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

Fourth Report by the United Kingdom under Article 17

on the implementation of the Directive
from January 2013 to December 2018

Supporting documentation for the
conservation status assessment for the species:

S1213 - Common frog (*Rana temporaria*)

NORTHERN IRELAND

IMPORTANT NOTE - PLEASE READ

- The information in this document is a country-level contribution to the UK Report on the conservation status of this species, submitted to the European Commission as part of the 2019 UK Reporting under Article 17 of the EU Habitats Directive.
- The 2019 Article 17 UK Approach document provides details on how this supporting information was used to produce the UK Report.
- The UK Report on the conservation status of this species is provided in a separate document.
- The reporting fields and options used are aligned to those set out in the European Commission guidance.
- Explanatory notes (where provided) by the country are included at the end. These provide an audit trail of relevant supporting information.
- Some of the reporting fields have been left blank because either: (i) there was insufficient information to complete the field; (ii) completion of the field was not obligatory; (iii) the field was not relevant to this species (section 12 Natura 2000 coverage for Annex II species) and/or (iv) the field was only relevant at UK-level (sections 9 Future prospects and 10 Conclusions).
- For technical reasons, the country-level future trends for Range, Population and Habitat for the species are only available in a separate spreadsheet that contains all the country-level supporting information.
- The country-level reporting information for all habitats and species is also available in spreadsheet format.

Visit the JNCC website, https://jncc.gov.uk/article17, for further information on UK Article 17 reporting.

Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

NATIONAL LEVEL

1. General information

1.1 Member State	**UK (Northern Ireland information only)**
1.2 Species code	**1213**
1.3 Species scientific name	**Rana temporaria**
1.4 Alternative species scientific name	
1.5 Common name (in national language)	Common frog

2. Maps

2.1 Sensitive species	No
2.2 Year or period	1994-2018
2.3 Distribution map	Yes
2.4 Distribution map Method used	Based mainly on extrapolation from a limited amount of data
2.5 Additional maps	No

3. Information related to Annex V Species (Art. 14)

3.1 Is the species taken in the wild/exploited?	No	
3.2 Which of the measures in Art. 14 have been taken?	a) regulations regarding access to property	No
	b) temporary or local prohibition of the taking of specimens in the wild and exploitation	No
	c) regulation of the periods and/or methods of taking specimens	No
	d) application of hunting and fishing rules which take account of the conservation of such populations	No
	e) establishment of a system of licences for taking specimens or of quotas	No
	f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens	No
	g) breeding in captivity of animal species as well as artificial propagation of plant species	No
	h) other measures	No

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3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

a) Unit

b) Statistics/ quantity taken	Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period					
	Season/ year 1	Season/ year 2	Season/ year 3	Season/ year 4	Season/ year 5	Season/ year 6
Min. (raw, ie. not rounded)						
Max. (raw, ie. not rounded)						
Unknown	No	No	No	No	No	No

3.4. Hunting bag or quantity taken in the wild Method used

3.5. Additional information

BIOGEOGRAPHICAL LEVEL

4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

Atlantic (ATL)

