

GREAT CRESTED NEWT

Triturus cristatus

Hampshire Biodiversity Partnership

1 INTRODUCTION

The great crested newt (*Triturus cristatus*) has been identified as a priority species by the UK Biodiversity Steering Group and the Hampshire BAP^{1,2}. The species has declined substantially over recent years, and is currently experiencing a rate of colony loss of 2% every five years. However, the National Amphibian Survey, published in 1993, suggested that around 18,000 potential great crested newt ponds exist in the U.K.³. Subsequently, conservation action is required in Hampshire to identify, maintain, and where possible expand, existing populations,^{1,2}.

2 CURRENT STATUS

2.1 Ecology and Habitat Requirements

As an amphibian, the great crested newt requires suitable aquatic and terrestrial habitats to accommodate its lifecycle³.

Adult newts arrive in ponds to breed in late winter / early spring, where males perform an elaborate courtship display to attract females. The newts prefer a cluster of relatively large ponds, which are free from fish or ducks, and support suitable aquatic or marginal vegetation upon which females lay their eggs. The newts favour soft leafed species such as curled pond weed (*Potamogeton crispus*), water forget-me-not (*Myosotis scorpioides*), water mint (*Mentha aquatica*), and floating sweet grass (*Glyceria fluitans*)⁴.

After breeding, adults return to the land, spending late summer and autumn foraging for small invertebrates in the surrounding landscape.

Eggs are laid between March and June, and hatch after about three weeks. The larvae have fine external gills, and spend approximately three months in mid-water, feeding on small invertebrates and other newt larvae.

After this time, when metamorphosis is complete and breathing function shifts to the lungs, the juvenile terrestrial newts leave the pond. Most leave by late summer, although some remain to over-winter in the pond. Both adults and juveniles hibernate from mid-October to mid-February, with juveniles reaching sexual maturity after two to three years³. Hedgerows, scrub, and mature wooded

areas are required for hibernation, as well as rough grassland for foraging⁵.

2.2 Population and Distribution

The great crested newt is found throughout continental Europe, and is threatened in several range states. In Britain it is still fairly widespread, but is concentrated in lowland areas of England, with the highest densities being found within a band stretching from the Southeast to the Northwest³.

2.3 Important Sites

Approximately 45 breeding populations are known within Hampshire, and these are concentrated along the south coast and eastern border of the county⁵. Although the New Forest ponds are relatively well known, a comprehensive survey of ponds and their species has never been carried out across most of Hampshire. Thus, further populations may exist elsewhere.

It is thought that populations in the North of Hampshire are strong, but they are poorly recorded, and so along with the better known Southern populations, are threatened by development pressure.

2.4 Protection

The great crested newt is listed under Annexes II and IV of the EC Habitats Directive, and Appendix II of the Bern Convention. Accordingly, it is protected under Schedule 2 of the Conservation (Natural Habitats and c.) Regulations 1994, (Regulation 38), and Schedule 5 of the Wildlife and Countryside Act 1981¹.

3 CURRENT FACTORS AFFECTING THE GREAT CRESTED NEWT

The major cause of decline in great crested newt numbers is undoubtedly habitat loss or degradation.

- The in-filling of ponds for agricultural intensification, development, or for public safety reasons, is a significant cause of habitat loss. The newts are particularly susceptible to pond loss as their persistence depends on having a range

of ponds available to them, since the suitability of ponds for newt breeding changes over time.

- Pond desiccation through natural succession can be a problem in neglected ponds, and water abstraction can also permanently dry out ponds, making them unsuitable for newts. These processes also increase fragmentation of extant sites, reducing the chance that new areas will be colonised.

- Loss or fragmentation of terrestrial habitat are also an issue. They create barriers to dispersal and remove foraging and hibernation sites. Developments in the vicinity of breeding ponds will therefore adversely affect the species even if the pond itself is not affected.

- Inappropriate habitat management may result in habitats becoming unsuitable. Excessive removal of vegetation from ponds, or intensive grazing of rough grassland, will decrease the habitat suitability for newts.

- Deliberate or accidental fish introductions increase predation on larvae.

- Ponds in agricultural areas may experience eutrophication due to fertiliser run-off.

