



AQUATIC INVERTEBRATES (Kevin Mason 2018)

Freshwaters are some of the most threatened habitats in Britain. Pollution, physical degradation, and invasive species are among the threats facing the organisms found in our waters. The River Thames catchment receives outflow from 35 sewage treatment works and run-off from agricultural land, raising pollution to intolerable levels for some aquatic invertebrates, while others may be preyed upon by invasive non-native species such as the American Signal Crayfish. Despite these threats, many invertebrates can still be found in the waters around the Hurst Water Meadow.

The River Thames bordering the meadows varies greatly in depth, flow rate and substrate, with sections of silt, gravel, sand and rocks, which provide habitats for different species. From Easter onwards, after spending years underwater as larvae, numerous Mayflies emerge simultaneously from the water for their famously brief mating flights. In summertime dragonflies and damselflies, such as the Banded Demoiselle, may be seen hunting around the meadow, but again they spend most of their non-adult lives underwater. In fact, most aquatic invertebrates live most or all of their lives underwater, and many species can only be observed by disturbing the river-bed to sample them. On the river-bed caddis larvae produce remarkably elaborate cases using sand, stones, or woody debris, which they live in until they pupate and emerge from the water as an adult. Other species such as the Lesser Water Boatman, Freshwater Shrimp, Water Louse and river bugs live their entire lives underwater, while the River Skater spends its adult life walking on the water surface. The river also provides home for several snail species including Pond Snail, River Snail, Ramshorn Snail, and Nerite.

These invertebrates play an important part in the food chain, feeding on algae, aquatic plants and other invertebrates, and being fed on by the fish, birds and mammals that inhabit the meadows.



Banded demoiselle (*Calopteryx splendens*) Photo by Kevin Mason