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:

S1213 - Common frog (*Rana temporaria*)

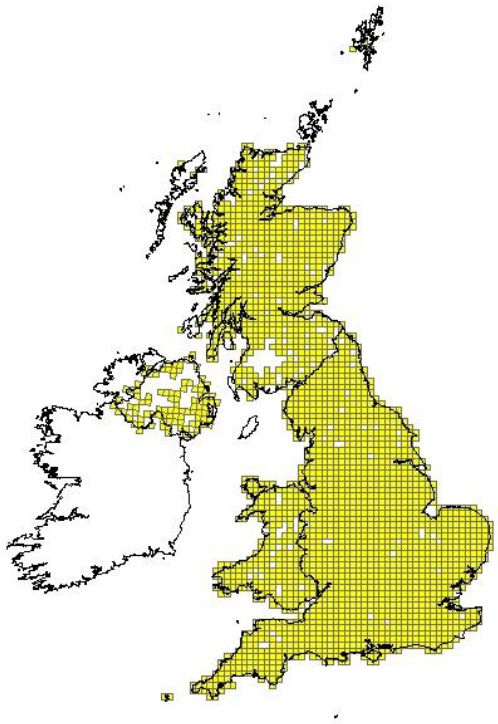
IMPORTANT NOTE – PLEASE READ

- 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 **Natural England** and refers only to the state of the habitat/species in **England** - 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

Field name	*Brief explanations*	
0.2 Species	**0.2.1 Species code**	**S1213**
	0.2.2 Species scientific name	***Rana temporaria***
	0.2.3 Alternative species scientific name Optional	
	0.2.4 Common name Optional	**Common frog**

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**
	The records used to calculate current range in England have been collated from a wide range of sources and most are not from comprehensive surveys. On this basis, data quality is moderate at best
1.1.3 Year or period	**1976-2012**
	Note: Pre-2007 records have been used as survey effort between 2007 - 2012 was insufficient and available data are not robust. A 36 year reporting period (1970-2006) was used for the 2007 Article 17 report - similarly, a 36 year period (1976-2012) has also been used for this

	reporting round
1.1.4 Additional distribution map	**False**
1.1.5 Range map	

2.1 Biogeographical region & marine regions	**ATL**
2.2 Published sources	**"ARNOLD, H.R. 1995. Atlas of amphibians and reptiles in Britain. ITE Research Publication No.10. HMSO, London.** **BEEBEE, T.J.C. 1997. Changes in dewpond numbers and amphibian diversity over 20 years on chalk downland in Sussex, England. Biological Conservation 81: 215-219.** **BEEBEE, T.J.C. 2007. Thirty years of garden ponds. Herpetological Bulletin 99: 23 – 28.** **BEEBEE, T.J.C. & GRIFFITHS, R.A. 2000. Amphibians and Reptiles: A Natural History of the British Herpetofauna. The New Naturalist series. HarperCollins, London.** **BIGGS, J., WILLIAMS, P., WHITFIELD, M., NICOLET, P. & WEATHERBY, A. 2005. 15 years of pond assessment in Britain: results and lessons learned from the work of Pond Conservation. Aquatic Conservation - Marine and Freshwater Ecosystems, 15: 693-714.** **BOOTHBY, J. 1997. Ponds and other small water-bodies in North-West England: an audit. In: BOOTHBY, J (Ed.) 1997. British pond landscapes. Proceedings of the UK conference of the Pondlife Project held at University College, Chester, 7th – 9th September 1997. PondLife Project, Liverpool.** **COOKE, A.S. 1972. Indications of recent changes in status of the British Isles of the frog Rana temporaria and the toad Bufo bufo. Journal of Zoology 167: 161-178.** **COOKE, A.S., & ARNOLD, H.R. 1982. National changes in status of the commoner British amphibians and reptiles before 1974. British Journal of Herpetology 6: 206-207.** **COOKE, A.S. & SCORGIE, H.R.A. 1983. The status of the commoner amphibians and reptiles in Britain. Focus on Nature Conservation No. 3, Nature Conservancy Council, Peterborough.** **EUROPEAN HABITATS FORUM. 2006. Towards European Biodiversity Monitoring. Assessment, monitoring and reporting of conservation status of European habitats and species. Wien, Cambridge, Bruxelles.**

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GLEED-OWEN, C, BUCKLEY, J, CONEYBEER, J, GENT, T, MCCRACKEN, M, MOULTON, N, & WRIGHT, D. 2005. Costed plans and options for herpetofauna surveillance and monitoring. English Nature Research Report No. 663, English Nature, Peterborough.

