

**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

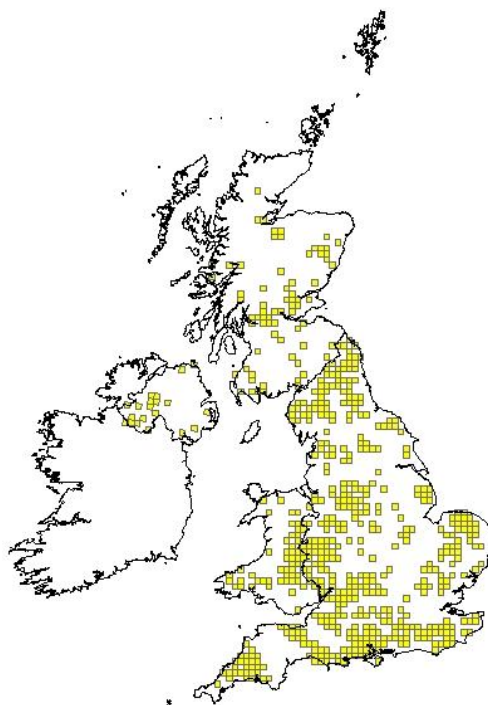
Species:

S1096 - Brook lamprey (*Lampetra planeri*)

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

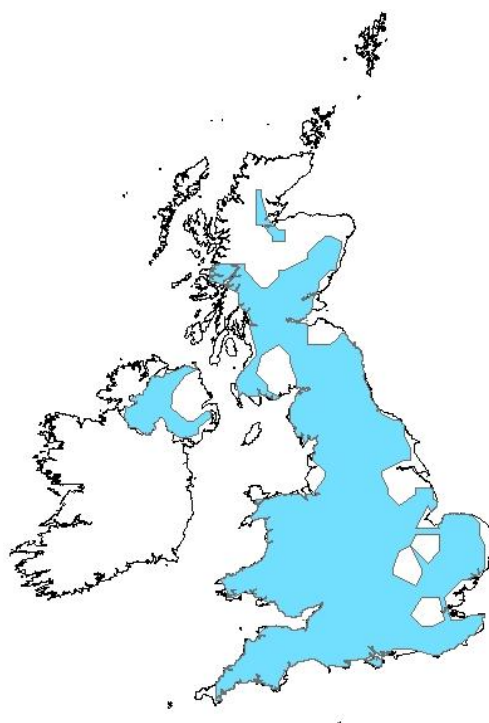
<i>Field name</i>	<i>Brief explanations</i>	
0.2 Species	0.2.1 Species code	S1096
	0.2.2 Species scientific name	<i>Lampetra planeri</i>
	0.2.3 Alternative species scientific name Optional	
	0.2.4 Common name Optional	

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	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, but with additional genus level records (which could not be distinguished to species level) added in. This is because the Brook Lamprey is very hard to distinguish from the River Lamprey, and this approach is thought to result in a better representation of the range of the Brook Lamprey. 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>APEM (1996) A survey of selected English rivers for lamprey 112 pp APEM Stockport Manchester UK</p> <p>APEM (1997) A survey of the upper River Avon for lamprey. 35 pp English Nature, Peterborough</p> <p>APEM (1997) Proposed Carlisle northern relief road: lamprey habitat survey and population survey 25 pp APEM Stockport Manchester UK</p> <p>APEM (1998) A survey of the western arm of the upper River Avon for lamprey. 17 pp English Nature, Peterborough</p> <p>APEM (1998) Lamprey survey of the River Nadder 21 pp APEM Stockport Manchester UK</p> <p>APEM. 2004. Distribution of sea, brook and river lampreys on the River Tay. Scottish Natural Heritage Commissioned Report No. 032 www.snh.gov.uk/publications-data-and-research/publications/search-the-catalogue/publication-detail/?id=200.</p> <p>Biological Records Centre - Database for the Atlas of</p>

