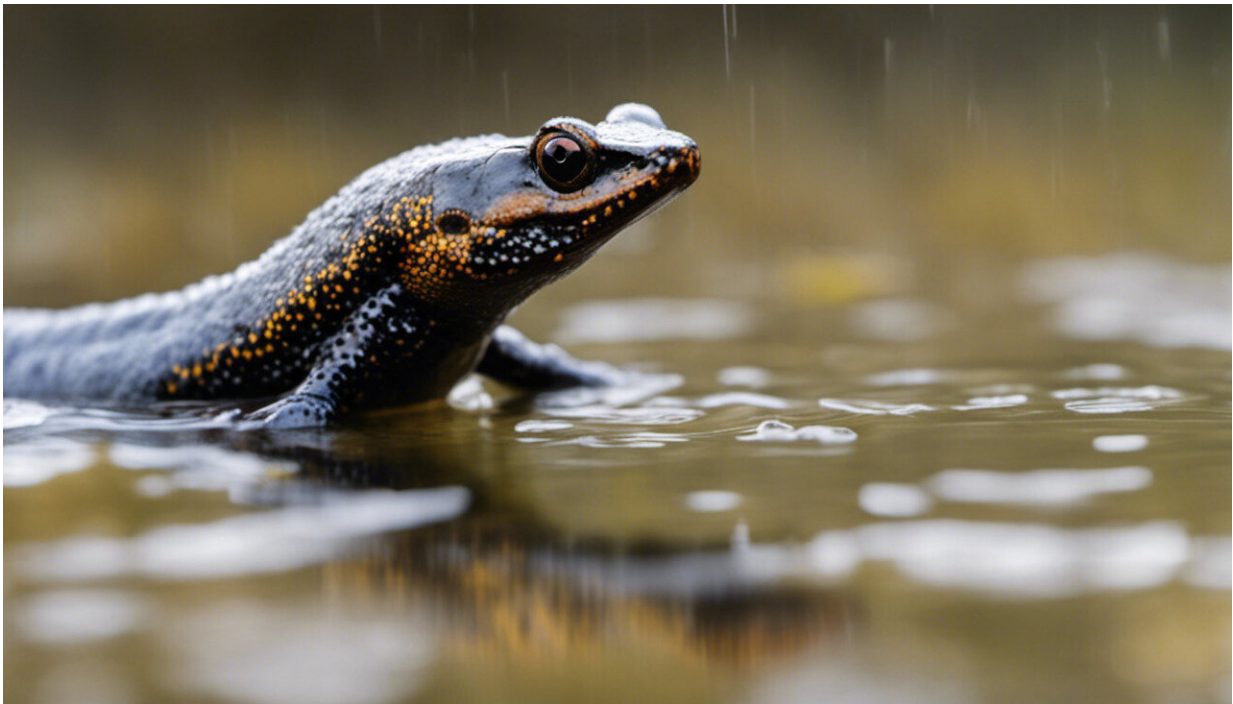


# In defence of great crested newts—why these elusive amphibians are worth the worry

September 22 2017, by Yvonne Black

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Credit: AI-generated image ([disclaimer](#))

You have probably never seen a great crested newt. If you're in the UK, you'll usually only hear about them when construction work is halted because they are found at a building site. In the past month alone, relocating these protected animals has caused delays to [new roads](#), a huge [rail freight hub](#), a [1,400-home development](#) and a football club's

state-of-the-art [£14m training complex](#). Even an [illegal rave in Norfolk](#) only made the news because it was too close to a protected breeding site.

As a European protected species, great crested newts and their habitats are fully protected by [law](#), so a development which risks disturbing them can only go ahead if approved plans are made to relocate them to another suitable habitat. It might seem reasonable to hope that, after Brexit, there will be less "red tape", and that we can get on with building without worrying about a few newts. But these creatures are worth worrying about. Even if you've never seen one, their fate and yours could be linked.

Great crested newts are large, up to 15cm long, and can be found in ponds across northern Europe. When not breeding, they are nocturnal, and tend to spend the daytime hiding away – one reason humans rarely spot them.

As they go about their day-to-day lives, these newts perform important functions which inadvertently benefit humankind. We may say that they contribute to "ecosystem services". One service is the cycling of nutrients from water to land and back again, thanks to their complex [lifecycles](#). This contributes to soil fertility, a service our overworked soils desperately need if we are to provide enough food for a growing population.

They also eat small biting insects like midges. Aside from being irritating to humans, midges are also responsible for transmitting diseases such as [bluetongue](#) to livestock. These diseases have animal welfare implications, as well as knock-on effects on the cost of food production. Predicted rises in temperatures in the UK, associated with [global climate change](#), mean that we are likely to see more of these insects [in future](#), and more insect-borne diseases.

## Why pick on the great crested?

Some functions within an ecosystem will be carried out by more than one species, and it's true that the UK's six other native amphibian species (the common frog, pool frog, common toad, natterjack toad, smooth [newt](#) and palmate newt), all contribute [ecosystem services](#) in similar ways. Yet it is the great crested newt that makes the news, thanks to its special protection status and its tendency to be found in sites which are earmarked for development. It may be that newts are utilising the new ponds that frequently develop in post-industrial land and brownfield sites because agricultural intensification and development has reduced the availability of field ponds and other habitats.

ADAS's recently installed great crested newt tunnel, designed to help newts safely cross a road going through a new development [@ADASGroup pic.twitter.com/JzoLGLanAr](#)

— ADAS Ecology (@ADAS\_Ecology) [November 22, 2016](#)

The UK could of course give up on protecting these newts, and rely instead on other native amphibians to fulfil their functions. But this would be a very risky move.

In ecology, a species may be termed "redundant", if other species within an ecosystem carry out the same functions. But the existence of a redundant species is not pointless. It may become extremely important after a major event, such as a fire or an earthquake, as part of the [adaptive process](#) which allows an ecosystem to keep functioning. How do we know which species will be important in the future? We don't really. We can make predictions about what will happen in the environment, of course, but there is a lot of uncertainty in any complex system: events could unfold along a variety of different paths.

We are currently in the middle of the [sixth mass extinction event](#) of the past half billion years. Amphibian species across the world are declining [faster](#) than any other class of animal. Every time we lose a species of amphibian, or indeed of any animal or plant, we suffer the loss of genetic material. This material, the earth's biodiversity, is vital for our planet's resilience. To cope with changes (and there are certainly plenty of those around), the living planet needs variety, providing the capacity to adapt. Without this, we are vulnerable to potentially catastrophic consequences resulting from even small environmental disturbances.

Nothing like a cheeky Great Crested Newt eDNA test to get the day started. [May 18, 2017](#)

It's not possible to save every single species, and we can't always tell which will become the most important to us. This means we have to concentrate our conservation efforts where they have the greatest chance of success. But with great crested newts we have a good chance, especially as new techniques allowing us to [detect traces of newt DNA in water](#) mean that surveying for their presence is cheaper and quicker than ever.

It's in our best interest to make use of these techniques, and keep working to conserve this [species](#). We humans are part of the same network as all other life on earth, dependent on the same finite resources. Great crested newts might just turn out to have a key role in our own survival.

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