GRIFFITHS, R.A., RAPER, S.J., & BRADY, L.D. 1996. Evaluation of a standard method for surveying common frogs (Rana temporaria) and newts (Triturus cristatus, T. helveticus and T. vulgaris). JNCC Report No. 259. Joint Nature Conservation Committee, Peterborough.

HILTON-BROWN, D. & OLDHAM, R.S. 1991. The status of the widespread amphibians and reptiles in Britain, 1990, and changes during the 1980s. Nature Conservancy Council Contract Survey No. 131. Nature Conservancy Council, Peterborough.

HITCHINGS, S.P. & BEEBEE, T.J.C. 1997. Genetic substructuring as a result of barriers to gene flow in urban Rana temporaria (common frog) populations: implications for biodiversity conservation. Heredity 79: 117-127.

LANGTON, T.E.S., BECKETT, C.L. & DUNSMORE, I. 1993. UK herpetofauna: a review of British herpetofauna populations in a wider context. Report 99F2AO69 to Joint Nature Conservation Committee. Joint Nature Conservation Committee, Peterborough.

SAVAGE, R.M. 1961. The Ecology and Life History of the Common Frog (Rana temporaria). Pitman, London.

SEWELL, D., BEEBEE, T.J.C. & GRIFFITHS, R.A. 2010. Optimising biodiversity assessments by volunteers: the application of occupancy modelling to large-scale amphibian surveys. Biological Conservation 143: 2102 – 2110.

SWAN, M.J.S. & OLDHAM, R.S. 1989. Amphibian communities: final report. Nature Conservancy Council, Peterborough.

SWAN, M.J.S. & OLDHAM, R.S. 1993a. Herptile sites volume 1: national amphibian survey final report. English Nature Research Report No. 38. English Nature, Peterborough.

WILKINSON, J.P. & ARNELL, A.P. 2011. NARRS Report 2007-2009: Interim Results of the UK National Amphibian and Reptile Recording Scheme Widespread Species Surveys. ARC Research Report 11/01, Amphibian and Reptile Conservation, Bournemouth.

WILKINSON, J.P. & ARNELL, A.P. 2013. NARRS Report 2007-2012: Establishing the Baseline. ARC Research Report 13/01, Amphibian and Reptile Conservation, Bournemouth.

	WILLIAMS, P., BIGGS, J., CROWE, A., MURPHY, J., NICOLET, P., WEATHERBY, A. & DUNBAR, M. 2010. Countryside Survey: ponds report from 2007. Technical Report No. 7/07 Pond Conservation and NERC/Centre for Ecology and Hydrology (CEH Project Number: C03259). **The Amphibian & Reptile Conservation Trust: Rare Species Database and Reptile and Amphibian Dataset (provided via the NBN Gateway)"**

2.3 Range		
2.3.1 Surface area Range		
2.3.2 Method used Surface area of Range	**Estimate based on partial data with some extrapolation and/or modelling**	
	The records used to calculate current range in England have been collated from a wide range of sources and most are not from comprehensive surveys. On this basis, data quality is moderate at best	
2.3.3 Short-term trend Period		
2.3.4 Short term trend Trend direction		
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**	
	b) Minimum	
	c) Maximum	
2.4.2 Population size estimation (using population unit other than individuals) Optional *(if 2.4.1 filled in)*	**a) Unit**	**number of map 10x10 km grid cells**
	There are no accurate population estimates for this species. A surrogate of occupied 10-km squares has therefore been reported for this purpose (2149 squares were occupied in 2007, the 2012 range map will be used to calculate the 2013 figure)	
	b) Minimum	**1375**

	c) Maximum	**1375**
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	**1976-2012**	
	Pre-2007 records have been used as survey effort between 2007 -2012 was insufficient and available data are not robust. A 36 year reporting period (1970-2006) was used for the 2007 Article 17 report - similarly, a 36 year period (1976-2012) has also been used for this reporting round	
2.4.5 Method used Population size	**Estimate based on partial data with some extrapolation and/or modelling**	
	Survey effort incomplete and not robust	
2.4.6 Short-term trend Period	**2001-2012**	
	Short-term trends based on expert opinion only. However, a first baseline has been produced by NARRS sampling between 2007-2012 (Wilkinson & Arnell 2013)	
2.4.7 Short-term trend Trend direction	**stable**	
	Short-term trends based on expert opinion only. However, a first baseline has been produced by NARRS sampling between 2007-2012 (Wilkinson & Arnell 2013)	
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 expert opinion with no or minimal sampling**	
	Short-term trends based on expert opinion only. However, a first baseline has been produced by NARRS sampling between 2007-2012 (Wilkinson & Arnell 2013)	