	<p>Freshwater Fishes (2004) (via NBN Gateway)</p> <p>Blank, M., K. Jurss, and R. Bastrop. 2008. A mitochondrial multigene approach contributing to the systematics of the brook and river lampreys and the phylogenetic position of <i>Eudontomyzon mariae</i>. Canadian Journal of Fisheries and Aquatic Sciences 65:2780-2790.</p> <p>Bull C, Watt J. 2012. Site condition monitoring of lamprey in the River Teith Special Area of Conservation 2011. Scottish Natural Heritage Commissioned Report.</p> <p>Campbell D, Clarke S, Williams AE. (2005) Lamprey Survey on the Rivers Tywi, Teifi and Cleddau. CCW Review of Consents Report No. 7. Bangor, CCW / EAW.</p> <p>Campbell R, Corson P. 2005. The assessment of lamprey distribution and abundance in the River Tweed cSAC/SSSI. Scottish Natural Heritage Commissioned Report.</p> <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>DAVIES, CE, SHELLEY, J, HARDING, PT, MCLEAN, IFG, GARDINER, R AND PEIRSON, G (eds.). 2004. Freshwater fishes in Britain. The species and their distribution. Harley Books, Colchester.</p> <p>Ecological Research Associates. 2005. A national lamprey survey of Scotland. Report for Scottish Natural Heritage, Clydebank.</p> <p>Environment Agency (2012) Summary of outcomes of the Review of Consents on water-related SACs. Excel spreadsheet.</p> <p>Espanhol, R., P. R. Almeida, and M. J. Alves. 2007. Evolutionary history of lamprey paired species <i>Lampetra fluviatilis</i> (L.) and <i>Lampetra planeri</i> (Bloch) as inferred from mitochondrial DNA variation. <i>Molecular Ecology</i> 16:1909-1924.</p> <p>Forth Fisheries Foundation. 2004. River and brook lamprey monitoring of the Endrick Water cSAC/SSSI. Scottish Natural Heritage Commissioned Report No. 057 www.snh.org.uk/pdfs/publications/commissioned_reports/F03AC607.pdf</p> <p>Gardiner R.(2003) Identifying Lamprey. Conserving Natura 2000 Rivers Techniques Series No. 4. Peterborough, English Nature.</p> <p>Garrett H, Thomas Rh, Hatton-Ellis TW (in prep) River Usk Population Attribute Condition Assessment for Brook, River and Sea Lamprey 2007-12. CCW Staff Science Report No. 11/8/6. Bangor, Countryside Council for Wales.</p> <p>Goodwin CE, Dick JTA, Rogowski DL, Elwood RW. Lamprey (<i>Lampetra fluviatilis</i> and <i>Lampetra planeri</i>) ammocoete habitat associations at regional, catchment and microhabitat scales in Northern Ireland. <i>Ecology of Freshwater Fish</i> 2008: 17: 542-553. 2008.</p> <p>Goodwin, C.E., Dick, J.T.A., Elwood, R.W. 2009. A preliminary assessment of the distribution of the sea lamprey (<i>Petromyzon marinus</i> L.), river lamprey (<i>Lampetra fluviatilis</i> (L.)) and brook lamprey (<i>Lampetra planeri</i> (Bloch)) in Northern Ireland. <i>Biology and Environment: Proceedings of the Royal Irish Academy</i> 109B, 4752; DOI: 10.3318/BIOE.2009.109.1.47.</p> <p>Harvey JP & Cowx IG. (2003). Monitoring the River, Brook and</p>
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	<p>Sea Lamprey, <i>Lampetra fluviatilis</i>, <i>L. planeri</i> and <i>Petromyzon marinus</i>. Conserving Natura 2000 Rivers Monitoring Series No. 5, English Nature, Peterborough http://publications.naturalengland.org.uk/file/118009</p> <p>Harvey JP, Noble RAA, Cowx IG, Nunn AD, Taylor R. (2007) Monitoring of lamprey in the rivers Wye and Usk SACs. CCW Environmental Monitoring Report No. 41. Bangor, Countryside Council for Wales.</p> <p>Hatton-Ellis TW (2012) The Taxonomic Status of River Lamprey (<i>Lampetra fluviatilis</i> L.) and Brook Lamprey (<i>Lampetra planeri</i> Bloch) in Britain: summary of current understanding and advice for Article 17 reporting. CCW advice to JNCC. DCT-12-395837</p> <p>Hume JB. 2011. Adult lamprey survey of the Endrick Water SSSI and SAC 2009-2010. Scottish Natural Heritage Commissioned Report No.480 www.snh.gov.uk/publications-data-and-research/publications/search-the-catalogue/publication-detail/?id=1848.</p> <p>Joint Nature Conservation Committee (JNCC). (2005) Common Standards Monitoring Guidance for Freshwater Fauna. Peterborough, Joint Nature Conservation Committee.