

Great Crested Newt Action Plan

Triturus cristatus

UK Biodiversity Action Plan List of Priority Species: Yes Scottish Biodiversity List: Yes European Protected Species: Yes

Summary

Of the three native species of newt, the Great crested newt is the UK's most threatened and has suffered declines in the UK and Europe since the 1940's.

The distribution of Great crested newts within North Lanarkshire requires further research, and the size of individual populations at known sites has yet to be determined accurately. The exception to this is at Gartcosh Local Nature Reserve, where a great deal of work has been undertaken to translocate the newts to newly created habitat. The population represents one of the one of the largest colonies in Scotland.

More survey work is required for other populations in North Lanarkshire to determine how many newt individuals and populations there are and to help formulate suitable habitat creation schemes that will allow populations to expand.

Species Profile

The great crested newt *Triturus cristatus* is the largest native British newt, reaching up to around 17 cm length. The common name for the Great crested newt is derived from the dorsal crests that the males develop in Spring. The skin is rough and granular (caused by glands which contain toxins making it unpalatable to predators) hence it's other common name of the 'Warty Newt'. It's under belly is a bright orange/yellow colour with black markings, which advertises its toxicity and foul skin, deterring predators. It is dark grey, brown or black over most of the body, with a bright yellow/orange and black belly pattern.

Great crested newts spend the majority of their lives on land, but migrate to water in the spring to breed.

A suitable pond for Great crested newt is typically medium to large with some areas of deeper, clear water exposed to sunlight for at least part of the day. Breeding ponds are typically small to medium (50-250m²), but clusters of small ponds can also be used. These ponds should be absent of fish, to prevent predation of larvae and eggs. There should also be a suitable selection of water plants, as the newts use these to lay their eggs.

Great crested newts exhibit a preference for densely vegetated ponds that are well established, with two thirds of the pond covered with submergent plants and between a quarter and a half covered with emergent/floating vegetation. However, open and less densely vegetated areas within the pond should also be available for the Great crested newts to display.

The surrounding terrestrial habitat should have sufficient ground cover, such as scrub, deciduous trees and long grass, containing moist areas, log piles and rocks for the newts to take refuge in during the day. During the winter months, these can provide underground hibernacula which protect them from frost. Newts will stay there from November until returning to their breeding ponds in Spring. The breeding



season begins in February-March (dependent on temperature) and continues until June.

The Great crested newt's eggs are small (0.5cm), white and oval and are laid singly and wrapped carefully in aquatic plant leaves by the female. The adults offer no parental care or protection, and the survival rate is often low, with animals such as insects and leeches predating the young.

Predation by fish, and other aquatic animals, is a large threat to the larvae as they hover mid-water and can be an easy target. The larvae typically metamorphose once they reach 8 cm long and leave the water to seek out terrestrial food and shelter. They can return to water each summer to take advantage of available food and begin breeding when they are in their 2nd or 3rd year.

Adult Great crested newts tend to remain in or around the vicinity of their breeding pond, with an average dispersal distance of around 290m and a maximum distance of approximately 1000m. It is vital that suitable habitat exists between ponds to allow movement, expansion and survival of populations.

The diet of Great crested newts is varied and can include earthworms, beetles, slugs and other terrestrial invertebrates. However, in water they will prey on aquatic invertebrates, frog and toad tadpoles, the other two newt species and even smaller members of their own species.

Legal Status

The Great crested newt is one of the UK's most strictly protected amphibians. It is an internationally important species identified on Annexes II and IV of the EC Habitats Directive and Appendix II of the Bern Convention. In the UK it is protected under Schedule 2, Regulation 38 of the Conservation (Natural Habitats, etc) Regulations 1994 (as amended). It has protection under Section 9 and Schedule 5 of the Wildlife & Countryside Act 1981 (as amended), where it is protected from trade, injury/killing, capture, disturbance and damage/destruction to its habitat or resting place and disturbance or obstruction access to breeding/resting places. It is an offense to take or destroy great crested newt eggs. A licence is needed to handle them. A conservation licence is required in Scotland, if the intention is to survey them.

Current Status

Great crested newts are widespread throughout England and Wales but are localised in Scotland and absent from Northern Ireland and the Republic of Ireland. One estimate has put the national population at around 400,000 animals in 18,000 breeding sites. Many of the largest populations are centred on disused mineral-extraction sites, but lowland farmland forms the majority of great crested newt habitat in the UK.

It is estimated that there are about 75,000 populations in the UK. The British Great crested newt population is amongst the largest in Europe.

The majority of newt breeding ponds in the seventeenth to nineteenth centuries were artificial ponds on farmland. It is thought that these artificial ponds were suitable places for the newts to disperse to as their natural wetlands were claimed for farmland.



In recent decades, Great crested newt populations have declined dramatically more than observed for other amphibians. Studies in the UK in the 1960s to 1990s show losses of 0.5% to 4% of the colonies or populations per annum. This gives an estimate of some 40,000 breeding ponds lost during this period in the UK alone.

Estimates of the population size in Scotland range from 1000 to 11,500 individuals and Great Crested Newt have been recorded at 83 sites in Scotland (2011).

In the last 30 years, Great crested newts have been recorded in 15 locations in North Lanarkshire. However, within the last 15 years only 8 of these site are known to have existing populations.

There is a medium to large population of Great crested newt at Drumcavel and a management strategy to protect the population has been developed.

