

What can you see over the bridge?

Pulsing through our parish, enriching our environment, we have tributarial treasure troves in the Bevern Stream, and its partner-in-flow, the Plumpton Mill Stream. There are times when we can overlook them, but others when we are forcefully reminded of their presence, as happened in December last year, when the Bevern flooded the road and allotments in downtown Plumpton Green. The Bevern suffers from pollution, and obstructions to flow, so some have expressed surprise that the Bevern is as good in supporting fish and their invertebrate food as it is.

There has been much written about the Sussex Ouse Sea Trout, so for this article I will concentrate on some of the lesser celebrated piscine members of our parish, but, hopefully, still as interesting- the Brook Lamprey, the Bullhead and the European Eel.

The Brook Lamprey (*Lampetra planeri*) is listed on the International Union for Conservation of Nature Red list of Threatened Species. Extraordinary lookers, around 10-15cm in length, they lack gill covers and paired fins and instead of a jawed mouth, have a sucker disc with two tooth plates with a few blunt teeth. They live between 4 to 8 years. They are eel like in shape, being long and cylindrical with a rear dorsal fin near to the tail and seven breathing holes on each side of the body. They are dark brown or dark grey in the body, have a white belly and bright yellow eyes. Lamprey, hold on to the riverbed, suckered on with the use of their mouth. They feed on bacteria, algae and other types of detritus from the water and the mud.

The Bullhead (*Cottus Gobio*) described as threatened on an international scale, thrives in our waters. A small, strangely shaped fish, the Bullhead (also known as the 'Miller's Thumb') has a very large head, protruding eyes, relatively large fins and a tapering body. It is brown in colour, with mottling or barring. During the breeding season, the males turn black with white-tipped dorsal fins. It lives on the bottom of fast, stony rivers and streams, feeding on invertebrates, and the eggs of other fish. Spawning occurs between February and June: the eggs are laid in March and April, underneath stones with the male standing guard, until they hatch (although once they hatch, feeling a tad hangry, he has been known to munch on those that come too close). They are crepuscular, and spend their days hiding under stones, and venture out at dawn and dusk to hunt for prey.

The European Eel (*Anguilla Anguilla*) a snake-like fish, with one pair of small pectoral fins and long, snake-like bodies. They have a fascinating life cycle, and did not spring from the mud as Aristotle believed. As catadromous fish, European eels spend most of their adult lives in freshwater rivers, streams, and estuaries before returning to the open ocean to spawn and lay eggs. Sadly, they are critically endangered. Since the 1970s, eel population is thought to have declined by around 90%. Contributing factors include pollution, overfishing, parasites, barriers to migration such as dams, and natural changes in the North Atlantic oscillation. However, a management plan is in place within Europe to try to boost eel numbers. Much of the European eel's life history was a mystery for centuries. In the early 20th Century, research identified the Sargasso Sea (a calm section of the Atlantic ocean near the Bahamas) as the most likely spawning grounds for European eels. The larvae drift towards Europe in a 2-3 year migration. When approaching the European coast, the larvae metamorphose into a transparent larval stage called "glass eel", enter estuaries, and many then migrate upstream. Soon after entering their new Plumpton and East Chilton habitat, the glass eels metamorphose into elvers, miniature versions of the adult eels. As the eels grow, they become known as "yellow eel" due to the brownish-yellow colour of their sides and belly. After 5–20 years of

sharing our neighbourhood, the eels become sexually mature, their eyes grow larger, their flanks become silver, and their bellies white in colour. Now known as "silver eels", they begin their migration back to the Sargasso Sea to spawn, as you do. Sadly, these adults will never be seen again, this is a one-way ticket.

So next time you peer over a bridge, in these travel restricted times, perhaps take a moment to ponder over how exotic our local waterways are; consider how far some of over-looked neighbours have come to be amongst us, or how diligently they look after their young (no wonder some may get hungry) and raise your hat to them, and maybe consider ways of how you can help improve their habitat for all our sakes. As you do that there will hopefully be an eel or two starting their extraordinary migration, so wish them well and godspeed.

Here's to good health for us, and those we share this wonderful corner of the world.

Ben Drummond