

Tadpole Shrimp

Triops cancriformis

A rare prehistoric three eyed alien

Species
Profile

The tadpole shrimp is a very rare and special freshwater invertebrate, its generic name *Triops cancriformis* hints at its prehistoric origins. There are fossil records of very similar organisms from over 200 million years ago. The *Triops* referring to its 3 eyes has more of a sci-fi ring to it.



Temporary pond habitat, the left image showing how it looks when dry in the summer and the right image showing when the pond is temporarily filled during the autumn and winter. The pond small and shallow when filled with water.

In the UK the tadpole shrimp is only found in two sites and one of these is the New Forest. Temporary ponds are scattered across the New Forest drying out in the summer and re-wetting during the autumn and winter, they tend to be small and shallow and provide the ideal habitat for the tadpole shrimp.

Tadpole shrimp eggs hatch when the ponds refill with warm summer rain water. They grow rapidly and a large adult can reach 6cm in length including its forked tail. They have a fast life cycle and can reach maturity and lay eggs in 2 weeks, this is important, as summer ponds may dry up quickly. The eggs settle on the silt at the bottom of the pond and are pushed deep into the mud by the ponies and cattle that drink at the ponds; here the eggs can survive decades in the mud until triggered to hatch.

Spotting tadpole shrimp can be tricky, they move quickly around the vegetation and disappear under leaves or into the mud if startled. The smallest hatchlings have the characteristic shape of the adult but are translucent, as they mature, their carapace darkens and they are well camouflaged against the vegetation and muddy pond floor. Ideal tadpole shrimp spotting conditions are a calm, dry day, as wind and rain disturb the water surface. You may have to stand still, staring into the water for well over 5 minutes before you see one of the elusive tadpole shrimp.

The difficulty in finding tadpole shrimp and estimating their numbers was highlighted to me a few summers ago when I regularly saw 4 - 8 tadpole shrimp scuttling through the vegetation but following a dry spell the pond dried very quickly leaving the tadpole shrimp stranded in the mud and the actual number in the pond was far higher - I counted 86 adult bodies.

The jackdaws and crows had a feast!

My role as a volunteer is to visit the ponds at least once a month and since 2016 I have measured and recorded the water temperature, conductivity, secchi score and pH.

I also estimate the percentage of water in the pond and vegetation cover. I take photos of the ponds, and anything else of interest, just using my mobile phone. We are gathering information on trends which will hopefully help to protect the tadpole shrimp and may help to predict the effect of changes to their environment.

I enjoy pondwatching and am grateful to the friendly and knowledgeable support from everyone at Freshwater Habitat Trust.



A tadpole shrimp scuttling through the vegetation in shallow temporary pond on a still day. The carapace the perfect colour to camouflage to the muddy pond floor.



Ponies and cattle play an important role in maintaining conditions in ephemeral ponds. Keeping vegetation in check and adding dung which supports the food web in these naturally low nutrient habitats, as well as pushing the