

**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

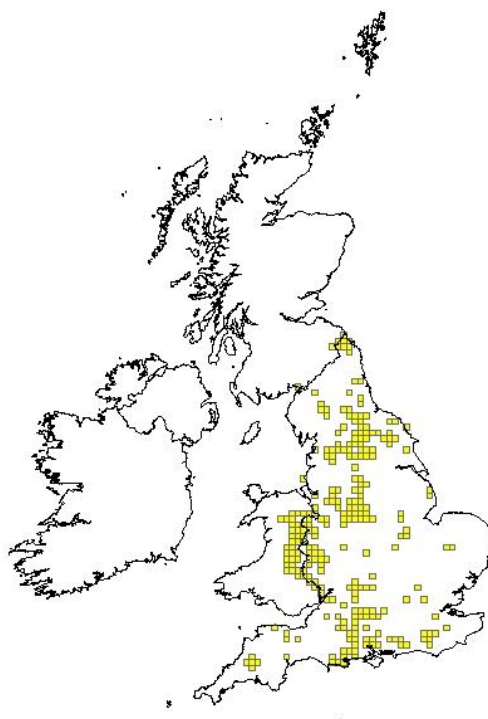
Species:

S1109 - Grayling (*Thymallus thymallus*)

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

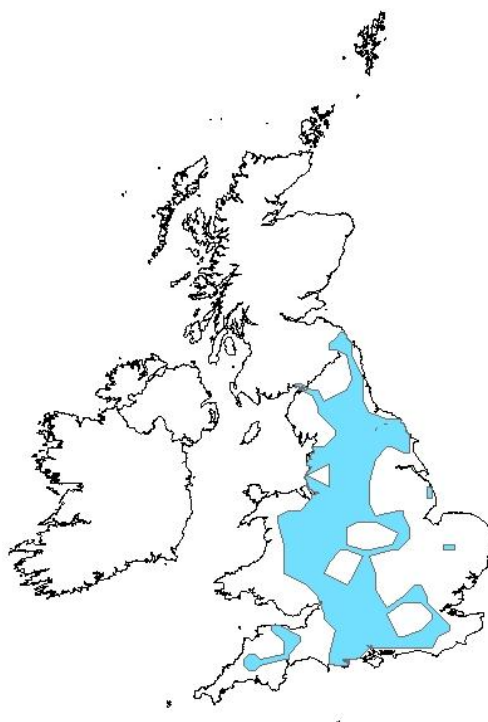
<i>Field name</i>	<i>Brief explanations</i>	
0.2 Species	0.2.1 Species code	S1109
	0.2.2 Species scientific name	<i>Thymallus thymallus</i>
	0.2.3 Alternative species scientific name Optional	
	0.2.4 Common name Optional	

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. The Grayling is not considered to be native to Scotland, so records within Scotland have been excluded from the distribution map. Scottish records were included in the 2007 report, the change in the current map reflects the fact that they have been excluded from this report rather than become extinct from the area.		



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	1990-2012
	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 25km. For further details see the 2013 Article 17 UK Approach document.



2.1 Biogeographical region & marine regions	ATL
2.2 Published sources	<p>Chris Mainstone & Alastair Burn (2011) Relationships between ecological objectives and associated decision-making under the Habitats and Water Framework Directives. Discussion paper, Natural England.</p> <p>Cove R.J. (2007) National Grayling Anglers' Logbook Scheme Angler Report 2006/07. Environment Agency National Fisheries Technical Team Report. Environment Agency, Buckley.</p> <p>DAVIES, C.E., SHELLEY, J., HARDING, P.T., MCLEAN, I.F.G., GARDINER, R. & PEIRSON, G., (eds.) 2004. Freshwater fishes in Britain - the species and their distribution. Harley Books, Colchester.</p> <p>Dawnay, N., L. Dawnay, R. N. Hughes, R. Cove, and M. I. Taylor. 2011. Substantial genetic structure among stocked and native populations of the European grayling (<i>Thymallus thymallus</i>,</p>

