

POND LIFE

[These are observations noted whilst going about the tasks of managing and working the woodland, not a thorough survey.]

Upper Pond. The first pond was constructed in 2006 by the sawmill barn. It was not a deep excavation; but in the form of a box built against the hill side, with a butyl liner. It was fed by rain, directly, and from the roofs of the sawmill and seasoning barns.



The water at the lefthand end of the walkway was 5 ft deep and a risk for unsupervised children. Unaccompanied visitors were not permitted in this area because of the sawmill and pond.

Lower Pond. Because of the risks associated with the structure of the upper pond, a second pond was excavated further down the slope, also with a butyl liner, in the form of a shallow bowl, 5 or 6 feet deep in the middle; but with shallow slopes at the edges, not posing significant risk to children were they to fall in. This pond was excavated by machinery after my gap student that winter went on strike over the scale of the task!



The upper pond later developed a leak and has been abandoned. Originally the lower pond had a feed from the overflow of the upper one; however it now survives with only direct rainwater. It was deliberately made deep enough not to suffer in the summer.

Waverley Council subsequently insisted that the ponds were unauthorised and that the excavation works required Planning Approval. Eventually this was obtained; but that is another story.

Dragon, Damselfly and May flies. The first visitors were winged ones; indeed one wonders how a terrestrial newt, frog or toad finds a new pond. What is their search strategy, or are they able to communicate with our winged friends? The first dragonflies were mainly broad bodied chasers, superceded in later years by emperors (see left) and subsequently four spotted chasers (see above). There is a clear distinction between the magisterial patrolling of the emperors and the frenetic movements of the darters and chasers. To the right is a ruddy darter



The smaller dragonfly-like versions, known as damsel flies, arrived in numbers, including the common blue and the small red (see below). It was at this time that I found that until then I had incorrectly referred to the smaller dragonflies as “May flies”. The latter are distinguished by three hair like strands at their rear end.



The photograph to the right shows a common blue male, using the claspers at the end of his body to grip the green-coloured female behind her head, whilst she deposits fertilised eggs. He remains there to ward off other interlopers!



The leaves of the small blue and yellow irises bordering the pond make excellent places for the larvae, or nymphs, after their first year under water, to emerge. They clutch the leaves before the adult emerges from an opening below the rear of the head, leaving the empty shell, or *exuviae*, of its former existence behind.



When ready for the adult to emerge the nymphs are the same size and shape as the adult dragonfly, see the emperor to the right, a broader bodied darter to the left



The newly emerged adult is complete in every respect except its wings, which it then pumps up with blood in the veins and waits until they stiffen. A risky time as they are defenceless during that operation. Dragonflies, then true to their name, may go off and spend several weeks catching flies; before addressing the serious matter of mating. Those so short lived that they do not have mouths by which to eat, bypass that stage and concentrate on mating. That is of course the primary reason for being here in the first place!

The pond is populated with great diving beetles, pond skaters, backswimmers and all the usual suspects, and occasionally an elegantly undulating, swimming, grass snake in search of an amphibious meal.

Frogs, Toads and Newts. We may not know how they find the pond; but they certainly arrive. The toad below was photographed in 2017. The frog on the right by Dominic Greves, at an earlier date.



They all spend their first year under the water. At the end of which frogs and toads metamorphise from tadpoles into adult frogs and toads; and newts shed their feathery external gills, necessary for breathing under water, see photograph to the right



The adults spend most of their time away from the ponds and in particular hibernating in dry crevices in the winter, to return to the pond for mating in the Spring. That is what they are here for!

Frog spawn is in clusters, toad spawn in long strands, see the two photographs below. Both were laid in 2017 in the same, north west, corner of the pond at the same time; but for some reason there did not appear to be any tadpoles. The tadpoles were photographed in 2011. We await this year.

