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:

S1166 - Great crested newt (*Triturus cristatus*)

ENGLAND

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 (England information only)**
1.2 Species code	**1166**
1.3 Species scientific name	**Triturus cristatus**
1.4 Alternative species scientific name	
1.5 Common name (in national language)	Great crested newt

2. Maps

2.1 Sensitive species	No
2.2 Year or period	1982-2018
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

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5. Range

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	The records used to calculate current range have been collated from a wide range of sources. They are not from a comprehensive survey across the country, but with an increase in effort we have a greater number of records this reporting period. On this basis, data quality is moderate but it is considered that range remains relatively stable.	

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	21600
	c) Maximum	44500

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	d) Best single value
6.3 Type of estimate	Best estimate
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 extrapolation from a limited amount of data
6.11 Long-term trend Period	
6.12 Long-term trend Direction	
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)?	No
	b) Is there a sufficiently large area of occupied AND unoccupied habitat of suitable quality (to maintain the species at FCS)?	No
7.2 Sufficiency of area and quality of occupied habitat Method used	Based mainly on extrapolation from a limited amount of data	
7.3 Short-term trend Period	2007-2018	
7.4 Short-term trend Direction	Decreasing (-)	
7.5 Short-term trend Method used	Based mainly on extrapolation from a limited amount of data	

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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)	M
Agricultural activities generating point source pollution to surface or ground waters (A25)	H
Conversion from other land uses to housing, settlement or recreational areas (excluding drainage and modification of coastline, estuary and coastal conditions) (F01)	H
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	H
Modification of hydrological flow (K04)	H
Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02)	H
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
Conversion from other land uses to commercial / industrial areas (excluding drainage and modification of coastline, estuary and coastal conditions) (F03)	M
Change of habitat location, size, and / or quality due to climate change (N05)	M

Threat	Ranking
Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05)	M
Agricultural activities generating point source pollution to surface or ground waters (A25)	M
Conversion from other land uses to housing, settlement or recreational areas (excluding drainage and modification of coastline, estuary and coastal conditions) (F01)	H
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	H
Interspecific relations (competition, predation, parasitism, pathogens) (L06)	H
Modification of hydrological flow (K04)	M

Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02)	H
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
Conversion from other land uses to commercial / industrial areas (excluding drainage and modification of coastline, estuary and coastal conditions) (F03)	H
Change of habitat location, size, and / or quality due to climate change (N05)	M

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

Increase the population size and/or improve population dynamics (improve reproduction success, reduce mortality, improve age/sex structure) (related to 'Population')

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

Restore small landscape features on agricultural land (CA02)
Manage the use of natural fertilisers and chemicals in agricultural (plant and animal) production (CA09)
Manage conversion of land for construction and development of infrastructure (CF01)
Reduce impact of mixed source pollution (CJ01)
Early detection and rapid eradication of invasive alien species of Union concern (CI01)
Reduce/eliminate point pollution to surface or ground waters from agricultural activities (CA10)
Restore habitats impacted by multi-purpose hydrological changes (CJ03)
Management of habitats (others than agriculture and forest) to slow, stop or reverse natural processes (CL01)
Reduce impact of transport operation and infrastructure (CE01)
Implement climate change adaptation measures (CN02)

9.6 Additional information

Species modelling, conservation planning, data collection and licensing reform is underway at strategic levels in some parts of the country, which aims to improve outcomes for the species compared to the current approach which has mixed results (Lewis et al., 2017). However, development is not the only pressure or source of impact on the species (Foster et al. 2016) so an increase in agri-environment options for GCN such as pond creation is needed as well as improvements to the protected site series for GCN. Progress anticipated to be made towards the following measures primarily - CF01, CJ03, CE01.

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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	number of map 1x1 km grid cells (grids1x1)
12.2 Type of estimate		
12.3 Population size inside the network Method used	Insufficient or no data available	
12.4 Short-term trend of population size within the network Direction	Unknown (x)	
12.5 Short-term trend of population size within the network Method used	Insufficient or no data available	
12.6 Additional information	Great crested newts are monitored within protected sites however, there is not enough information to record populations or any changes in trend for this species. Many SAC sites, including GCN SACs, are in unfavourable condition and require action to mitigate against pressures and threats (Natural England, 2016.)	

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13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