</p> <p>Loch Lomond Fishery Trust. 2005. River and brook lamprey monitoring of Endrick Water cSAC/SSSI.</p> <p>Loughs Agency (2010). Lamprey Baseline Surveys: River Finn and River Dee Co Donegal. Loughs Agency of the Foyle Carlingford and Irish Lights Commission. Report Ref: LA/Lamprey/04&09/11.</p> <p>Loughs Agency (2011). Water Framework Directive Fish in Rivers Classification Report. Loughs Agency of the Foyle Carlingford and Irish Lights Commission. Report Ref: LA/WDFIRNI/11.</p> <p>Mainstone C.P. (2008) The role of specially designated wildlife sites in freshwater conservation - an English perspective. <i>Freshwater Reviews</i>, 1, 89-98.</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. <i>Freshwater Reviews</i>, 1, 175-187.</p> <p>Mainstone, C.P. and Holmes, N.T. (2010) Embedding a strategic approach to river restoration in operational management processes - experiences in England. <i>Aquatic Conservation: Marine and Freshwater Ecosystems</i>. Published online in Wiley InterScience (www.interscience.wiley.com). DOI: 10.1002/aqc.1095</p> <p>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. <i>Journal of Hydrology</i>, 350, 131-143.</p> <p>Maitland PS, Lyle AA. 2000. Distribution of lampreys in the River Teith. Scottish Natural Heritage Commissioned Report.</p> <p>Maitland, PS. (2003). Ecology of the River, Brook and Sea Lamprey. Conserving Natura 2000 Rivers, Ecology Series No. 5. Peterborough: English Nature. http://www.english-nature.org.uk/LIFEinUKRivers/publications/lamprey.pdf</p> <p>Maitland, PS. (2004). Keys to the Freshwater Fish of Britain and Ireland, with notes on their distribution and ecology. FBA</p>
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	<p>Scientific Publication No.62.</p> <p>MAITLAND, PS. 1980. Review of the ecology of lampreys in northern Europe. Canadian Journal of Fisheries and Aquatic Sciences. 37, 1944-1952.</p> <p>MAITLAND, PS. 2003. Ecology of the River, Brook and Sea Lamprey. Conserving Natura 2000 Rivers, Ecology Series No. 5. English Nature, Peterborough. Http://www.english-nature.org.uk/LIFEinUKRivers/publications/lamprey.pdf</p> <p>Natural England (2012) England Catchment Sensitive Farming Initiative. Http://www.naturalengland.org.uk/ourwork/farming/csf/default.aspx.</p> <p>North East Scotland Biological Records Centre: NE Scotland fish records 1800-2010.</p> <p>Schreiber, A., and R. Engelhorn. 1998. Population genetics of a cyclostome species pair, river lamprey (<i>Lampetra fluviatilis</i> L.) and brook lamprey (<i>Lampetra planeri</i> Bloch). <i>Journal of Zoological Systematics and Evolutionary Research</i> 36:85-99.</p> <p>Teague N, Webb H, Allen V, Cesar CP, Thomas Rh, Hatton-Ellis T. (2012) Lamprey monitoring on the River Dee Special Area of Conservation (SAC) CCW Contract Science Report 975. Bangor, Countryside Council for Wales.</p> <p>Thomas Rh, Garrett H. (2012) Afon Tywi Population Attribute Condition Assessment for Brook, River and Sea Lamprey 2011. CCW Staff Science Report 11/8/5. Bangor, Countryside Council for Wales.</p> <p>Thomas Rh, Hatton-Ellis TW, Garrett H (in prep) Water Quality Assessments for River Special Areas of Conservation: Third Habitats Directive Reporting Round (2007-2012). CCW Staff Science Report No. 12/8/2. CCW, Bangor.</p> <p>Watt J, Bull C, Ravenscroft NOM, Seed M. 2011. Lamprey Survey of the Endrick Water SSSI/SAC 2008. Scottish Natural Heritage Commissioned Report No. 320 www.snh.gov.uk/publications-data-and-research/publications/search-the-catalogue/publication-detail/?id=1849.</p> <p>Watt J, Bull C, Ravenscroft NOM. 2012. Lamprey site condition monitoring of the River Tweed SSSI and SAC 2011. Scottish Natural Heritage Commissioned Report.</p> <p>Watt J, Ravenscroft NOM, Seed M. 2008. Site condition monitoring of lamprey in the River Tay Special Area of Conservation. Scottish Natural Heritage Commissioned Report No. 292 www.snh.gov.uk/publications-data-and-research/publications/search-the-catalogue/publication-detail/?id=1337.</p> <p>West, R (2005). River Dee candidate special area of conservation lamprey survey 2004. CCW Review of Consents Report No.18</p> <p>Wheeldon, J (2012) River Restoration Planning and implementation on River Sites of Special Scientific Interest in England. Internal Natural England paper.</p> <p>UK distribution map data sources</p> <p>Art Niven/Loughs Agency Emailed to JNCC (LH) by Kyle Hunter 18/10/2012</p>