	<p>Salmonidae) in the United Kingdom. Conservation Genetics. DOI: 10.1007/s10592-010-0179-4</p> <p>Duigan C, Monteith D.T., Carvalho L., Bennion H., Hutchinson J, Seda J.M., Evans F. (2003) The current ecological and conservation status of Llyn Tegid. In: Llyn Tegid Symposium: The ecology, conservation and environmental history of the largest natural lake in Wales. (Eds. Duigan C, Gritten R, Millband H). University of Liverpool, Liverpool.</p> <p>Environment Agency (2012) Summary of outcomes of the Review of Consents on water-related SACs. Excel spreadsheet.</p> <p>ENVIRONMENT AGENCY 2003. National Trout and Grayling Fisheries Strategy. Environment Agency, Bristol.</p> <p>Huet, M. 1959. Profiles and biology of Western European streams as related to fish management. Transactions of the American Fisheries Society 88:155-163.</p> <p>IBBOTSON, A.T. COVE, R.J., INGRAHAM, A., GALLAGHER, M., HORNBY, D.D., FURSE, M. & WILLIAMS C. 2001. A Review of Grayling Ecology, Status and Management Practice Recommendations for Future Management in England and Wales. Environment Agency, Bristol.</p> <p>Leah, R.T. (2003) A Review of the Ecology of Fish Populations of Llyn Tegid, with special emphasis on the Gwyniad. In: Llyn Tegid Symposium: The ecology, conservation and environmental history of the largest natural lake in Wales. (Eds. Duigan C, Gritten R, Millband H). University of Liverpool, Liverpool.</p> <p>Lucas, M. C., and D. H. Bubb. 2005. Seasonal movements and habitat use of grayling in the UK. Environment Agency Science Report SC030210/SR. Environment Agency, Bristol.</p> <p>M.C.Lucas and D.H.Bubb (2005) Seasonal movements and habitat use of grayling in the UK. Environment Agency Science Report, SC030210/SR. Environment Agency, Bristol.</p> <p>Mainstone C.P. (2008) The role of specially designated wildlife sites in freshwater conservation - an English perspective. Freshwater Reviews, 1, 89-98.</p> <p>Mainstone, C.P. (2010) An evidence base for setting flow targets to protect river habitat. Natural England Research Reports, Number 035. Available at: http://publications.naturalengland.org.uk/publication/9025?category=440349</p> <p>Mainstone, C.P. (2010) An evidence base for setting nutrient targets to protect river habitat. Natural England Research Reports, Number 034. Available at: http://publications.naturalengland.org.uk/publication/30027?category=440349</p> <p>Mainstone, C.P. (2010) An evidence base for setting organic pollution targets to protect river habitat. Natural England Technical Information Note 076. Available at: http://publications.naturalengland.org.uk/publication/33008?category=440349</p> <p>Mainstone, C.P. and Clarke, S.J. (2008) Managing multiple stressors on sites with special protection for freshwater wildlife - the concept of Limits of Liability. Freshwater Reviews, 1, 175-187.</p> <p>Mainstone, C.P. and Holmes, N.T. (2010) Embedding a strategic approach to river restoration in operational management</p>
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processes - experiences in England. **Aquatic Conservation: Marine and Freshwater Ecosystems**. Published online in Wiley InterScience (www.interscience.wiley.com). DOI: 10.1002/aqc.1095

Mainstone, C.P., Dils, R.M. and Withers, P.J.A. (2008). Controlling sediment and phosphorus transfer to receiving waters - A strategic management perspective for England and Wales. *Journal of Hydrology*, 350, 131-143.

MAITLAND, P.S. & CAMPBELL, R.N. 1992. *Freshwater Fishes of the British Isles*. HarperCollins, London.

MAITLAND, P.S. 2004. *Keys to the Freshwater Fish of Britain and Ireland with notes on their distribution and ecology*. Freshwater Biological Association, Scientific Publication No.62.

Natural England (2012) *England Catchment Sensitive Farming Initiative*.
[Http://www.naturalengland.org.uk/ourwork/farming/csf/default.aspx](http://www.naturalengland.org.uk/ourwork/farming/csf/default.aspx).

Nick Dawnay, Louise Dawnay, Roger N. Hughes, Richard Cove, Martin I. Taylor (2010) *Substantial genetic structure among stocked and native populations of the European grayling (Thymallus thymallus, Salmonidae) in the United Kingdom*. *Conservation Genetics*, Published on-line: DOI 10.1007/s10592-010-0179-4.

PERSAT, H. 1996. Threatened populations and conservation of the European grayling, *Thymallus thymallus* (L., 1758). In *Conservation of Endangered Freshwater Fish in Europe* (Kirchhofer, A. & Hefti, D., eds), pp. 233-247. Birkhaeuser Verlag, Basel (Switzerland).