- Exotic species such as the North American bullfrog, *Rana catesbeiana*, may out-compete, or prey upon, great crested newt populations².

4 CURRENT ACTION

4.1 National

- Implementation of the UK SAP is being co-ordinated by English Nature. Lead partners for the project are Froglife, the British Herpetological Society (BHS), and the Herpetological Conservation Trust (HCT).

- English Nature, Froglife and HCT fund the Great Crested Newt Conservation Co-ordinator, whose role is to facilitate the national SAP and give advice on great crested newt conservation issues.

- A work programme produced by the GCN SAP Steering Group has estimated the number of re-colonisations required to off-set current losses of Great crested newt populations, and has set a target of 15 re-colonisations for Hampshire, over five years (1998 – 2003)³, with none having occurred so far.

- As yet, the species has no champion.

4.2 Local

- The Hampshire Amphibian and Reptile Group (HARG) have been involved in obtaining data concerning the distribution of the species in Hampshire, by surveying ponds where the newt has previously been recorded, as well as new sites which may support the species.

- Hampshire Wildlife Trust (HWT) is currently producing information for Local Authorities (LAs) concerning the distribution of the species within their administration, and the implications of a recent tightening in the regulations concerning the protection of schedule II species. HWT has been involved with English Nature in designing mitigation measures in development cases where newt populations could potentially have been harmed.

- Additionally, HWT and HARG are producing an information leaflet and recording form to enable members of the public to identify the great crested newt and report any sightings.

- HWT and other local organisations such as Hampshire County Council (HCC) are involved in managing reserves which contain populations of great crested newt.

- HARG and HBIC are developing criteria to enable sites with great crested newts to be designated as Sites of Importance for Nature Conservation (SINC).

- The BTCV pond warden scheme, although not directly aimed at conserving great crested newts, may aid in creating favourable conditions for the species, and providing valuable data on distribution through communication and sharing of information.

5 OBJECTIVES

The overall aim of this Plan is to protect and increase the distribution and population of the great crested newt in Hampshire. This broad aim translates the specific objectives set out below. Where feasible, objectives have been allocated targets against which achievement can be measured. The 'Proposed Action' table in section 6 identifies the action to be taken to meet these objectives.

	OBJECTIVES	PROPOSED ACTIONS
A	To maintain the existing populations and range of the great crested newt in Hampshire, and to ensure no further loss or fragmentation	1 - 11, 13 - 17, 27 - 31
B	To enhance the status of the great crested newt in Hampshire by addressing the factors contributing to its decline, and by enhancing the suitability of habitats currently unoccupied by the newts, aiding in increasing their distribution and achieving the UK target of at least 15 re-colonisations by 2015	1, 4, 9 - 19, 24, 27 - 31
C	To establish and maintain a comprehensive understanding of great crested newt distribution, status and ecological requirements within Hampshire through appropriate research, surveying and monitoring	20 - 29
D	To promote communication, education and awareness of the status and needs of the great crested newt within Hampshire.	26 - 31

6 PROPOSED ACTION

The following table lists the actions required to achieve the objectives set out in this Plan. Each action has been assigned to one or more 'Key Partners'. Key Partners are those organisations that are expected to take responsibility for the delivery of the actions assigned to them, according to the targets set in this Plan. Other organisations may also be involved in the delivery of action, and they have been indicated in the 'Others' column.

Key to symbols in Action Table:

- ◆ To be completed by the indicated year. Work can commence at any time before the due date, at the discretion of the Key Partner.
- ◆⇨ Design or production of a plan/strategy to be completed by this year and then followed by its implementation.
- ➡ To start by the indicated year and usually followed by ongoing work. A start arrow in year 2003 can indicate a new action, or a new impetus to existing work.
- ⇨ Work that has already begun and is ongoing.

