

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

Supporting documentation for the
Third Report by the United Kingdom under
Article 17

on the implementation of the Directive
from January 2007 to December 2012
Conservation status assessment for

Species:

S1355 - Otter (*Lutra lutra*)

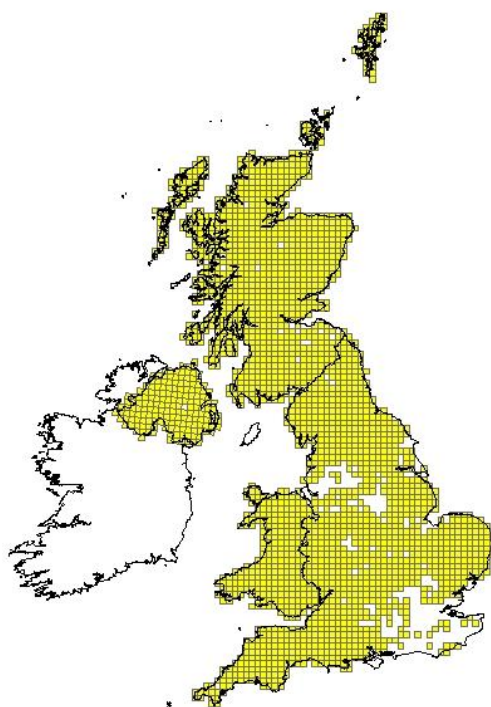
IMPORTANT NOTE – PLEASE READ

- The country-level reporting information contained in this document is a contribution to the Article 17 UK report for the habitat/species concerned.
- It has been provided by **Northern Ireland Environment Agency** and refers only to the state of the habitat/species in **Northern Ireland** - it does not constitute an assessment for the whole of the UK.
- The Article 17 UK Approach document provides details on how this information has been used and, combined with information supplied by other Statutory Nature Conservation Bodies
- The format of the document is closely aligned to that set out by the European Commission for Member State reporting – as a result, some of the fields are not applicable at a country-level and have deliberately been left blank – in addition, the content of most fields is constrained by the EC reporting categories.

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

<i>Field name</i>	<i>Brief explanations</i>	
0.2 Species	0.2.1 Species code	S1355
	0.2.2 Species scientific name	<i>Lutra lutra</i>
	0.2.3 Alternative species scientific name Optional	
	0.2.4 Common name Optional	European Otter

1.1 Maps			
1.1.1 Distribution map		Sensitive	False



1.1.2 Method used - map	Estimate based on partial data with some extrapolation and/or modelling		
	Three national surveys have been undertaken for Northern Ireland since 1982 (Chapman and Chapman. 1982 & Preston et al. 2004), with the most recent survey taking place in 2010 (Preston et al. 2010).		
1.1.3 Year or period	2007-2012		
	Refer to 1.1.2		
1.1.4 Additional distribution map	False		