Wheeldon, J (2012) *River Restoration Planning and implementation on River Sites of Special Scientific Interest in England*. Internal Natural England paper.

Woolland, J. V., and J. W. Jones. 1975. *Studies on grayling Thymallus thymallus in Llyn Tegid and the upper River Dee, North Wales. Part 1. Age and growth*. *Journal of Fish Biology* 7:749-773.

UK distribution map data sources

A survey to determine the present status of Anisus vorticulus (Gastropoda: Planorbidae) at sites in Suffolk and Norfolk. Unpublished report for the Environment Agency.

Additional data: Ibbotson et al. 2001. 2012 Wye & Usk Foundation. Sent to JNCC (LH) by CCW (THE) 02/10/2012

Additional data: Stephen Marsh-Smith, Wye & Usk Foundation, pers com. Sent to JNCC (LH) by CCW (THE) 02/10/2012

BIS sent directly to JNCC (no details) SurveyName

Miscellaneous records in BIS area

Ibbotson et al. 2001 Sent to JNCC (LH) within final spreadsheet from CCW (TH-E) 04/10/2012

Ibbotson et al. 2001. 2012 R. Cove. Sent to JNCC (LH) by CCW (THE) 02/10/2012

Ibbotson et al. 2001. Confirmed still present 2012 Wye & Usk Foundation. Sent to JNCC (LH) within final spreadsheet from CCW (TH-E) 04/10/2012

Ibbotson et al. 2001. Confirmed still present R. Cove pers com Sent to JNCC (LH) within final spreadsheet from CCW (TH-E) 04/10/2012