4.2 Sources of information

Dingerkus, S.K., Stone, R.E., Wilkinson, J.W., Marnell, M. & Reid, N. (2011) Developing a methodology for the National Frog Survey of Ireland: a pilot study in Co. Mayo. Irish Naturalists' Journal 31(2): 85-90.
Marnell, F. (1998) Discriminant analysis of the terrestrial and aquatic habitat determinants of the smooth newt (Triturus vulgaris) and the common frog (Rana temporaria) in Ireland. J. Zoology 244: 1-6
Marnell, F. (1999) The distribution of the Common Frog Rana temporaria L. In Ireland. Bulletin of the Irish Biogeographical Society 23: 60-70
Minchin, D., (2007) A checklist of alien and cryptogenic aquatic species in Ireland, REABIC Aquatic Invasions Journal 2(4):341-366
Eds. Procter, D.A., Baxter, J.M., Crick, H.P.Q., Mortimer, D., Mulholland, F Walmsley, C.A. (2010) Biodiversity and Climate Change in the UK. IACCF JNCC, Peterborough. pp.16.
http://jncc.defra.gov.uk/PDF/Pub10_Bio_&_CC_IACCF_2010_Web.pdf
Reid, N., Dingerkus, S.K., Stone, Pietravalle, S., Kelly, R., R.E., Buckley, J., Beebee, T.J.C. & Wilkinson, J.W. (2012) National Frog Survey of Ireland 2010/11. Irish Wildlife Manuals, No. 58. National Parks and Wildlife Service, Department of Arts, Hertiage and the Gaeltacht, Dublin, Ireland
Reid, N., Dingerkus, S.K., Stone, Pietravalle, S., Kelly, R., R.E., Buckley, J., Beebee, T.J.C., Marnell, F. & Wilkinson, J.W. (2013) Population enumeration and assessing conservation status in a widespread amphibian: A case study of Rana temporaria in Ireland. Journal of Animal Conservation 10.1111/acv.12022.

5. Range

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5.1 Surface area (km²)		
5.2 Short-term trend Period		
5.3 Short-term trend Direction	Stable (0)	
5.4 Short-term trend Magnitude	a) Minimum	b) Maximum
5.5 Short-term trend Method used		
5.6 Long-term trend Period		
5.7 Long-term trend Direction		
5.8 Long-term trend Magnitude	a) Minimum	b) Maximum
5.9 Long-term trend Method used		
5.10 Favourable reference range	a) Area (km²) b) Operator c) Unknown d) Method	
5.11 Change and reason for change in surface area of range	No change The change is mainly due to:	
5.12 Additional information		

6. Population

6.1 Year or period	2013-2018	
6.2 Population size (in reporting unit)	a) Unit	number of map 1x1 km grid cells (grids1x1)
	b) Minimum	
	c) Maximum	
	d) Best single value	498
6.3 Type of estimate	Minimum	
6.4 Additional population size (using population unit other than reporting unit)	a) Unit b) Minimum c) Maximum d) Best single value	
6.5 Type of estimate		
6.6 Population size Method used	Based mainly on extrapolation from a limited amount of data	
6.7 Short-term trend Period	2013-2018	
6.8 Short-term trend Direction	Stable (0)	
6.9 Short-term trend Magnitude	a) Minimum b) Maximum c) Confidence interval	
6.10 Short-term trend Method used	Based mainly on expert opinion with very limited data	
6.11 Long-term trend Period		
6.12 Long-term trend Direction		

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6.13 Long-term trend Magnitude	a) Minimum b) Maximum c) Confidence interval
6.14 Long-term trend Method used	
6.15 Favourable reference population (using the unit in 6.2 or 6.4)	a) Population size b) Operator c) Unknown d) Method
6.16 Change and reason for change in population size	No change The change is mainly due to:
6.17 Additional information	

7. Habitat for the species

7.1 Sufficiency of area and quality of occupied habitat	a) Are area and quality of occupied habitat sufficient (to maintain the species at FCS)?	Yes
	b) Is there a sufficiently large area of occupied AND unoccupied habitat of suitable quality (to maintain the species at FCS)?	
7.2 Sufficiency of area and quality of occupied habitat Method used	Based mainly on expert opinion with very limited data	
7.3 Short-term trend Period	2007-2018	
7.4 Short-term trend Direction	Stable (0)	
7.5 Short-term trend Method used	Based mainly on expert opinion with very limited data	
7.6 Long-term trend Period		
7.7 Long-term trend Direction		
7.8 Long-term trend Method used		
7.9 Additional information		

8. Main pressures and threats

8.1 Characterisation of pressures/threats

Pressure	Ranking
Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05)	H
Drainage for use as agricultural land (A31)	H
Modification of hydrological conditions, or physical alteration of water bodies and drainage for forestry (including dams) (B27)	M
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M

Other invasive alien species (other then species of Union concern) (I02)	H
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	H
Physical alteration of water bodies (K05)	H
Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02)	M
Interspecific relations (competition, predation, parasitism, pathogens) (L06)	M