1.1.5 Range map	
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2.1 Biogeographical region & marine regions	ATL
2.2 Published sources	<p>"ANDREWS, E. & CRAWFORD, A.K. 1986. Otter Survey of Wales 1984–85. Vincent Wildlife Trust, London.</p> <p>ANDREWS, E., HOWELL, P. & JOHNSON, K. 1993. Otter Survey of Wales 1991. Vincent Wildlife Trust, London.</p> <p>BATTERSBY, J (Ed.) & TRACKING MAMMALS PARTNERSHIP 2005. UK Mammals: Species Status and Population Trends. JNCC/Tracking Mammals Partnership.</p> <p>CONROY, J.W.H. & KRUIK, H. 1995. Changes in otter numbers in Shetland. Unpublished report to Shetland Oil Terminal Advisory Group. ITE project 815, Institute of Terrestrial Ecology, Banchory.</p> <p>CRAWFORD, A. 2003. Fourth Otter Survey of England 2000–2002. Environment Agency, Bristol. Available to download from the Environment Agency website (www.environmentagency.gov.uk/subjects/conservation/483249/?version=1&lang=_e)</p> <p>CRAWFORD, A., EVANS, D., JONES, A. & McNULTY, J. 1979. Otter Survey of Wales 1977–78. Society for the Promotion of Nature Conservation, Lincoln.</p> <p>GREEN, J. & GREEN, R. 1980. Otter Survey of Scotland 1977–79. Vincent Wildlife Trust, London.</p> <p>GREEN, J. & GREEN, R. 1987. Otter Survey of Scotland 1984–85. Vincent Wildlife Trust, London.</p> <p>GREEN, J. & GREEN, R. 1997. Otter survey of Scotland 1991–94. Vincent Wildlife Trust, London.</p> <p>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.</p> <p>JEFFERIES, D.J. 1989. The changing otter population of Britain 1700–1989. Biological Journal of the Linnean Society 38, 61–69.</p> <p>JEFFERIES, D.J., STRACHAN, C. & STRACHAN, R. 2003. Estimating numbers of the three interacting riparian mammals in Britain using survey data. In: JEFFERIES, D.J. (Ed) The water vole and mink survey of 1996–1998 with a history of the long-term changes in the status of both species and their causes. pp188–197. Vincent Wildlife Trust, Ledbury.</p>

- JONES, T. & JONES, D. 2004. Otter Survey of Wales 2002. Environment Agency, Bristol. Available to download from the Environment Agency website (www.environmentagency.gov.uk/subjects/conservation/483249/?version=1&lang=_e)**
- KRUUK, H. 1995. Wild otters: Predation and populations. Oxford University Press, Oxford.**
- LILES, G. 2003. Conserving Natura 2000 Rivers Conservation Techniques Series No. 5: Otter Breeding Sites - Conservation and Management. English Nature, Peterborough.**
- STRACHAN, R. 2007 National survey of otter *Lutra lutra* distribution in Scotland 2003-04. Scottish Natural Heritage Commissioned Report No. 211 (ROAME No. F02AC309).**
- STRACHAN, R. & JEFFERIES, D.J. 1996. Otter Survey of England 1991-1994. A report on the decline and recovery of the otter in England and on its distribution, status and conservation in 1991-1994. Vincent Wildlife Trust, London**
- CHAPMAN, P.J. & CHAPMAN, L.L. 1982. Otter Survey of Ireland 1980-1981. The Vincent Wildlife Trust.**
- PRESTON, J., PRODHOL, P., PORTIG, A. & MONTGOMERY, I. 2004. Reassessing otter *Lutra lutra* distribution in Northern Ireland. Environment and Heritage Service Research and Development Series. No. 06/24. Available to download from the Environment and Heritage Service website (www.ehsni.gov.uk/pubs/publications/otterreportNov2004.pdf).**
- PRESTON, S.J & REID, N.2010. Northern Ireland Otter Survey. Report prepared by the Natural Heritage Research Partnership, Quercus, Queen's University Belfast for the Northern Ireland Environment Agency. Northern Ireland Environment Agency Research and Development Series No. 11/06.**
- Cooper, A., McCann, T. and Rogers, D. (2009) Northern Ireland Countryside Survey 2007: Broad Habitat Change 1998-2007. Northern Ireland Environment Agency Research and Development Series No. 09/06**
- Unpublished data. (2010-2012) CSM Survey Presence/Absence (% Coverage). NIEA. Natural Heritage. DoE.**
- Northern Ireland Species Action Plan-Otter (*Lutra lutra*)-2008. DOE NIEA Publication. (Available to Download at www.doeni.gov.uk/niea/ottersapwebversionapril2008.pdf)**
- Department of the Environment (2002) Northern Ireland Biodiversity Strategy. NIEA, Belfast. (www.doeni.gov.uk/niea//nibs2002.pdf).**
- Reid, N., Hayden, B., Lundy, M.G., Pietravalle, S., McDonald, R.A. & Montgomery, W.I. (2012) National Otter Survey of Ireland 2010/12. Prepared by Quercus, Queen's University Belfast for the**

	National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland."