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	<p>BIS CCW Abergavenny SSSI Scientific Data Emailed to JNCC (no details) Summer 2012</p> <p>BIS CCW Radnor and North Brecknock-SSSI Scientific Data Emailed to JNCC (no details) Summer 2012</p> <p>BIS sent directly to JNCC (no details) SurveyName BBNP Species Database</p> <p>BIS sent directly to JNCC (no details) SurveyName BIS casual records -verified</p> <p>BIS sent directly to JNCC (no details) SurveyName Miscellaneous records in BIS area</p> <p>BIS sent directly to JNCC (no details) SurveyName Welsh Biological Recording Group: Reports and Records of Field Meetings 1972/73</p> <p>Chrisite Greer QUB CIRB project Emailed to JNCC (LH) by Kyle Hunter 18/10/2012</p> <p>JNCC Report 312 (Dataset, CEDAR)</p> <p>Loughs Agency Emailed to JNCC (LH) by Kyle Hunter 18/10/2012</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 GA000426 BRERC February 2012</p> <p>NBN Gateway data: Bristol Regional Environmental Records Centre GA001100 BRERC JNCC May 2012</p> <p>NBN Gateway data: Countryside Council for Wales GA000488 Freshwater Lamprey Survey Data</p> <p>NBN Gateway data: Countryside Council for Wales GA000814 Freshwater Shad Monitoring data</p> <p>NBN Gateway data: Countryside Council for Wales GA001146 CCW Freshwater Fish ad hoc Records for Article 17 Reporting</p> <p>NBN Gateway data: Cumbria Biodiversity Data Centre GA000871 Cumbria Biodiversity Data Centre. Vertebrate Observation Records, other than Birds. Pre-2010 for Cumbria</p> <p>NBN Gateway data: Environment Agency GA001129 Environment Agency Rare and Protected Species records v1</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: Kent & Medway Biological Records Centre GA001015 Fish: Records for Kent.</p> <p>NBN Gateway data: National Trust GA001105 Extract of National Trust species database covering Article 17 species</p> <p>NBN Gateway data: Norfolk Biodiversity Information Service GA000908 Norfolk Environment Agency Priority Species Records</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: North East Scotland Biological Records Centre GA000801 NE Scotland fish records 1800-2010</p> <p>NBN Gateway data: Rotherham Biological Records Centre GA000843 Rotherham Biological Records Centre - Non-sensitive Records from all taxonomic groups</p> <p>NBN Gateway data: Scottish Natural Heritage GA001145 SNH</p>
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	<p>Species Repository</p> <p>NBN Gateway data: Scottish Natural Heritage GA001148 Site Condition Monitoring Records from surveys of lamprey species in five river SACs in Scotland</p> <p>NBN Gateway data: Scottish Wildlife Trust GA000736 Commissioned surveys and staff surveys and reports for SWT reserves.</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: Sussex Biodiversity Record Centre GA001076 SxBRC Full dataset for Environment Agency and Natural England use only.</p> <p>NBN Gateway data: West Wales Biodiversity Information Centre GA000697 CCW Regional Data: all taxa (excluding sensitive species), West Wales</p> <p>NBN Gateway data: Wiltshire and Swindon Biological Records Centre GA000584 Wiltshire & Swindon Site-based Survey Records</p> <p>NBN Gateway data: Worcestershire Biological Records Centre GA000712 WBRC Species data for Worcestershire collated by date.