Distribution Map

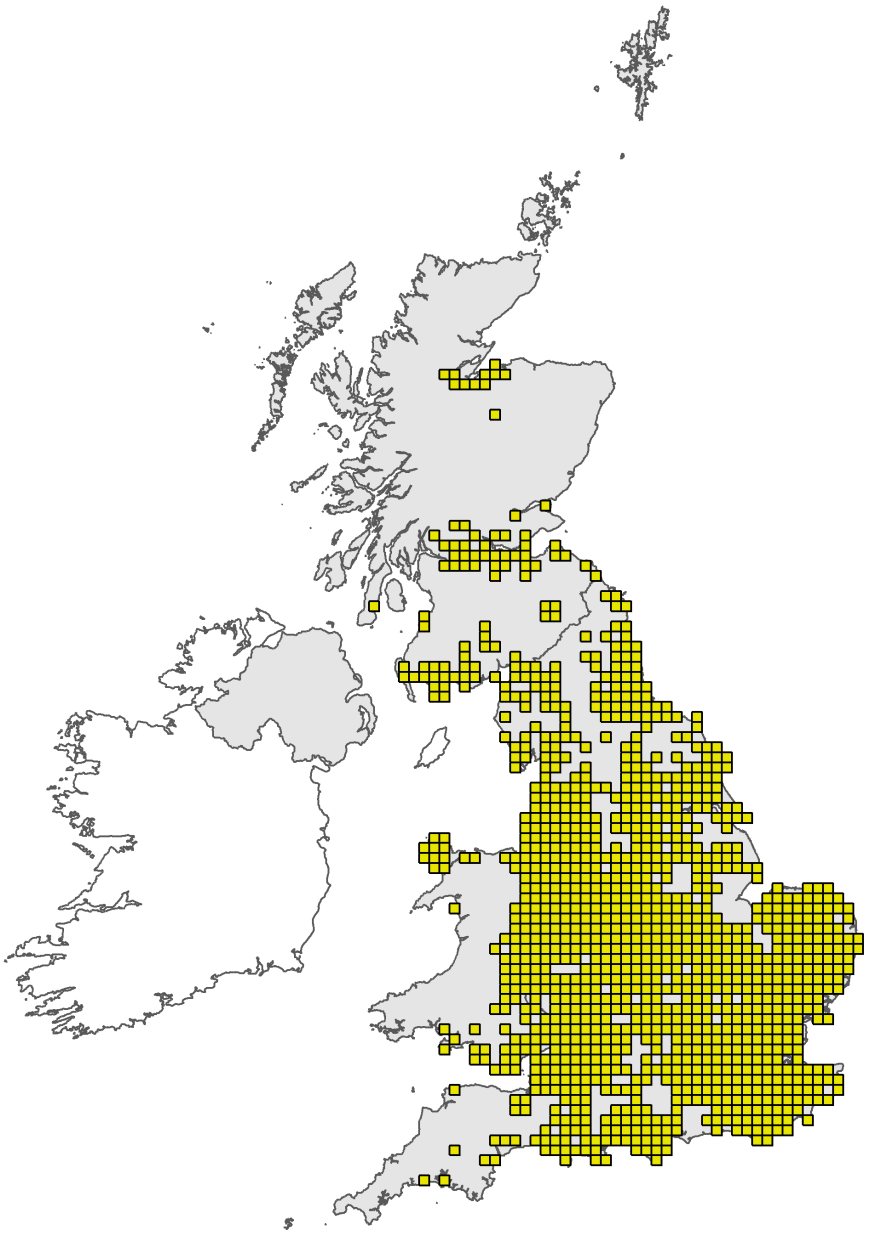

Figure 1: UK distribution map for S1166 - Great crested newt (*Triturus cristatus*). Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

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 S1166 - Great crested newt (*Triturus cristatus*). 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 34km. For further details see the 2019 Article 17 UK Approach document.

Explanatory Notes

Species name: Triturus cristatus (1166)

Field label	Note
2.4 Distribution map; Method used	Recent country-wide occupancy data is not available for this species in England. Within this reporting period additional data has been collected via the Evidence Enhancement Programme (Reason, 2013 & Reason, 2014), PondNet (Ewald et al., 2018) and the Strategic Licensing programme (Natural England, 2018). A 36 year reporting period was used for the 2007 and 2013 Article 17 report - similarly, a 36 year period (1982-2018) has also been used for this reporting round.

Species name: Triturus cristatus (1166) Region code: ATL

Field label	Note
6.2 Population size	Best estimate from PondNet surveillance (Ewald et al., 2018; Ewald, 2018) is that 16-33% of 1 km grid squares in England are occupied by great crested newts (+-8.5%). This calculation is only from 4 years of surveys, a longer monitoring period is required to have more confidence in estimates and the ability to detect change.
6.8 Short term trend; Direction	No robust short-term trend data are available for the great crested newt in England for the period 2007-2018. PondNet results suggest that in the short term 1km square occpancy isn't changing, but need more data to be certain.
6.12 Long term trend; Direction	The long term population trend within the period of 1994-2018 is commonly thought to be one of declining GCN populations (e.g. Langton et al, 2001; Wilkinson et al, 2011).
7.1 Sufficiency of area and quality of occupied habitat	Not sufficent as detailed within the Favourable Conservation Status statement for the species in England (Natural England, 2017). At a national scale, this is primarily considering area of habitat but there is also evidence to suggest that habitat quality is not sufficient in many parts of the country. The 2007 Countryside Survey found that ponds in England were widely degraded with around 80% of ponds Poor or Very Poor quality (Williams et al 2010), with a number of pressures on small water bodies generally (Riley et al., 2018) as well as at GCN SAC sites (Natural England, 2015).
7.4 Short term trend; Direction	Since 2007, it is considered highly likely that habitat loss has continued to decline (Natural England, 2017).
10.1 Future prospects of parameters	A comprehensive and long-term national surveillance scheme is required to monitor species status in England, effectiveness of conservation mechanisms and detect changes in GCN populations. Continuing PondNet would improve power to detect change in occupancy - currently 81% power to detect 10% change in 1km square occupancy, increasing to 98% with a further two years of surveillance (at a 90% confidence level). Building upon the PondNet programme could help monitor trends in population, such as regular stratified sampling (counts) of populations. Looking ahead, a key risk for the species is Batrachochytrium salamandrivorans (Bsal) already present in England (in captivity) and its release into wild populations would have devestating impacts on GCN populations (Bates et al, 2018).