2.3 Range	
2.3.1 Surface area Range	13843
2.3.2 Method used Surface area of Range	Estimate based on partial data with some extrapolation and/or modelling
2.3.3 Short-term trend Period	2001-2012 In Northern Ireland, the most recent survey showed 88.6% occupancy of sites surveyed, indicating a significant increase of 26.9% since the previous Northern Ireland Otter Survey in 2001-2002.
2.3.4 Short term trend Trend direction	increase Refer to 2.3.3
2.3.5 Short-term trend Magnitude	a) Minimum
	b) Maximum
2.3.6 Long-term trend Period	
2.3.7 Long-term trend Trend direction	
2.3.8 Long-term trend Magnitude Optional	a) Minimum
	b) Maximum
2.3.9 Favourable reference range	a) Value in km²
	b) Operator for FRR

	c) FRR is unknown (indicated by "true")	False
	d) Method used to set FRR	
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
	b) Improved knowledge/more accurate data?	False
	c) Use of different method (e.g. "Range tool")?	False

2.4 Population		
2.4.1 Population size estimation (using individuals or agreed exceptions where possible)	a) Unit	number of individuals
	A currently unpublished report the " National Otter Survey of Ireland 2010/12" (Reid, N., Hayden, B., Lundy, M.G., Pietravallo, S., McDonald, R.A. & Montgomery, W.I. (2012) National Otter Survey of Ireland 2010/12. Prepared by Quercus, Queen's University Belfast for the National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.) gives a figure of 1,600 adult breeding females for NI based on the availability of habitat per catchment or specifically " 1,600 is the mean number of adult breeding females \pm 95% CIs in NI". This information was provided by Neil Reid per.comms. As the report has not attempted to estimate adult male or sub adults I recommend we use the 1,600 figure as the minimum number present in NI.	
	b) Minimum	1600
	c) Maximum	1600
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 localities
	b) Minimum	141

	Minium number of occupied 10x10km is based on post 2006 records	
	c) Maximum	141
	Maxium number of occupied 10x10km is based on post 2006 records	
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	The population number in 2.4.1 only relates to the adult females and does not take into account adult males or sub adults.
2.4.4 Year or period	2007-2012	
2.4.5 Method used Population size	Estimate based on partial data with some extrapolation and/or modelling	
2.4.6 Short-term trend Period	2001-2012	
2.4.7 Short-term trend Trend direction	increase Although the number of occupied 10x10km has decreased between the 2001-2006 reporting period and the 2007-2012 period in Northern Ireland, the recent 2010 survey indicating a significant increase of occurrence of 26.9% since the previous Northern Ireland Otter Survey in 2001-2002, as the recent survey showed 88.6% occupancy of sites surveyed compared to 62.5% in 2001-2002. See 2.3 for source.	
2.4.8 Short-term trend Magnitude	a) Minimum	
	b) Maximum	
	c) Confidence interval	
2.4.9 Short-term trend Method used	Estimate based on partial data with some extrapolation and/or modelling	
2.4.10 Long-term trend –	1988-2012	

Period		
2.4.11 Long-term trend Trend direction	increase	
	The long term trend is derived from the three Northern Ireland national surveys between 1981 and 2010 shows a fluctuating population with the 1881-82 recording 78.4% presence in all sites investigated, the 2001-2002 recorded 62.5% and the 2010 recorded 88.6%. The short term trend 2.4.7 shows a significant increase while the long term trend is less marked but still indicating an increase. See 2.3 for source.	
2.4.12 Long-term trend Magnitude Optional	a) Minimum	
	b) Maximum	
	c) Confidence interval	
2.4.13 Long term trend Method used	2	
2.4.14 Favourable reference population	a) Number of individuals/agreed exceptions/other units	
	b) Operator	
	c) FRP is unknown indicated by "true"	True
	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
	b) Improved knowledge/more accurate data?	False

