Conclusion	Unknown
	Habitat has been assessed as unknown because it is unknown whether there is sufficient habitat for the species to be viable, and the habitat quality and trend is unknown.	
	b) Qualifier	
2.9.4 Future prospects	a) Conclusion	Unknown
	<p>Future prospects is assessed as unknown on the basis of assessments of the future prospects of the three parameters, range, population and habitat for species:</p> <p>Range future prospects: Good</p> <p>Population future prospects: Unknown</p> <p>Habitat future prospects: Unknown</p> <p>Overall future prospects: Unknown</p>	
	b) Qualifier	
2.9.5 Overall assessment of Conservation Status	Unknown	
	Overall assessment is unknown because population, habitat and future prospects are unknown.	
2.9.6 Overall trend in Conservation Status		

**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	
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
	c) Maximum	
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
3.1.2 Method used	Absent data For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
3.1.3 Trend of population size within the network (short-term trend) Optional	unknown For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	

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
2.0: Other agriculture-related measures		Y		Y		M			Y		Y	Y			
3.0: Other forestry-related measures				Y		M			Y			Y			

3.1: Restoring/improving forest habitats		Y		Y		L			Y		Y	Y			
6.1: Establish protected areas/sites	Y					M			Y	Y	Y	Y			
6.3: Legal protection of habitats and species	Y				Y	H			Y	Y	Y	Y			
6.4: Manage landscape features		Y		Y		M			Y		Y	Y			

For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.