

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

**Second Report by the United Kingdom under
Article 17**

**on the implementation of the Directive
from January 2001 to December 2006**

Conservation status assessment for :

S1166: *Triturus cristatus* - Great crested newt

Please note that this is a section of the report. For the complete report visit <http://www.jncc.gov.uk/article17>

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S1166 *Triturus cristatus* Great crested newt

Audit trail compiled and edited by Joint Nature Conservation Committee, the Inter-Agency Herpetofauna Working Group and the Herpetofauna Conservation Trust

This document is an audit of the data and judgements on conservation status in the UK's report on the implementation of the Habitats Directive (January 2001 to December 2006) for this species. Superscript numbers accompanying the headings below, cross-reference to headings in the corresponding Annex B reporting form. This supporting information should be read in conjunction with the UK approach for species (see 'Assessing Conservation Status: UK Approach').

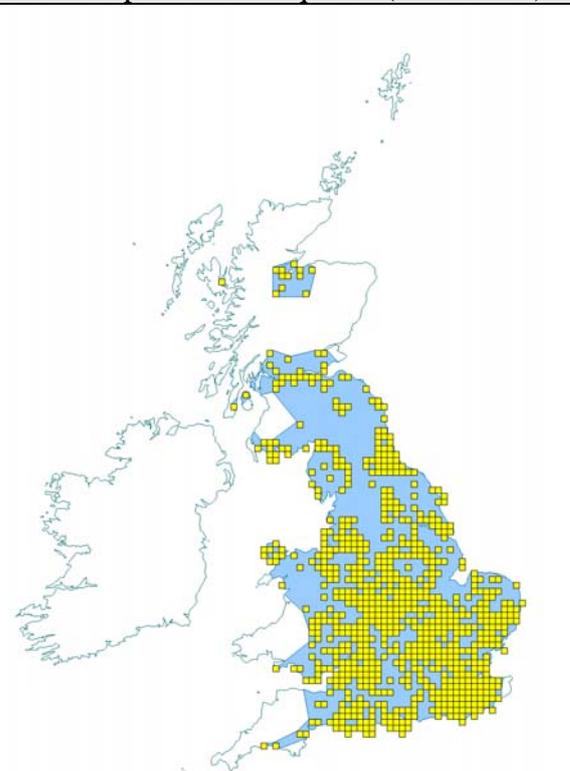
1. Range Information^{2,3}

Triturus cristatus is fairly widespread across Britain; it is widespread but local in Scotland, numerous locally in parts of lowland England and Wales, but absent or rare in Cornwall and Devon. It is absent from Northern Ireland.

1.1 Surface area of range^{2,3,1} 157,749km²

The above estimate was calculated within Alpha Hull software, using extent of occurrence as a proxy measure for range (as shown in the map below), at a resolution of 10 km. The value of alpha was set at 35 km to reflect the mobility of this species. The alpha hull (range area) was clipped to include terrestrial habitat only.

Map 1.1. Current extent of occurrence and occupied 10 km-squares (1980-2006)



Data sources provided in Section 6

1.2 Date of range determination^{2.3.2}

1980 – 2006

Although this species has been subject to relatively high survey effort, recent records are patchy and incomplete. For this reason, the ‘current area’ date-class accounts for all records collected from 1980 onwards. Although this is not ideal, it is thought to be more representative of current status than later date-classes, based on professional understanding of *T. cristatus* distribution.

1.3 Quality of range data^{2.3.3}

Moderate

The records used to calculate current range have been collated from a wide range of sources. They are not from a comprehensive survey. On this basis, data quality is moderate.

1.4 Range trend^{2.3.4} & Range trend magnitude^{2.3.5}

Stable

Measuring change in historic range is complicated by scarcity of early records. However, it appears that there have been losses of range at coarse scale (>5km level) in parts of Scotland. Losses of range at much smaller scale (<1km level) have likely occurred across much of the range of the species.

Since the Habitats Directive came into force in 1994, range is thought to have remained stable.

1.5 Range trend period^{2.3.6}

1994 – 2006

A comparison was made between ‘historic’ records dating from 1800-1979 and ‘current’ records dating from 1980-2006; it was felt that historic trends gave the best indication of conservation concern by including the period of greatest intensification.

1.6 Reasons for reported trend in range^{2.3.7}

Not applicable

1.7 Favourable reference range^{2.7.1}

157,749km²

The decision tree in Note 1 has been used as a guide in determining the favourable reference range estimate (see ‘Assessing Conservation Status: UK Approach’).