	c) Use of different method (e.g. "Range tool")?	False

2.5 Habitat for the species			
2.5.1 Area estimation	<p>0</p> <p>The surface area of habitat currently used by <i>L. lutra</i> is unknown. It is impossible to estimate total length of inland water or coastal bank that might be occupied by <i>L. lutra</i> currently, using the estimate of total length of riparian habitats provided in Harris et al. (1995), population densities provided by Jefferies et al. (2003) and number of occupied sites in the most recent national surveys. These give a total of 198,362 km of linear riparian habitat currently occupied by <i>L. lutra</i> in Great Britain (GB): 46,357 in England; 20,821 km in Wales; and 131,184 km in Scotland, which represents approximately 64% of the total riparian habitat across GB. There is no estimate for Northern Ireland. However, the reliability of this estimate is very low because it is based on expert opinion and extrapolation from densities in local surveys to a national scale estimate. It also does not provide an area estimate because the measurement is of linear features.</p> <p>There is thought to be a sufficient amount of habitat in the UK to support a viable population of the species.</p>		
2.5.2 Year or period	<p>2001-2012</p> <p>Refer to 2.5.1</p>		
2.5.3 Method used Habitat for the species	<p>Absent data</p> <p>Refer to 2.5.1</p>		
2.5.4 Quality of the habitat	<table border="1"> <tr> <td>a) Habitat quality</td> <td>Unknown</td> </tr> </table>	a) Habitat quality	Unknown
	a) Habitat quality	Unknown	
<table border="1"> <tr> <td>b) Assessment method</td> <td>Habitat used by <i>L. lutra</i> has been relatively well documented. However, there are no estimates pertaining to habitat area used by, or available to, current <i>L. lutra</i> populations.</td> </tr> </table>	b) Assessment method	Habitat used by <i>L. lutra</i> has been relatively well documented. However, there are no estimates pertaining to habitat area used by, or available to, current <i>L. lutra</i> populations.	
b) Assessment method	Habitat used by <i>L. lutra</i> has been relatively well documented. However, there are no estimates pertaining to habitat area used by, or available to, current <i>L. lutra</i> populations.		
2.5.5 Short-term trend Period	<p>2001-2012</p> <p>The time period selected reflects the results of two Northern Ireland</p>		

	Countryside Surveys carried out in 1998 and 2007 (Cooper, A., McCann, T. and Rogers, D.(2009).	
2.5.6 Short-term trend Trend direction	stable	
	<p>Although the actual area of habitat required by a favourable reference population of <i>L. lutra</i> in unknown, there is some information on trends in quality and amount of suitable habitat used by <i>L. lutra</i> in the UK. River and riparian habitat suffered degradation in the UK during the 20th century. However, there is evidence to suggest that these trends are now in reverse. Riparian habitats have been assessed in the two most recent Countryside Surveys, in 1998 and 2007 (Cooper, A., McCann, T. and Rogers, D.2009) and a comparison of results showed that the overall area of streams, rivers and standing waterbodies has remained stable in Northern Ireland during this period, while Fen, marsh and swamp decreased by 10.7%.</p> <p>Water quality has improved during the trend period.</p>	
2.5.7 Long-term trend Period		
2.5.8 Long-term trend Trend direction		
2.5.9 Area of suitable habitat for the species	a) Value in km²	0
	<p>An estimate of total length of riparian habitats in Great Britain has been provided by Harris et al. (1995), including length of river systems, streams, canals, lake and coastal (in Scotland) shores. The estimate is 136,345 km in England, 144,365 km in Scotland and 28,136 km in Wales. There is no estimate for Northern Ireland. This gives a total of 308,846 km of riparian habitats that could potentially be used by <i>L. lutra</i>. However, there is no information on how much of this is currently suitable habitat for <i>L. lutra</i>.</p>	
	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
	b) Improved knowledge/more accurate data?	False
	c) Use of different method (e.g. "Range tool")?	False