</p> <p>NIEA Emailed to JNCC (LH) by Kyle Hunter 18/10/2012</p> <p>UK Biodiversity Action Plan: Invertebrate data for Ceredigion (1878-2001)</p> <p>Water Management Unit NI. Emailed to JNCC (LH) by Kyle Hunter 29/11/2012</p> <p>UK Distribution Map data sources</p> <p>Art Niven/Loughs Agency Emailed to JNCC (LH) by Kyle Hunter 18/10/2012</p> <p>BIS CCW Abergavenny SSSI Scientific Data Emailed to JNCC (no details) Summer 2012</p> <p>BIS CCW Radnor and North Brecknock-SSSI Scientific Data Emailed to JNCC (no details) Summer 2012</p> <p>BIS sent directly to JNCC (no details)SurveyName BBNP Species Database</p> <p>BIS sent directly to JNCC (no details)SurveyName BIS casual records - verified</p> <p>BIS sent directly to JNCC (no details)SurveyName Miscellaneous records in BIS area</p> <p>BIS sent directly to JNCC (no details)SurveyName Welsh Biological Recording Group: Reports and Records of Field Meetings 1972/73</p> <p>Chrisite Greer QUB CIRB project Emailed to JNCC (LH) by Kyle Hunter 18/10/2012</p> <p>JNCC Report 312 (Dataset, CEDAR)</p> <p>Loughs Agency Emailed to JNCC (LH) by Kyle Hunter 18/10/2012</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 GA000426 BRERC February 2012</p> <p>NBN Gateway data: Bristol Regional Environmental Records Centre GA001100 BRERC JNCC May 2012</p>
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	<p>NBN Gateway data: Countryside Council for Wales GA000488 Freshwater Lamprey Survey Data</p> <p>NBN Gateway data: Countryside Council for Wales GA000814 Freshwater Shad Monitoring data</p> <p>NBN Gateway data: Countryside Council for Wales GA001146 CCW Freshwater Fish ad hoc Records for Article 17 Reporting</p> <p>NBN Gateway data: Cumbria Biodiversity Data Centre GA000871 Cumbria Biodiversity Data Centre. Vertebrate Observation Records, other than Birds. Pre-2010 for Cumbria</p> <p>NBN Gateway data: Environment Agency GA001129 Environment Agency Rare and Protected Species records v1</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: Kent & Medway Biological Records Centre GA001015 Fish: Records for Kent.</p> <p>NBN Gateway data: National Trust GA001105 Extract of National Trust species database covering Article 17 species</p> <p>NBN Gateway data: Norfolk Biodiversity Information Service GA000908 Norfolk Environment Agency Priority Species Records</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: North East Scotland Biological Records Centre GA000801 NE Scotland fish records 1800-2010</p> <p>NBN Gateway data: Rotherham Biological Records Centre GA000843 Rotherham Biological Records Centre - Non-sensitive Records from all taxonomic groups</p> <p>NBN Gateway data: Scottish Natural Heritage GA001145 SNH Species Repository</p> <p>NBN Gateway data: Scottish Natural Heritage GA001148 Site Condition Monitoring Records from surveys of lamprey species in five river SACs in Scotland</p> <p>NBN Gateway data: Scottish Wildlife Trust GA000736 Commissioned surveys and staff surveys and reports for SWT reserves.</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: Sussex Biodiversity Record Centre GA001076 SxBRC Full dataset for Environment Agency and Natural England use only.</p> <p>NBN Gateway data: West Wales Biodiversity Information Centre GA000697 CCW Regional Data: all taxa (excluding sensitive species), West Wales</p> <p>NBN Gateway data: Wiltshire and Swindon Biological Records Centre GA000584 Wiltshire & Swindon Site-based Survey Records</p> <p>NBN Gateway data: Worcestershire Biological Records Centre GA000712 WBRC Species data for Worcestershire collated by date.</p> <p>NIEA Emailed to JNCC (LH) by Kyle Hunter 18/10/2012</p> <p>UK Biodiversity Action Plan: Invertebrate data for Ceredigion (1878- 2001)</p> <p>Water Management Unit NI. Emailed to JNCC (LH) by Kyle Hunter 29/11/2012</p>
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2.3 Range		
2.3.1 Surface area Range	168863.14	
	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	stable	
	The short term trend direction was derived by comparing the map in 1.1.1 with the 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	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	stable	
	The long term trend direction was derived by comparing the map in 1.1.1 with the 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	a) Minimum	
	b) Maximum	
2.3.9 Favourable reference	a) Value in km²	168863