This species is widespread in the UK, and only minimal declines in range have occurred since the turn of the 19th Century. It can therefore be assumed that current range is sufficiently large and comprehensive to allow the long term survival of the species. Hence, the current estimate is a suitable baseline for the favourable reference value.

1.8 Range conclusion^{2.8}

Favourable

Current range is stable, and not less than the favourable reference range. Hence, at this coarse resolution, range has been assessed as Favourable.

2. Population of the species^{2.4}

2.1 Population estimate^{2.4.1}

75,000 populations

There are an estimated 75,000 populations in the UK. This estimate is based on pond numbers potentially suitable for the species as there has been no truly comprehensive survey of great crested newts in the UK. Since this species commonly occurs in metapopulations, in which individuals breed in, and disperse between, closely located ponds, the number of metapopulations will be smaller than 75,000.

2.2 Date of population estimate^{2.4.2}

2006

2.3 Method of population estimate^{2.4.3}

2 = extrapolation from surveys of part of the population, sampling

2.4 Quality of population data^{2.4.4}

Poor

The distribution data is patchy, and the estimate is based on a combination of extrapolation and expert opinion. Data quality is therefore considered poor.

2.5 Population trend^{2.4.5} & Population trend magnitude^{2.4.6}

Decreasing

Based on expert opinion, since the Directive came in force in 1994, the UK great crested newt population is thought to have declined by less than 5%.

2.6 Population trend period^{2.4.7}

1994 – 2006

2.7 Reasons for reported trend in population^{2.4.8}

3. Direct human influence (restoration, deterioration, destruction)

4. Indirect anthropo(zoo)genic influence

5. Natural processes

Declines have been attributed to habitat loss (ponds and terrestrial) resulting from agricultural intensification, development and drainage; habitat fragmentation, again resulting from agriculture and development; a reduction in suitable breeding sites following successional change; and the introduction of fish and wildfowl into once suitable habitat.

2.8 Justification of % thresholds for trends^{2.4.9}

Not applicable

2.9 Main pressures^{2.4.10}

100 cultivation

101 modification of cultivation practices

141 abandonment of pastoral systems

151 removal of hedges & copses

164 forestry clearance

390 mineral extraction activities not referred to above – specifically chalk, coal and clay extraction

400 urbanised areas, human habitation

410 industrial or commercial areas

500 communication networks

701 water pollution

800 landfill etc

853 management of water levels

910 silting up

920 drying out

952 eutrophication

965 predation

2.10 Threats^{2.4.11}

101 modification of cultivation practices

390 mineral extraction activities not referred to above – specifically chalk, clay and coal extraction

400 urbanised areas, human habitation

410 industrial or commercial areas

500 communication networks

800 landfill etc

853 management of water levels

910 silting up

920 drying out

965 predation

2.11 Favourable reference population^{2.7.2}

100,000 populations (Current is 25% below the favourable reference population)

The decision tree in Note 1 has been used as a guide in determining the favourable reference population estimate (see ‘Assessing Conservation Status: UK Approach’).

The great crested newt population has declined since the Habitat Directive came into force, but this decline has not exceeded 1% per year. Therefore, in accordance with the UK approach, the favourable reference population has been set at 25% greater than the current value, i.e. 100,000 populations. Although the UK Biodiversity Action Plan (BAP) target for this species by far exceeds this value at 200,000 populations, it is difficult to argue that this minimum value is not large enough to allow the long term survival of the species.

2.12 Population conclusion^{2.8}

Unfavourable – Inadequate and deteriorating

The minimum favourable reference population is greater than the current estimate, but not by a factor of more than 25%. The assessment is therefore Unfavourable – Inadequate, and deteriorating to reflect current downward trends.

3. Habitat for the species in the Biogeographic region or sea^{2.5}

This species shows preference for shallow edged ponds, with abundant vegetation and no fish. Such ponds may be located within farmland, woodland, grasslands, dunes, quarries and brown-field sites, provided that local habitat structure is varied, and there are suitable ‘refuges’ available such as areas of scrub or woodland. Great crested newts need larger and

deeper ponds than most other UK amphibians. Connectivity between suitable ponds and associated terrestrial habitat is important to maintain metapopulation function.

3.1 Surface area of habitat^{2.5.2}

Unknown

Extensive modelling of *T. cristatus* habitat is currently being undertaken by the Joint Nature Conservation Committee, in association with Liverpool John Moores University. It is hoped that this will provide a detailed spatial estimate of *T. cristatus* habitat. However, the results of this are not yet available.