2.4.10 Long-term trend – Period	**1989-2012**	
	Long-term trends based on expert opinion only. However, a first baseline has been produced by NARRS sampling between 2007-2012 (Wilkinson & Arnell 2013)	
2.4.11 Long-term trend Trend direction	**stable**	
	Long-term trends based on expert opinion only. However, a first baseline has been produced by NARRS sampling between 2007-2012 (Wilkinson & Arnell 2013)	
2.4.12 Long-term trend Magnitude Optional	**a) Minimum**	
	b) Maximum	
	c) Confidence interval	
2.4.13 Long term trend Method used	**1**	
	Long-term trends based on expert opinion only. However, a first baseline has been produced by NARRS sampling between 2007-2012 (Wilkinson & Arnell 2013)	
2.4.14 Favourable reference population	**a) Number of individuals/agreed exceptions/other units**	
	b) Operator	
	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**
	b) Improved knowledge/more	**False**

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

2.5 Habitat for the species		
2.5.1 Area estimation	**0**	
	Extent of common frog habitat in England unknown	
2.5.2 Year or period		
2.5.3 Method used Habitat for the species	**Absent data**	
	Extent and quality of common frog habitat in England unknown	
2.5.4 Quality of the habitat	**a) Habitat quality**	**Unknown**
	Quality of common frog habitat in England unknown	
	b) Assessment method	**Quality of habitat unknown**
	Quality of common frog habitat in England unknown	
2.5.5 Short-term trend Period	**2001-2012**	
	Short-term trends in extent and quality of habitat unknown	
2.5.6 Short-term trend Trend direction	**unknown**	
	Short-term trends in extent and quality of habitat unknown	
2.5.7 Long-term trend Period	**1989-2012**	
	Long-term trends in extent and quality of habitat unknown	
2.5.8 Long-term trend Trend direction	**unknown**	
	Long-term trends in extent and quality of habitat unknown	
2.5.9 Area of suitable habitat for the species	**a) Value in km²**	**0**
	Extent of suitable common frog habitat in England unknown	
	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**

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	
H01: Pollution to surface waters (limnic & terrestrial, marine & brackish)	H	ANOPTX
J02: human induced changes in hydraulic conditions	H	
K02: Biocenotic evolution, succession	H	
A07: use of biocides, hormones and chemicals	M	OTX
A08: Fertilisation	M	NPX
A10: Restructuring agricultural land holding	M	
B02: Forest and Plantation management & use	M	
D01: Roads, paths and railroads	M	X
E01: Urbanised areas, human habitation	M	
E02: Industrial or commercial areas	M	
H04: Air pollution, air-borne pollutants	M	X
I01: invasive non-native species	M	
J03: Other ecosystem modifications	M	
K03: Interspecific faunal relations	M	
C01: Mining and quarrying	L	
F01: Marine and Freshwater Aquaculture	L	

2.6.1 Method used – Pressures	**mainly based on expert judgement and other data**

2.7 Threats		
a) Threat	**b) Ranking**	**c) Pollution qualifier**

	H = high importance M = medium importance L = low importance	
A02: modification of cultivation practices	H	
H01: Pollution to surface waters (limnic & terrestrial, marine & brackish)	H	ANOPTX
J02: human induced changes in hydraulic conditions	H	
K02: Biocenotic evolution, succession	H	
A07: use of biocides, hormones and chemicals	M	OTX
A08: Fertilisation	M	NPX
A10: Restructuring agricultural land holding	M	
B02: Forest and Plantation management & use	M	
D01: Roads, paths and railroads	M	X
E01: Urbanised areas, human habitation	M	
E02: Industrial or commercial areas	M	
H04: Air pollution, air-borne pollutants	M	X
I01: invasive non-native species	M	
J03: Other ecosystem modifications	M	
K03: Interspecific faunal relations	M	
M01: Changes in abiotic conditions	M	
M02: Changes in biotic conditions	M	
C01: Mining and quarrying	L	
F01: Marine and Freshwater Aquaculture	L	

2.7.1 Method used – Threats	**expert opinion**

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)*
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**	
	b) Minimum	
	c) Maximum	
3.1.2 Method used		
3.1.3 Trend of population size within the network (short-term trend)		

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