	ACTION	DELIVERY BY		YEAR						MEETS OBJ.
		Key Partner	Others	2003	2004	2005	2006	2010	2015	
◆ = complete by ➡ = start by ⇨ = ongoing ◆⇨ = design by and implement										
Site and Species Policy and Protection										
1	Ensure that all ponds known to hold viable populations of great crested newt are identified in Local plans or Part II of Unitary development plans.	EN, HWT, LAs	HARG, HGBl.	◆						A, B
2	For known populations lying outside designated conservation areas, consider designation as SSSIs, SINCs, etc, in line with current criteria (Developing criteria where necessary).	HCC, LAs, EN	HARG HBIC	➡		◆				A
3	Ensure that LAs are aware of the implications of great crested newt sites under new legislation, (protection of Schedule II species under section 44 (2) (c) of the Habitat regulations).	EN, HWT	LAs	➡	◆					A
4	Ensure that LAs have policies covering the great crested newt and other protected species, in relation to habitat modification, development, etc.	LAs	EN, HWT	➡	◆					A, B
5	Ensure that Local Planning Authorities are aware of organisations that can assist with mitigation design in cases where development is unavoidable.	HWT, HARG	EN, LAs	◆						A
6	Ensure that standard procedures are in place for assessing the suitability of mitigation design, both before and after implementation	LAs			➡			◆		A
7	Review the effectiveness of existing pond protection measures in preventing deterioration and loss of great crested newt habitats.	DEFRA, EN,	FWAG, PA, HWT, HCT, HWT Froglife	➡		◆				A
8	Based on such reviews, promote the development of new measures to aid in great crested newt conservation, (Such as BTCV pond Warden	Various		⇨	⇨	⇨	⇨	⇨	⇨	A

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	schemes).										
9	Ensure that the management plans for the New Forest Special Area of Conservation (NF SAC) continues to take account of the needs of the great crested newt, and that the management of ponds within the New Forest is compatible with the life cycle requirements of the species, (E.g. Control of <i>Crassula helmsii</i>).	EN	HWT, EA, NFC, NFDC	↔	↔	↔	↔	↔	↔	A, B	
Site and Species Management											
10	Encourage the favourable management of habitats that currently contain great crested newt populations to maintain the number and distribution of occupied sites within Hampshire.	EN, HWT, Land owners / managers	LA's, FA, FE, DEFRA, FWAG	◆↔	↔	↔	↔	↔	↔	A, B	
11	Ensure the favourable management of designated sites supporting the great crested newt, such as SSSIs and SINCs.	EN, Land owners / managers		➡		◆				A, B	
12	Encourage natural dispersal through suitable habitat management / restoration, considering both aquatic and terrestrial modifications, to work towards Hampshire's re-introduction target.	EN, HWT, Land owners / managers	LAs, FA, FE, DEFRA, FWAG	◆↔					◆	B	
13	Encourage the control / eradication of introduced species which may detriment great crested newt populations	EA, EN	HWT, HCC	◆↔	↔	↔	↔	↔	↔	A, B	
14	Encourage bodies that offer habitat modification grants to target areas in Hampshire where Great crested newt populations are known.	EA, EN, HWT, LAs.	DEFRA, FWAG.	◆↔	↔	↔	↔	↔	↔	A, B	
15	Encourage the uptake of grant schemes for habitat management (E.g. Countryside Stewardship Scheme) which will aid in the protection or creation of ponds.	DEFRA, FWAG, HWT,	EA, LAs, EN	↔	↔	↔	↔	↔	↔	A, B	
16	Endeavour to take account of the requirements of this species when reviewing existing agri-environment schemes.	DERFA	FWAG		◆↔	↔	↔	↔	↔	A, B	
17	Consider the expansion of such schemes, or alternative means of funding where gaps exist (E.g. HWT, NGO's).	DEFRA, FWAG.	Various			◆↔	↔	↔	↔	A, B	
18	Utilise survey and research information to identify currently unoccupied sites, which are / may become, suitable for supporting great crested newt populations, and encourage suitable management to maintain and improve them.	HWT, EN, HARG	LAs, Land owners / managers		◆↔	↔	↔	↔	↔	B	
19	Produce further plans for re-introductions, to contribute to the target of 15 re-colonisations for Hampshire, over 5 years.	HWT, EN, HARG.	LAs, Land owners / managers		◆↔			◆		B	
Research, Survey and Monitoring											
20	Utilise all data collected within the county to determine great crested newt distribution. Particularly, review Hampshire pond survey information.	HWT, EN, HARG.	EA, BTCV, HCC, HBIC	◆						C	

