



LIVING WITH... AMPHIBIANS

Amphibians include frogs, toads, newts, salamanders and caecilians and can be found in a wide variety of habitats around the world, from deserts to rainforests.

There are seven species of amphibians native to Britain: two frogs (the common frog and pool frog), two toads (the common toad and natterjack toad) and three newts (the great crested, smooth and palmate newt). A number of non-native species have also become established in parts of Britain and are a common sight in some areas.

Amphibians are a unique group of animals that depend on water for breeding, but spend most of their life on damp or dry land. During the breeding season, adult amphibians migrate to nearby water bodies, often ending up in garden ponds. Frogs and toads call during this time to attract mates while male newts put on elaborate displays to impress females. Female amphibians lay hundreds or even thousands of eggs (spawn) into the water which then hatch into frog or toad tadpoles or newt larvae. These young amphibians are entirely aquatic and breathe through gills. As they grow, they change into miniature adults through a process known as metamorphosis, and develop a range of adaptations to life on land, such as lungs to breathe air. Once on land, amphibians can travel surprising distances.

Spawn seen in clumps in shallow water will be from frogs. However toads lay a long, double rowed string of eggs wrapped around plants, often in deeper water. Newt spawn is the most distinctive as each egg is individually laid on a leaf below the water's surface.

Like reptiles, amphibians cannot warm their own bodies as mammals do; they have to absorb warmth from their environment and they do this by seeking warm, moist places to live. They overwinter in dark, damp, secluded places like under stones or logs or underground. Male frogs often spend their winter on the bottom of a pond or lake.



Common frog

All amphibians are carnivores and take a wide range of prey. Frogs and toads eat slugs, snails, earthworms, insects and even small fish. Newts eat whatever they can catch in the water and will also forage on land for beetles, slugs and snails. You will often find frogs and toads have moved into or are visiting your greenhouse or conservatory, as both have ideal temperature and humidity and provide an excellent food source for them.

The populations of amphibian species have declined in numbers recently, primarily due to the loss of their natural habitat and the spread of disease. Pool frogs were presumed extinct in the wild in 1995 but have fortunately been reintroduced in East Anglia. British amphibians face many other threats including predators (also dogs and cats), disease, careless garden maintenance (mowing and strimming), nylon garden netting, pesticides and bonfires.

What's the difference?

FROGS AND TOADS:

Generally, frogs are found in damp places through most of the year. They are agile, fast moving and typically have a smooth, moist or slimy skin. Toads may seem reluctant to move and often crawl instead of hopping. They live in drier places outside of the breeding season than frogs do and they are plumper, with dry, warty skin.

NEWTs AND LIZARDS

Newts are commonly mistaken for lizards, but while lizards have dry and scaly skin, newts have moist, spongy or warty skin. Unlike most lizards, newts are often found in damp cold places or in ponds. Newts also have a slower, more deliberate way of moving compared to the darting, agile movements of a lizard.

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Are amphibians protected?

All native British amphibians benefit from legal protection under the **Wildlife and Countryside Act 1981** (as amended). The great crested newt, natterjack toad and pool frog are fully protected and it is an offence to kill, injure, capture or disturb them, or to damage or destroy their habitats. UK law also prohibits the sale or trade of common frogs, common toads, palmate newts and smooth newts.

Under English and Welsh law you may only take common frogs, common toads, palmate newts and smooth newts into captivity. We strongly recommend that tadpoles or froglets are released back into the same pond from which they were taken, to prevent disease from being transferred from one pond to another. Once captive, any amphibian will be protected under the **Animal Welfare Act 2006** and we strongly discourage taking or keeping wild animals in captivity. It is also an offence to release non-native amphibians or allow them to escape into the wild.

How can I encourage amphibians to use my garden?

POND

A suitable frog pond should have a shallow area (15-30cm deep) for spawning and be about 1m at the deepest point. The pond should receive both sun and shade and have plants along the edge. **The sides should be gently sloping to help animals escape from the water.** Although it may be tempting to take spawn from a different pond and add it to your own, this is never a good idea due to the risk of introducing diseases, invasive plants or parasites. There is also the danger that the animals will be introduced to a habitat which is unsuitable.

GARDEN

Even if you don't have a pond, you can still encourage amphibians into your garden. Amphibians require places to forage, shelter and hibernate. They will happily make use of **log and stone piles, long grass, compost heaps, sheds and greenhouses** – anywhere they can find shelter and food. Always beware when working in your garden and avoid using netting with mesh size less than 4 cm, if at all. **Always check bonfire piles before lighting!**

I have too many frogs, toads or spawn in my pond - what can I do?

Some people think they have too much spawn in their ponds. This is entirely normal, because out of the approximately 2000 eggs laid by each frog or toad, only about five or six tadpoles that hatch will survive to adulthood. The loss of spawn, tadpoles and froglets to predators is extremely high. **The best thing to do is to leave them alone and let natural processes regulate their numbers** as it is not a good idea to move amphibians or their eggs (see above). Once tadpoles complete the change to froglets, toadlets and newtlets, they leave the water and disperse over the following weeks.

Moving amphibians

Moving amphibians to an empty pond is a bad idea; by doing so you may accidentally transfer diseases and invasive plants with them. Many amphibians may try to return to the area they came from or may suffer as a result of being placed in an unsuitable area. Likewise, introducing amphibians to the wild or public water bodies could be harmful to the animals, the ecosystem, and depending on the species could also



Natterjack toad tadpoles (above)

Palmate newt (below)



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I need to work on or fill in my pond, what should I do?

Destruction of amphibians' habitat or place of shelter could constitute an offence; **always contact Natural England or Natural Resources Wales before proceeding.**

- Before filling in a garden pond, we urge you to reconsider. Garden ponds are very important for wildlife. If filling in the pond is due to concern for a child's safety, there are a range of products available to make ponds secure for young children, such as a pond safety grid. Netting should never be used, as it can trap wildlife. If you are considering filling in your pond, please contact your local wildlife trust for further advice.
- If the pond must be filled in, then **it should not be disturbed from February to September**, when breeding or young amphibians could be at risk. The best time to clear out mud and weeds is from September to October, after the tadpoles are out and before amphibians start to hibernate. If the pond work can't be delayed, check the pond carefully and place any amphibians that you find in a suitable container, such as a tank with pond water, while you carry out the work. Afterwards, return the amphibians to the pond carefully.

I have found an amphibian I think needs help, what do I do?

Amphibians sometimes choose to lay their spawn in very unsuitable places (e.g. watering can). **This is natural and the spawn should be left alone.**

However, if you need to move it, try and wait until the spawn hatches to tadpoles and then move them to a pond as close as possible, ideally within one mile.

If you find an injured amphibian and the injury appears slight, or the animal is trapped or in danger, try and move the amphibian to a sheltered part of the garden where it can recover. **Make sure it can get away if it wants to.**

I have disturbed an amphibian that was hibernating, what do I do?

If you disturb a hibernating amphibian during winter, it should be fine if you cover it back up and leave it alone. If you cannot return the animal to where you found it, place it somewhere with protection from frost and predators e.g. log piles, under a shed or within your compost heap. The place does not need to be 'warm', just free of frost.

To report an injured or sick amphibian to the RSPCA, please ring the cruelty and advice line on **0300 1234 999**

If you see a dead amphibian please report it to www.gardenwildlifehealth.org



Common toad