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2.6 Main pressures		
a) Pressure	b) Ranking	c) Pollution qualifier
	H = high importance M = medium importance L = low importance	
A02: modification of cultivation practices	H	X
A06: annual and perennial non-timber crops	H	
A07: use of biocides, hormones and chemicals	H	X
E03: Discharges	H	X
H01: Pollution to surface waters (limnic & terrestrial, marine & brackish)	H	OT
J02: human induced changes in hydraulic conditions	H	
A04: grazing	M	
D01: Roads, paths and railroads	M	

See 2.2 For sources.

2.6.1 Method used – Pressures	mainly based on expert judgement and other data
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2.7 Threats		
a) Threat	b) Ranking	c) Pollution qualifier
	H = high importance M = medium importance L = low importance	
A07: use of biocides, hormones and chemicals	H	X
E03: Discharges	H	X
H01: Pollution to surface waters (limnic & terrestrial, marine & brackish)	H	X
D01: Roads, paths and railroads	M	
F03: Hunting and collection of wild animals (terrestrial)	L	

2.7.1 Method used – Threats	expert opinion
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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>)
Please refer to the United Kingdom assessment for this species.

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	number of map 10x10 km grid cells
	Population size is based on the number of occupied 10x10km occurring on Northern Ireland SAC Otter Rivers	
	b) Minimum	33
	Number of occupied 10x10km occurring on Northern Ireland SAC Otter Rivers 2007-2012 reporting period.	
	c) Maximum	33
		Number of occupied 10x10km occurring on Northern Ireland SAC Otter Lakes and Rivers 2007-2012 reporting period.
3.1.2 Method used	Estimate based on partial data with some extrapolation and/or modelling	
3.1.3 Trend of population size within the network (short-term trend)	stable	
	Common Standards Monitoring of the Otter population on five Otter SAC's in the periods 2001-2006 and 2007-2012 showed a 18% increase in recorded presence between these periods. This some what supports the general short term trend increase as described in 2.4.7. However it	

	should be noted that the CSM undertaken in 2010 was during a prolonged very dry period, this coupled with the surveyors greater experience and familiarity of the rivers may have influenced the results. Due to the uncertainty of the preceived increase and lack of long term data the SAC population is assessed as being stable.
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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		M			Y		Y			Y	
4.1: Restoring/improving water quality	Y			Y		H			Y	Y	Y	Y		Y	
4.2: Restoring/improving the hydrological regime	Y			Y		H			Y	Y	Y	Y		Y	
4.3: Managing water abstraction	Y			Y		H			Y	Y	Y	Y		Y	
6.1: Establish protected areas/sites	Y			Y		H	Y				Y	Y			
6.3: Legal protection of habitats and species	Y			Y		H	Y			Y	Y	Y			

7.2: Regulation/ Management of fishery in limnic systems	Y	Y		Y		H			Y	Y		Y		Y	
7.4: Specific single species or species group management measures	Y	Y		Y		H			Y	Y	Y				Y

7.4 Species Action Plan (Priority Species). See 2.2. ASSI and SAC management (MOSS).
 6.3 Designation of SACs and ASSIs. Habitats Directive and Conservation (Natural Habitats...) Regulations.
 4.1 Various NI legislation/Regulations e.g. Dangerous substances, UWWT, Nitrates, Environment Order and PPC.
 4.2 Rivers Agency and the Water Framework Directive.
 7.2 Management of fisheries, DCAL.
 2.0 Northern Ireland Countryside Management Schemes, with habitat management plans specifying how best to contribute to conservation of priority habitats and species. DARD and European Agricultural fund for Rural Development.