Through annual monitoring it is known that the population of Great crested newt at Gartcosh is stable with a slight increase in numbers since 2008. This population is thought to be one of the largest in Scotland

The population of newts that were formerly found at Ravenscraig Steel Works area were part of a translocation and habitat creation management plan. Only two adults and 1 larva were recorded and translocated. May survey have been undertaken in the past 7 years. Due to development in and around this area. All surveys have come back negative for this species, It is therefore thought that this small population.

The Gartcosh population forms part of a Local Nature Reserve managed by North Lanarkshire Council; this offers some protection. Drumcavel Quarry and Croy Hill are owned by the Forestry Commission Scotland, which offers these populations some protection from development.

Future Status

The key to the continuing existence of healthy, viable Great crested newt population lies in ensuring that there is suitable breeding, foraging and hibernating habitat available to colonies with the possibility for expansion. Maintenance or creation of habitat networks allowing the movement of newts between suitable areas would ensure their favourable conservation status and survival.

Current Factors Affecting This Species

- Great crested newt aquatic and terrestrial habitat has become increasingly fragmented due to development. This creates small, isolated populations that are more susceptible to extinction than larger, well-connected populations.
- The loss of grassland, woodland and scrub habitat reduces opportunities for foraging, dispersal and hibernation.
- Introduced fish, such as pike and perch can have a drastic effect on a newt population as many fish will predate Great crested newt larvae and potentially decimate a population in the space of a few years. Some landowners and course fishermen commonly practise introducing fish to new ponds, leaving Great crested newts vulnerable to predation.



- Great crested newts benefit from new pond creation over a number of years, as part of a wider pond way, providing ponds in various stages of maturity. Success is more likely in an area with several suitable breeding sites in close proximity.
- Quarry sites have provided good habitat within North Lanarkshire for Great crested newts. However, renewed workings and land refill has reduced the available habitat, severely damaging some populations.
- Great crested newts are vulnerable to pollution of water bodies and dumping of rubbish on sites.
- Due to a lack of comprehensive surveying and knowledge, sites harbouring Great crested newts could be developed and unknown populations lost.
- Great crested newts are vulnerable to indirect disturbance due to unsympathetic management, such as nearby felling or planting, altering the composition of light, humidity and temperature conditions at a pond.
- Loss of breeding ponds through destruction or degradation of water quality.
- The natural process of succession in which the pond, through time, fills with vegetation and silt and so dries out.

Current Action

- Surveys of potential habitat conditioned in planning responses and guidance from NatureScot included.
- Continuous management of ponds and terrestrial habitats at Gartcosh. This
 includes removal of overgrowing pond vegetation which is done on a rotatory
 basis so that the ponds on site are all at a different stage of succession.
- Continued annual monitoring of Great Crested Newt population at Gartcosh since 2008.
- Creation of 10 new ponds and several hibernacula's at Gartcosh along with enhancements to territorial habitat such as woodland planting extension.
- GIS layer of known Great Crested Newt sites updated annually.
- Gartcosh Ponds (old cement works) designated as SINC due to known population of Great Crested Newts.
- A survey of the Croy Hill population commissioned by the Forestry Commission in 2013 found the population has now expanded, with an increase in occupied three of the ponds.
- Creation of ponds and enhancement of existing ponds at Ravenswood, Gartcosh, Palacerigg, Riccard Johnston.
- Training workshops both indoor and outdoor sessions for staff and volunteers on GCN identification, survey techniques, overall ecology, and biosecurity in 2019.

Proposed Objectives, Targets and Actions

Objectives

1. To expand the population of Great Crested Newts within North Lanarkshire



2. To protect the habitats of all known Great Crested Newts sites in North Lanarkshire Council and prevent damage to potentially unknown populations

Action	Meets objective number	Action by	Target
Site safeguard and management			
1.1 All known Great Crested Newt colonies to have their potential colonisation, breeding, foraging and hibernating habitats designated as SINCS.	2	NLC	All reported sites to be surveyed and designated as SINC if GCN found by 2023
1.2 Encourage all landowners of Great Crested Newt breeding sites to take forward positive management of these sites, including habitat creation and restoration	1,2	NLC, Nature Scot	Provide advice to landowners when suitable and support in taking forward positive management for GCN. Ongoing
Monitoring and research			
3.1 Identify expansion areas and migration routes beyond the existing core sites and enhance and protect these sites.	1	NLC	All known expansion and migratory routes mapped by 2024. An enhancement project for at least one of the sites to be taken forward by 2026.
3.2 To have surveyed all known and suspected Great Crested Newt sites.	2	NLC	Survey all sites every 2 years from 2023
3.3 Develop a programme of surveys for ponds in NLC ownership within proximity to known GCN populations	1, 2	NLC	Complete survey programme by the end of 2024, with all sites surveyed by 2028
Communications and publicity			
4.1 Raise awareness of the status and needs of the great crested newt and promote appropriate habitat management through site interpretation and educational work.	1	NLC, Nature Scot, CARG, SWT	2 educational events a year. New interpretation at 2 sites by 2026

Updated by Kirsty Mooney, Biodiversity Project Officer, NLC, 2022

Further Information

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Web sites:

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www.whose-tadpole.net
www.froglife.org
http://www.herplit.com/
http://www.herpetofauna.co.uk/
http://www.ukbap.org.uk/UKPlans.aspx?ID=619

CARG – Clyde Amphibian and Reptile Group GCN – Great Crested Newt