	<p>Ibbotson et al. 2001. Sent to JNCC (LH) by CCW (THE) 02/10/2012</p> <p>Ibbotson et al. 2001.2012 Wye & Usk Foundation. Sent to JNCC (LH) by CCW (THE) 02/10/2012</p> <p>NBN Gateway data: Biological Records Centre GA000174 Database for the Atlas of Freshwater Fishes</p> <p>NBN Gateway data: Bristol Regional Environmental Records Centre GA001100 BRERC JNCC May 2012</p> <p>NBN Gateway data: Dorset Environmental Records Centre GA001111 Dorset Historical Summary Data for Habitats Directive Reporting Group only</p> <p>NBN Gateway data: Environmental Records Information Centre North East GA000504 ERIC North East non-sensitive species records</p> <p>NBN Gateway data: Hampshire Biodiversity Information Centre GA001133 HBIC Protected and notable species</p> <p>NBN Gateway data: Herefordshire Biological Records Centre GA001084 Herefordshire Biological Records Centre Species Records</p> <p>NBN Gateway data: Lancashire Environment Record Network GA001064 LERN Freshwater Fish Records</p> <p>NBN Gateway data: Merseyside BioBank GA000980 North Merseyside Fish (unverified)</p> <p>NBN Gateway data: North & East Yorkshire Ecological Data Centre GA000839 North and East Yorkshire Ecological Data Centre - Non-sensitive Records from all taxonomic groups.</p> <p>NBN Gateway data: Sheffield Biological Records Centre GA000878 Sheffield Biological Records Centre- Non-sensitive Records from all taxonomic groups.</p> <p>NBN Gateway data: Somerset Environmental Records Centre GA001101 Somerset JNCC Article 17 Species</p> <p>NBN Gateway data: Sussex Biodiversity Record Centre GA001076 SxBRC Full dataset for Environment Agency and Natural England use only.</p> <p>NBN Gateway data: Wiltshire and Swindon Biological Records Centre GA000584 Wiltshire & Swindon Site-based Survey Records</p> <p>UK Distribution Map data sources</p> <p>A survey to determine the present status of <i>Anisus vorticulus</i> (Gastropoda: Planorbidae) at sites in Suffolk and Norfolk. Unpublished report for the Environment Agency.</p> <p>Additional data: Ibbotson et al. 2001. 2012 Wye & Usk Foundation. Sent to JNCC (LH) by CCW (THE) 02/10/2012</p> <p>Additional data: Stephen Marsh-Smith, Wye & Usk Foundation, pers com. Sent to JNCC (LH) by CCW (THE) 02/10/2012</p> <p>BIS sent directly to JNCC (no details) SurveyName Miscellaneous records in BIS area</p> <p>Ibbotson et al. 2001 Sent to JNCC (LH) within final spreadsheet from CCW (TH-E) 04/10/2012</p> <p>Ibbotson et al. 2001. 2012 R. Cove. Sent to JNCC (LH) by CCW (THE) 02/10/2012</p> <p>Ibbotson et al. 2001. Confirmed still present 2012 Wye & Usk</p>
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	<p>Foundation. Sent to JNCC (LH) within final spreadsheet from CCW (TH-E) 04/10/2012</p> <p>Ibbotson et al. 2001. Confirmed still present R. Cove pers com Sent to JNCC (LH) within final spreadsheet from CCW (TH-E) 04/10/2012</p> <p>Ibbotson et al. 2001. Sent to JNCC (LH) by CCW (THE) 02/10/2012</p> <p>Ibbotson et al. 2001.2012 Wye & Usk Foundation. Sent to JNCC (LH) by CCW (THE) 02/10/2012</p> <p>NBN Gateway data: Biological Records Centre GA000174 Database for the Atlas of Freshwater Fishes</p> <p>NBN Gateway data: Bristol Regional Environmental Records Centre GA001100 BRERC JNCC May 2012</p> <p>NBN Gateway data: Dorset Environmental Records Centre GA001111 Dorset Historical Summary Data for Habitats Directive Reporting Group only</p> <p>NBN Gateway data: Environmental Records Information Centre North East GA000504 ERIC North East non-sensitive species records</p> <p>NBN Gateway data: Hampshire Biodiversity Information Centre GA001133 HBIC Protected and notable species</p> <p>NBN Gateway data: Herefordshire Biological Records Centre GA001084 Herefordshire Biological Records Centre Species Records</p> <p>NBN Gateway data: Lancashire Environment Record Network GA001064 LERN Freshwater Fish Records</p> <p>NBN Gateway data: Merseyside BioBank GA000980 North Merseyside Fish (unverified)</p> <p>NBN Gateway data: North & East Yorkshire Ecological Data Centre GA000839 North and East Yorkshire Ecological Data Centre - Non-sensitive Records from all taxonomic groups.</p> <p>NBN Gateway data: Sheffield Biological Records Centre GA000878 Sheffield Biological Records Centre- Non-sensitive Records from all taxonomic groups.</p> <p>NBN Gateway data: Somerset Environmental Records Centre GA001101 Somerset JNCC Article 17 Species</p> <p>NBN Gateway data: Sussex Biodiversity Record Centre GA001076 SxBRC Full dataset for Environment Agency and Natural England use only.</p> <p>NBN Gateway data: Wiltshire and Swindon Biological Records Centre GA000584 Wiltshire & Swindon Site-based Survey Records</p>
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2.3 Range	
2.3.1 Surface area Range	<p>63701</p> <p>The surface area of the range was calculated from the map presented in 1.1.5. The Grayling is not considered to be native to Scotland, so records within Scotland have been excluded from being used to produce the range map. Scottish records were included in the 2007 report, the change in the current map reflects the fact that they have been excluded from this report rather than become extinct from the area. For further details see the 2013 Article 17 UK Approach document.</p>
2.3.2 Method used Surface area of Range	<p>Estimate based on partial data with some extrapolation and/or modelling</p> <p>For further details see the 2013 Article 17 UK Approach document and</p>

	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	stable	
	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	a) Minimum	
Optional		
	b) Maximum	
2.3.6 Long-term trend Period	1989-2012	
Optional	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
2.3.7 Long-term trend Trend direction	unknown	
Optional	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	a) Minimum	
Optional		
	b) Maximum	
2.3.9 Favourable reference range	a) Value in km²	63701
	The FRV reported in 2007 has been revised to exclude the Scottish area that that previously included in the FRV because the Grayling is not considered to native in Scotland. The new FRV has been set as the current value for surface area of range. 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 revised to exclude the Scottish area that that previously included in the FRV because the Grayling is not considered to native in Scotland. The new FRV has been set as the current value for surface area of range. 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 see the 2013 Article 17 UK Approach document.
	The FRV reported in 2007 has been revised to exclude the Scottish area that that previously included in the FRV because the Grayling is not considered to native in Scotland. The new FRV has been set as the current value for surface area of range. 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 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?	False	
	The decrease in surface area of range is mainly due to exclusion of Scottish records and use of a revise range mapping tool.		
	b) Improved knowledge/more accurate data?	False	
	The decrease in surface area of range is mainly due to exclusion of Scottish records and use of a revise range mapping tool.		
	c) Use of different method (e.g. "Range tool")?	True	
The decrease in surface area of range is mainly due to exclusion of Scottish records and use of a revised range mapping tool.			