Threat	Ranking
Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05)	H
Drainage for use as agricultural land (A31)	H
Modification of hydrological conditions, or physical alteration of water bodies and drainage for forestry (including dams) (B27)	M
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
Other invasive alien species (other then species of Union concern) (I02)	M
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	H
Physical alteration of water bodies (K05)	M
Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02)	M
Interspecific relations (competition, predation, parasitism, pathogens) (L06)	H
Droughts and decreases in precipitation due to climate change (N02)	H

8.2 Sources of information

8.3 Additional information

9. Conservation measures

9.1 Status of measures	a) Are measures needed?	Yes
	b) Indicate the status of measures	Measures identified and taken
9.2 Main purpose of the measures taken		Maintain the current range, population and/or habitat for the species
9.3 Location of the measures taken		Both inside and outside Natura 2000
9.4 Response to the measures		Medium-term results (within the next two reporting periods, 2019-2030)

9.5 List of main conservation measures

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9.6 Additional information	

10. Future prospects

10.1 Future prospects of parameters	a) Range b) Population c) Habitat of the species
10.2 Additional information	

11. Conclusions

11.1. Range	
11.2. Population	
11.3. Habitat for the species	
11.4. Future prospects	
11.5 Overall assessment of Conservation Status	
11.6 Overall trend in Conservation Status	
11.7 Change and reasons for change in conservation status and conservation status trend	a) Overall assessment of conservation status No change The change is mainly due to: b) Overall trend in conservation status No change The change is mainly due to:
11.8 Additional information	

12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)	a) Unit b) Minimum c) Maximum d) Best single value
12.2 Type of estimate	
12.3 Population size inside the network Method used	
12.4 Short-term trend of population size within the network Direction	
12.5 Short-term trend of population size within the network Method used	