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21	Initiate surveys to confirm historic sightings, or document losses, as was carried out for many ponds within the New Forest.	HWT, HARG.		■	◆					C
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22	Contribute to the production of a standard framework for survey techniques, data recording and storage, and training of surveyors and managers, (i.e. Creation of county-wide / country-wide standards).	BRC, EN.	Various		■			◆		C
23	Encourage / carry out regular monitoring of known or suspected great crested newt sites, and register planned and completed surveys with Froglife, (perhaps as part of a national scheme, co-ordinated by Froglife?).	HWT, HARG, etc.			◆⇌	⇌	⇌	⇌	⇌	C
24	Initiate / continue research into areas that may be suitable for great crested newt introduction – consider habitat suitability and impacts at source and introduction sites.	HWT, HARG, etc.		⇌	⇌	⇌	⇌	⇌	⇌	B, C
25	Suggest research subjects to be addressed and communicate these to research institutes, etc, (e.g. Effects of habitat modifications, etc).	HWT, HARG, etc	Education Institutes		■	⇌	⇌	⇌	⇌	C
Communication, Awareness and Promotion										
26	Ensure that all relevant information (concerning both presence <u>and</u> absence of the species) is made available to all relevant bodies, (E.g. BRC, LA's)	HWT, HARG, HBIC	Individuals , Consultancies	■	◆					C, D
27	Facilitate the collation of all distribution and population data to one accessible source within the county and ensure appropriate incorporation within national databases, contributing to an up-to-date Red List.	HBIC, HWT		⇌	⇌	⇌	⇌	⇌	⇌	A, B, C, D.
28	Ensure that the needs of the great crested newt are considered within other species and habitat action plans in Hampshire, through liaison with the Hampshire BAP and national great crested newt Steering Groups, (allowing information exchange and avoiding duplication).	HCC, HWT	Various	◆						A, B, C, D
29	Conduct presentations / training days for all appropriate organisations and individuals within Hampshire highlighting the status of the great crested newt (along with other priority species) and appropriate protection and conservation measures.	HWT, EN			◆⇌	◆				A, B, C, D
30	Ensure that printed information on great crested newt conservation requirements, sympathetic management, and available funding is available to all land managers and relevant bodies within Hampshire.	HWT, EN	DEFRA, FRCA,	■		◆				A, B, D
31	Produce articles, press releases, and interpretation material concerning the great crested newt and amphibian conservation in general, for local or natural history press, visitor centres, and country parks.	HWT, HARG, LAs, EN	Land owners / managers	⇌	⇌	⇌	⇌	⇌	⇌	A, B, D

KEY TO ORGANISATIONS:

BHS British Herpetological Society
BRC Biological Records Centre
BTCV British Trust for Conservation Volunteers
DEFRA Department of the Environment, Food and Rural Affairs
EA Environment Agency
EN English Nature
FA Forest Authority
FE Forestry Enterprise
FWAG Farming and Wildlife Advisory Group
HARG Hampshire Reptile and Amphibian Group

HBIC Hampshire Biodiversity Information Centre
HCC Hampshire County Council
HCT Herpetological Conservation Trust
HGBI Herpetofauna Groups of Britain and Ireland Network
HWT Hampshire Wildlife Trust
LAs Local Authorities
NFC New Forest Committee
NFDC New Forest District Council
PA Pond Action

REFERENCES

- 1 **Biodiversity – The UK Steering Group Report: Volume2: Action Plans**, Department of the Environment, HMSO, 1995.
- 2 **Biodiversity Action Plan for Hampshire: Volume 2**, Hampshire Biodiversity partnership, 2000.
- 3 **UK Great crested newt *Triturus cristatus* Species Action Plan Work Programme 1998-2002**, Great crested newt Species Action Plan Steering Group, 1998, (unpublished).
- 4 **Advice Sheet 11: Surveying for (Great crested) newt conservation**, Froglife, 2001.
- 5 **Great crested newts in Hampshire**, Hampshire Amphibian and Reptile Group / Hampshire Wildlife Trust, 2001 (unpublished).

This is one of many Habitat, Species and Topic Action Plans being prepared by the Hampshire Biodiversity Partnership. It will be monitored by the Partnership and fully reviewed.

This species action plan has been prepared by Debbie Wicks and Ali Morse on behalf of the Hampshire Biodiversity Partnership.

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