

SETTING THE RECORD STRAIGHT #4

In the last posting we considered general requirements for amphibian breeding sites. Today we will consider specific requirements for toads. Simply put, they prefer a water depth 90cm or more, and need established submerged pond vegetation to lay eggs on, as well as deep areas free of vegetation for the toadpoles to shoal in. Despite this and despite all of the factors considered in posting 3, others are still claiming that the boating lake is an ideal toad breeding site purely because it is large, shallow and flat bottomed and because annual winter drainage prevents any fish and dragonfly larvae from surviving in it. The following specific requirements for toad breeding sites which are drawn from a wide range of authoritative sources (all of which are referenced) are presented to counter those assertions.

Toads like fairly deep, well-oxygenated water to lay their eggs, and are usually found in larger fish ponds, reservoirs and farmland ponds - <https://www.norfolkwildlifetrust.org.uk/wildlife-in-norfolk/species-explorer/amphibians-and-reptiles/common-toad>

Toads seek fairly deep, well-oxygenated water preferably about 600mm deep to lay their eggs. Frogs choose shallower water and can even breed in puddles and ditches where the oxygen content of the water is much lower - <http://www.countrysideinfo.co.uk/toads2.htm#BREEDING%20SITES>

Common toads prefer deeper water bodies in which to breed. Like the adults, the tadpoles contain toxins in their skin, which makes them unpleasant to fish, so allowing them to live in fish ponds, where other amphibian larvae particularly those of newts would be eaten - <http://freshwaterhabitats.org.uk/habitats/pond/identifying-creatures-pond/common-toad-bufo-bufo/>

Sunny location away from trees, terraces at a range of depths including lots of shallow areas - most of the pond should be less than 30 cm deep with a deeper area of 60 cm, shallow sloping sides to allow wildlife easy access, a boggy area, links to other features for example log and rock piles, hedgerows, long grass and shrubs, rain water - <https://sussexwildlifetrust.org.uk/discover/in-your-garden/article/41>

An ideal pond for amphibians should have shallow areas for spawning, and some plant life, and it should not contain a high density of predators such as fish, newts, ducks or moorhens - although common newts will usually leave toad tadpoles alone - <http://www.nottinghamshirewildlife.org/wildlife-habitats/local-wildlife/frogs-and-toads>

Toads depend entirely on the availability of a clean fresh water source to breed and so are a good indicator of the health of the environment. They prefer large, deep ponds and are less likely than frogs to colonise and breed in shallow garden ponds - <http://www.hull.ac.uk/HBP/ActionPlan/CToad.htm>

Toads tend to spawn in deeper water forming ropes of eggs, which wind around plant stems.

<http://www.bbcwildlife.org.uk/node/3051>

Toads breed in larger, deeper ponds than frogs. Toads arrive in the ponds to breed a month or two later than frogs, and lay their spawn in long strings, wrapped around water plants. Like the frog, toads leave the water soon after breeding and move into woodland and tussocky grassland. They spend the winter hibernating in damp, sheltered cavities, often using garden rockeries.

www.derbyshirewildlifetrust.org.uk/sites/derbyshire.../frogsandtoads.pdf

Toadlets are seen in abundance from May to July, with froglets taking up to three months to take on the appearance of tiny frogs. At this time it is crucial that they can easily climb out of the pond. Both species will find it very difficult to negotiate the steep sides of ponds and without help may drown at the side of the water. This can even be a problem for older animals, particularly toads who may need extra help to leave water. Gently sloping sides are easier to negotiate for all animals needing to get out of the pond, or ramps can be fitted to allow easy access. <http://www.sttiggywinkles.org.uk/top-navigation/wildlife-advice/amphibians-fact-sheet.html>

Common Toads breed in larger, deeper ponds than Common Frogs.

<http://www.wildlifetrusts.org/species/common-toad>

Natural England Publication - Amphibians in your garden. Make sure there are some shallow margins (up to 20 cm deep), together with a section that is at least 60 cm deep. The shallow areas are particularly important for frog spawning. For toads, you may need to build a much bigger and deeper pond. <http://wlgf.org/linked/ne18amphibians.pdf>

Here are some tips on how to attract Toads to your garden: Create a pond- a nice deep one with graduated sloping sides, have plenty of vegetation in the pond for them to wrap their spawn around, compost bins, log piles, stone piles are all great for toads to live in during the winter and summer months as they are nice and dry. They also provide a good source of food! They lay their spawn in strings (not clumps like the common frog) and they prefer larger, deeper ponds to do this in.

<http://www.dorsetwildlifetrust.org.uk/sotm-commontoad>

Amphibian Habitat Management Handbook - the eggs and larvae are distasteful to fish, so common toads can thrive in fish ponds - www.arc-trust.org/pdf/amphibian-habitat-management-handbook-full.pdf

Unlike a lot of amphibian species, Common Toads like ponds with fish. This is because Common Toad tadpoles are poisonous to fish which gives them a greater chance of outcompeting frog tadpoles -

<http://www.bto.org/volunteer-surveys/gbw/gardens-wildlife/garden-reptiles-amphibians/a-z-reptiles-amphibians/common-toad>

Toad tadpoles have a distasteful skin and are not eaten by many fish or by the smaller species of newt - <http://www.wildlifetrusts.org/node/4386>

Natural England - Amphibians in your garden - toads do not seem to be directly affected by fish - <http://wlgf.org/linked/ne18amphibians.pdf>

Both adults and tadpoles have glands in their skin containing powerful toxins which deter predators and are unpleasant to fish. As a result they are able to live undisturbed in fish ponds - <http://www.arguk.org/download-document/94-creating-garden-ponds-for-wildlife>

The conclusion from all this expert opinion is that the boating lake site fails requirements for amphibians in general, and for toads in particular and therefore is very poorly suited as a breeding site. FoSSC suggests that if there is a strategic desire to increase the size of local amphibian populations, then the boating lake should remain dry to encourage the small existing populations to adopt alternative, better suited environments in the locality where they stand a better chance of reproductive success. In our next posting of this series we will consider what FoSSC has been doing to create appropriately designed amphibian habitats in mitigation and also Council's legal obligations.