range	The current range has been set as the FRV since this is thought to be a better reflection of the range when the Habitats Directive came into force. 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 current range has been set as the FRV since this is thought to be a better reflection of the range when the Habitats Directive came into force. 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 current range has been set as the FRV since this is thought to be a better reflection of the range when the Habitats Directive came into force. 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?
The apparent increase in the surface area of range is not thought to be genuine, but due to better data and the inclusion of genus level records that could not be distinguished to species level.		
b) Improved knowledge/more accurate data?		True
The apparent increase in the surface area of range is not thought to be genuine, but due to better data and the inclusion of genus level records that could not be distinguished to species level.		
c) Use of different method (e.g. "Range tool")?		True
The apparent increase in the surface area of range is not thought to be genuine, but due to better data and the inclusion of genus level records that could not be distinguished to species level.		

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 1x1 km grid cells
	b) Minimum	1379
	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	It is not possible to distinguish between river lamprey and brook lamprey at the ammocoetes life stage. Although ammocoete density measures are available for many rivers, ammocoetes cannot be identified to species.
	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	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.	
2.4.10 Long-term trend – Period Optional		
2.4.11 Long-term trend Trend direction Optional		
2.4.12 Long-term trend Magnitude Optional	a) Minimum	
	b) Maximum	
	c) Confidence interval	
2.4.13 Long term trend Method used Optional		
2.4.14 Favourable reference population	a) Number of individuals/agreed exceptions/other units	
	b) Operator	
	c) FRP is unknown (indicated by "true")	True There is insufficient information available to set a FRV.
	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	a) Genuine change?	False The population was reported as unknown in 2007 so no comparison is