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12.6 Additional information

13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

Distribution Map

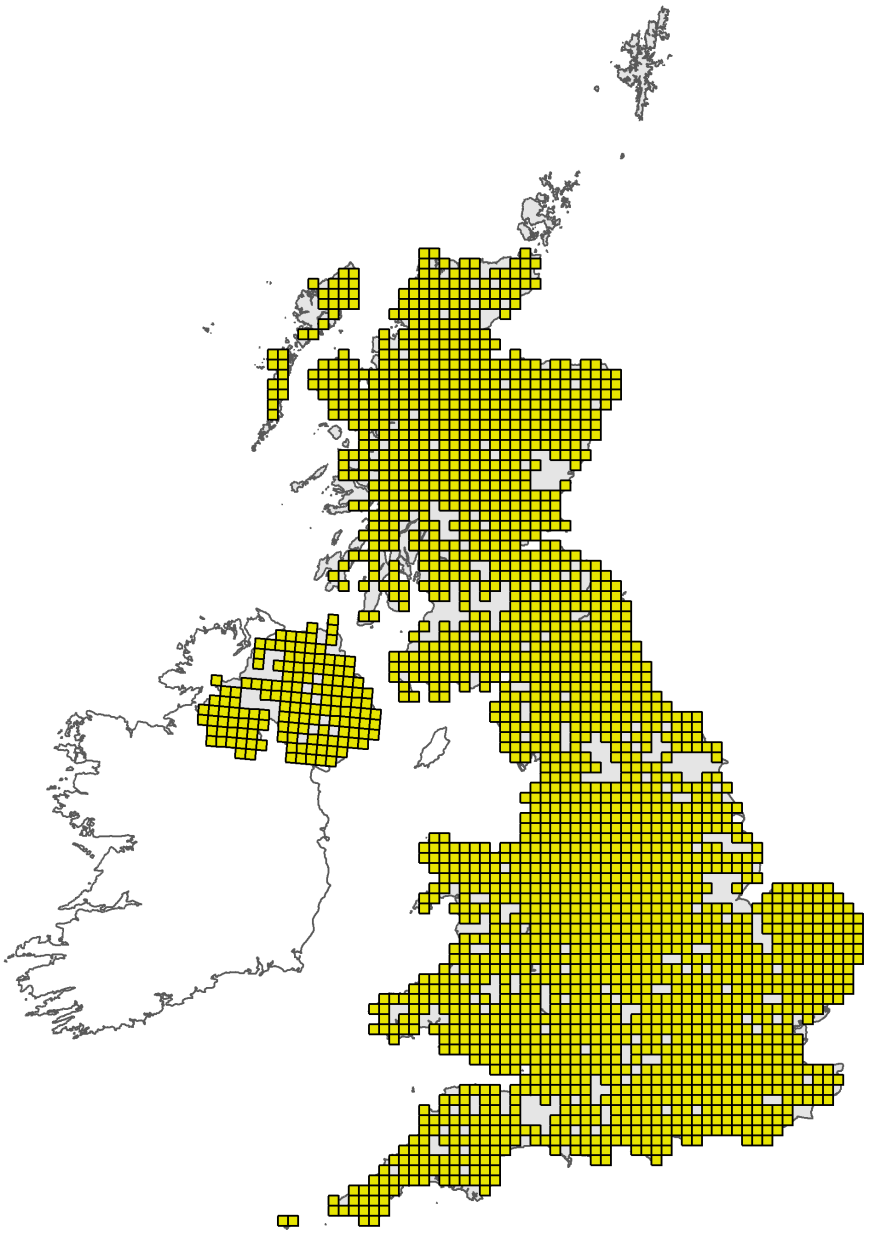

Figure 1: UK distribution map for S1213 - Common frog (*Rana temporaria*). Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

The 10km grid square distribution map is based on available species records within the current reporting period. For further details see the 2019 Article 17 UK Approach document.

Range Map

Figure 2: UK range map for S1213 - Common frog (*Rana temporaria*). Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

The range map has been produced by applying a bespoke range mapping tool for Article 17 reporting (produced by JNCC) to the 10km grid square distribution map presented in Figure 1. The alpha value for this species was 35km. For further details see the 2019 Article 17 UK Approach document.

Explanatory Notes

Species name: Rana temporaria (1213) Region code: ATL

Field label	Note
5.3 Short term trend; Direction	Although the species is undoubtedly under-recorded and there is currently no systematic monitoring in place, there are still numerous records of Common Frog within all suitable habitats in NI. Range covers virtually all of NI and is assessed as stable.
5.11 Change and reason for change in surface area of range	Range covers virtually all of NI and there is no evidence of a decline in the species. Therefore 'no' change reported.
6.2 Population size	Population estimated at 498 occupied 1km grid squares, but the species is likely to be under-recorded, so this should be regarded as a minimum estimate.
6.8 Short term trend; Direction	Although there is currently no systematic monitoring data available to provide an defintive assessment of trend, the species is widepsread across NI - hence, the short-term population trend for Common Frog has been reported as 'stable', but based upon expert opinion with very limited data.
6.16 Change and reason for change in population size	'no' genuine change in population size; although no systematic monitoring is currently in place, Common Frog records are still frequent and there has been no evidence of a decline in numbers.
7.1 Sufficiency of area and quality of occupied habitat	Work in Ireland (reid et al, 2010/11) has shown that Common Frog is particularly associated with farm ponds and ditches, which are still abundant in NI. In addition, in the absence of common frog habitat surveys here, other data (e.g. invasive species information, drainage and water quality) were used as proxies. Water quality was assessed using data on pollution incidents, industrial consents, abstraction licensing and surface water body monitoring sites, for river segments and river water bodies within the catchments in which common frog were recorded as present in. This data was last updated between August and November 2017.
7.4 Short term trend; Direction	The short-term trend direction for the habitat for the species has been reported as 'stable'. However, because there is no systematic monitoring data available to accurately interpret trends of habitat for the species, this is described as Based mainly on expert opinion with very limited data.
7.5 Short term trend; Method used	See 7.4
10.1 Future prospects of parameters	The future prospects for the range and population have been reported as 'Overall stable'. Although there is no systematic monitoring data available to accurately interpret range trends, incidental records confirm that the species is very widely distributed across NI and there has been no evidence of a decline in range or population numbers.