3.2 Date of estimation^{2.5.3}

Not applicable

3.3 Quality of data on habitat area^{2.5.4}

Poor

Although *T. cristatus* habitat has been well-documented, as yet, there is no area estimate relevant to this species.

3.4 Habitat trend^{2.5.5}

Unknown

Since the 1800s, there is likely to have been a major decline in *T. cristatus* habitat, attributed to agricultural intensification and development. Although this trend is thought to have slowed in recent years as a result of increased conservation action, since 1994, it is probable that *T. cristatus* habitat has continued to decline in both area and quality. The extent of this decline is unknown, however. The assessment is therefore given as unknown.

3.5 Habitat trend period^{2.5.6}

1994 – 2006

3.6 Reasons for reported trend in habitat^{2.5.7}

Not applicable

3.7 Suitable habitat for the species (in km²)^{2.7.3}

Unknown

3.8 Habitat conclusion^{2.8}

Unknown

The continued decline in both extent and quality of suitable habitat for this species lead to the conclusion that habitat for the great crested newt is not in favourable condition i.e. that it is insufficient to support the long term survival of the species. However, there is insufficient evidence to convincingly substantiate this. As more analyses and modelling is done the picture should become clearer.

4. Future Prospects^{2.6}

Good prospects

“Species is expected to survive and prosper.”

Agri-environment schemes are now better targeted and with good incentives, and should encourage habitat retention, enhancement and creation. Planning systems and associated mechanisms are now increasingly likely to recognise the presence of the species and avert adverse impacts, whilst ensuring compensation where there are some impacts. New emphasis on habitat creation in planning could, in theory, result in major gains.

General habitat creation schemes are now more likely to take *T. cristatus* into account. The Biodiversity Action Plan process alerts many to the requirements of the species. New legal duty (Nature Conservation (Scotland) Act 2004, NERC Act 2006) should mean that public bodies take greater account of the species. These positive comments are however heavily dependent on how well the mechanisms are implemented and it remains to be seen how much will be achieved in practice. In addition, even if these mechanisms are sufficiently implemented, it will take many years to compensate for the substantial historical population losses. Fish eradication is a specific issue which limits efforts to recover some large but declining populations.

It is difficult to report either that this species is “likely to survive and prosper”, or “struggle unless conditions change”. However, with the level of attention that this species receives both in terms of legislation and conservation action, for the foreseeable future at least, prospects are likely to be good, rather than poor.

4.1 Future prospects conclusion^{2.8} Favourable

5. Overall Conclusion^{2.8} Unfavourable – Inadequate

Table 5.1. Summary of conclusions

Parameter	Judgement	Grounds for Judgement (in accordance with Annex C)	Reliability*
Range	Favourable	Current range is stable and not smaller than the 'favourable reference range'	1
Population	Unfavourable – Inadequate and deteriorating	Any other combination Current population is below favourable reference population, but not by more than 25%	3
Habitat	Unknown	No or insufficient reliable information available	N/A
Future Prospects	Favourable	Main pressures and threats to the species not significant; species will remain viable [for the foreseeable future]	2
Overall Assessment	Unfavourable – Inadequate	One or more Unfavourable – Inadequate but no Unfavourable – Bad	2

*1=High, 2=Moderate, 3=Low

High – Expert opinion is that the concluding judgement accurately reflects the current situation based on a professional understanding of the species. For range, population, and habitat, quality of data used to establish the current estimate has been identified as “good”; data used to inform trends is comprehensive and up to date.

Moderate – A greater understanding of the feature, or the factors affecting it, is required before a confident concluding judgement can be made by experts. For range, population, and habitat, the current estimate and/or

trend are based on recent, but incomplete or limited survey data; or alternately, a comprehensive, but outdated (pre-1994) review.

Low – Judgements, and comprising estimates, are based predominately on expert opinion.

N/A – Assessment conclusion is “unknown”, on the basis of insufficient reliable information

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Map Data Sources

Records compiled by Scottish Natural Heritage (1996-2006) (J. McKinnell *pers. comm*)

Records compiled by the Countryside Council for Wales (2006) (L. Howe *pers. comm.*)

Herpetofauna Conservation Trust Rare Species Database; Reptiles and Amphibians Dataset; HBRG Fish and Herptiles dataset; Dorset SW Pilot species dataset; SW Pilot Project BAP Species Inventory 2002; and the Wiltshire BAP Priority Species Distribution Records (via the National Biodiversity Network (NBN) Gateway).