reporting round mainly due to:	possible.	
	b) Improved knowledge/more accurate data?	False
	The population was reported as unknown in 2007 so no comparison is possible.	
	c) Use of different method (e.g. "Range tool")?	False
	The population was reported as unknown in 2007 so no comparison is possible.	

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	1990-2012	
	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	Condition assessment of SAC rivers and wider assessment of ecological status under the Water Framework Directive.
	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 Trend direction Optional	increase	
	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	
H01: Pollution to surface waters (limnic & terrestrial, marine & brackish)	H	X
J02: human induced changes in hydraulic conditions	H	X
J03: Other ecosystem modifications	H	
A01: Cultivation	L	N
A02: modification of cultivation practices	L	
A04: grazing	L	
A06: annual and perennial non-timber crops	L	
A07: use of biocides, hormones and chemicals	L	O
A08: Fertilisation	L	N
B02: Forest and Plantation	L	

management & use		
C01: Mining and quarrying	L	
C03: Renewable abiotic energy use	L	
D01: Roads, paths and railroads	L	X
E01: Urbanised areas, human habitation	L	X
E03: Discharges	L	
I01: invasive non-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	
H01: Pollution to surface waters (limnic & terrestrial, marine & brackish)	H	X
J02: human induced changes in hydraulic conditions	H	X
J03: Other ecosystem modifications	H	
M01: Changes in abiotic conditions	H	
A01: Cultivation	L	N
A02: modification of cultivation practices	L	
A04: grazing	L	
A06: annual and perennial non-timber crops	L	
A07: use of biocides, hormones and chemicals	L	O

A08: Fertilisation	L	N
B02: Forest and Plantation management & use	L	
C01: Mining and quarrying	L	
C03: Renewable abiotic energy use	L	
D01: Roads, paths and railroads	L	X
E01: Urbanised areas, human habitation	L	X
E03: Discharges	L	
E06: Other urbanisation, industrial and similar activities	L	
I01: invasive non-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 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 the FRV is unknown, although the short term population trend is unknown.	
	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 area of habitat to support a viable population and the habitat quality is moderate and the habitat trend is improving.	
	b) Qualifier	
2.9.4 Future prospects	a) Conclusion	Favourable
	Future prospects is assessed as Favourable on the basis of assessments of the future prospects of the three parameters, range, population and habitat for species: Range future prospects: Good Population future prospects: Unknown Habitat future prospects: Good Overall future prospects: Good	
	b) Qualifier	
2.9.5 Overall assessment of Conservation Status	Favourable	
	The overall assessment is Favourable because range, habitat for species and future prospects are favourable.	
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	a) Unit	number of map 1x1 km grid cells
Estimation of population size included in the SAC network		
	b) Minimum	364
	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	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.	
3.1.3 Trend of population size within the network (short-term trend)	stable	
Optional	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
1.2: Measures needed, but not implemented					Y	L			Y		Y				
2.0: Other agriculture-related measures	Y					L			Y			Y			
4.0: Other wetland-related measures	Y	Y	Y	Y	Y	H	Y			Y	Y	Y			
4.1: Restoring/improving water quality	Y	Y	Y	Y		H			Y	Y	Y	Y		Y	

4.2: Restoring/improving the hydrological regime	Y	Y			Y	H			Y	Y	Y	Y			Y
4.3: Managing water abstraction	Y				Y	H			Y	Y	Y	Y			
6.3: Legal protection of habitats and species	Y					L			Y			Y			
7.4: Specific single species or species group management measures	Y					L			Y			Y			
8.0: Other measures	Y					L			Y	Y	Y				
8.1: Urban and industrial waste management	Y					L			Y			Y			
8.2: Specific management of traffic and energy transport systems	Y					L			Y			Y			

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