2.4 Population		
2.4.1 Population size estimation (using individuals or agreed exceptions where possible)	a) Unit	
	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	number of map 10x10 km grid cells
	The population unit is the same as reported in 2007.	
	b) Minimum	267

	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.
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 Grayling populations vary naturally (Ibbotson et al. 2001). Changes in occupancy of grid square data, as a surrogate for population is not ideal; further technical work is required to establish a suitable technical method to assess grayling populations.
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.
2.4.4 Year or period	1990-2012
	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 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.
2.4.6 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 Optional	1989-2012	
	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 Optional	unknown	
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
2.4.12 Long-term trend Magnitude Optional	a) Minimum	
	b) Maximum	
	c) Confidence interval	
2.4.13 Long term trend Method used Optional	Absent data	
	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	
	The FRV for population is the same as reported in 2007. For further details please see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
	b) Operator	approximately equal to
	For further details please see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
	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 decrease in population estimate is mostly due to exclusion of the Scottish component from the population estimate.	
	b) Improved knowledge/more	False

	accurate data?	
	The decrease in population estimate is mostly due to exclusion of the Scottish component from the population estimate.	
	c) Use of different method (e.g. "Range tool")?	True
	The decrease in population estimate is mostly due to exclusion of the Scottish component from the population estimate.	

2.5 Habitat for the species		
2.5.1 Area estimation	The specific area of habitat occupied by this species in the UK is unknown.	
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
	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	
	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	Absent data	
	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	Moderate
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
	b) Assessment method	The species is widespread in the river network; assessment is based on specific river condition monitoring and WFD monitoring of waterbody 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	increase	
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
2.5.7 Long-term trend Period	1989-2012	
	Optional	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.
2.5.8 Long-term trend	increase	

Trend direction Optional	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 is unknown so no comparison is possible.	
	b) Improved knowledge/more accurate data?	False
	Surface area of habitat is unknown so no comparison is possible.	
	c) Use of different method (e.g. "Range tool")?	False
	Surface area of habitat is unknown 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	
A01: Cultivation	H	
H01: Pollution to surface waters (limnic & terrestrial, marine & brackish)	H	OPTX
J02: human induced changes in hydraulic conditions	H	O
J03: Other ecosystem modifications	H	
F02: Fishing and harvesting aquatic resources	L	X
I01: invasive non-native species	L	
I02: problematic native species	L	
M01: Changes in abiotic conditions	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 exclusively or to a larger extent on real data from sites/occurrences or other data sources
	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	
A02: modification of cultivation practices	H	
H01: Pollution to surface waters (limnic & terrestrial, marine & brackish)	H	OPTX
J02: human induced changes in hydraulic conditions	H	
J03: Other ecosystem modifications	H	
M01: Changes in abiotic conditions	H	
F02: Fishing and harvesting aquatic resources	L	
I01: invasive non-native species	L	
I02: problematic native species	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 (assessment of conservation status at end of reporting period)		
2.9.1 Range	a) Conclusion	Favourable
	Range has been assessed as Favourable because the surface area of range is equal to the FRV and the short term trend is stable.	
	b) Qualifier	
2.9.2 Population	a) Conclusion	Unknown
	Population has been assessed as unknown, because although the population is equal to the FRV, the short term trend (and long-term trend) is unknown. Total population size in England is enhanced by the large number of introduced populations, whilst the occurrence of the species within its assumed natural range is quite patchy.	
	b) Qualifier	
2.9.3 Habitat for the species	a) Conclusion	Favourable
	Habitat for species has been assessed as Favourable because there is thought to be sufficient habitat to support a viable population, the population quality is moderate, and the trend is increasing.	
	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> <p>A range of measures are being implemented or planned that will improve habitat for the species. Some pressures may intensify or fail to be adequately alleviated due to climate change.</p>	
	b) Qualifier	
2.9.5 Overall assessment of Conservation Status	Unknown	
	The overall assessment is unknown because population 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	
	c) Maximum	
3.1.2 Method used		
3.1.3 Trend of population size within the network (short-term trend) Optional		

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

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