

## A Surfeit of Lampreys?

BRETT WESTWOOD



Lamprey ammocoete from River Severn

John Bingham

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They're among the most primitive back-boned creatures. The adults are jawless, blood-drinking, semi-fish armed with large sucker mouths ringed with teeth. For most of their lives they remain hidden in the dark until they transform into very different creatures, before ending it all in a final spawning frenzy. They're a paradox, occurring in such numbers as to be an important part of the aquatic food chain and they are built to last, pre-dating the dinosaurs by hundreds of millions of years. But they are also threatened and declining in many places in the UK, including Worcestershire. In Wyre we may have three species or just the one, but these enigmatic fish are still guarding secrets about their distribution and presence.

Ironically, lampreys are a creature we connect with abundance. Henry I was supposed to have died in 1135 after eating a surfeit of them, though some say that's a euphemism for more fleshly pursuits. Lampreys still retain a royal connection and Queen Elizabeth II was presented with a dish to celebrate her Golden Jubilee in 2012. For most of us commoners though, these are mysterious creatures which you have to seek out if you want to see them.

To do that you need to get to grips with their life-cycles which are stranger than those of most other fish. There are three species of lamprey in the UK and all occur in Worcestershire. If you've seen pictures of a lamprey, it will usually be of the eel-like adults, their bizarre mouths lined with concentric circles of rasping teeth. It's this lack of a jawbone and a primitive, or pineal, eye on the top of their heads that cause some biologists to wonder if these should be classified as fish at all. Our commonest species in the county is the Brook Lamprey which grows to around 15cm. and remains in freshwater throughout its lifetime. It needs clear streams with stony beds, and the adults, which don't feed, spawn in April and May after which they die. Past records have been from Dowles Brook in the Wyre Forest, the Dick Brook, and tributaries of the river Stour among other places.

River Lampreys are similar, but larger, growing to 30cm. or more and unlike the very similar Brook Lampreys, spend much of their adult lives at sea, suckering onto marine fish. They return to freshwater in autumn and spawn in spring in writhing knots on the gravelly beds of rivers. Worcestershire records are few, mainly from the Severn and Teme, but they may occur as ammocoetes in the Bewdley area. Lock gates and dams are a barrier to migrating river (and sea) lampreys, but recent high water levels may enable them to reach new spawning areas.

Our third lamprey species is the elusive Sea Lamprey which can be as thick as a man's forearm and up to a metre long. It spends much of its adult life feeding at sea and spawns in early summer. There are records from the Severn and Teme, and on the Teme they may still use spawning sites in far west Worcestershire. Sea Lampreys do travel through the county annually: in spring 2013, a half-eaten specimen, probably an otter victim, was photographed on the banks of the Teme near Worcester: they may even lurk in the Wyre region.



Adult Brook Lamprey

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Recently we had evidence of this. Bob Green, an angler at Trimpley Reservoir landed a trout with some difficulty only to find that he'd hooked the tail of a lamprey still attached to the trout. Both fish came up together, but the lamprey slithered back into the waters, unidentified. However, Bob had the presence of mind to keep the trout and to photograph the sucker-mark, from which experts have deduced that this was probably made by a Sea Lamprey which had been drawn from the river into the reservoir. Sea Lampreys aren't believed to feed

# Wyre Forest Study Group

in freshwater in the UK, so this record is particularly interesting and we'd be very keen to hear of any other sightings from Trimpey or the Severn.

If the presence of adult lampreys is a shadowy affair, then their first six years or so is even more anonymous. Young lampreys or larvae are known as ammocoetes and they look very different from the adults, mainly because they have no eyes or suckers. They don't need eyes or rasping teeth at this stage because for six years or so, they live in silt-beds in rivers and streams. In their u-shaped burrows, they filter tiny animals such as diatoms from the water by creating a current of water through their mouths and securing them on a mucus thread which they then swallow. Each year they grow a little larger, taking five to seven years to mature, after which they become transformers. Over a few weeks, their mouthparts turn into suckers and the skin over their eyes recedes. River and Sea Lampreys become parasites, heading downstream to feed on the flesh and blood of marine fishes. This vampiric lifestyle prepares them for their last act, when they return to freshwater to spawn and die.

Because the spawning period is fairly short, sometimes just a week or so, finding the ammocoetes is the best way to see a lamprey. I went to Yorkshire in spring 2012, when local experts Brian Morland and Paul Freer showed me the secret of choosing the right silt-bank. In a backwater laden with organic debris, we plunged a stout-framed net deep into the silt and came up with a netful of mud, but also a clutch of wriggling eel-like shapes - my first ever lampreys. Inspired by this, we decided to explore the Wyre area for ammocoetes and so members of the Wyre Forest Study Group gathered on a fine late March day on the banks of the Severn near the Bewdley by-pass. Water levels were low, important if you're searching for a creature which lives in mud-burrows below the water line. We weren't convinced that the tangle of mud and rotten leaves would produce anything, but it wasn't long before we found three lamprey larvae wriggling in the ooze our nets had dredged up. All were eyeless, and one seemed to be in its last year before becoming an adult. We placed this one in a portable tank and photographed it for posterity. We can't be sure of its species because Brook and River Lamprey larvae are almost identical, but the records for tributary streams nearby suggest that these could be Brook Lampreys.

That set us our next challenge - to find adult Brook Lamprey in Dowles Brook. There is no shortage of historic records here, but sightings are infrequent: being in the right place at the right time is crucial. The Brook Lampreys spawn in late April and May when water temperatures have risen. Our first efforts in 2102 were confounded by heavy rain and murky waters, but



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on 27 April 2013, we met on a gravelly stretch of Dowles Brook not far from Dry Mill lane and found a wriggling eel-like creature soon after searching. To our delight, it had eyes and so, for many of us, was our first adult Brook Lamprey. At the same spot, we also found a tiny ammocoete in a sand-bar, proving that the fishes are breeding within Dowles. But are the lamprey larvae we found downstream in the Severn a different species, or are Brook Lampreys travelling along the main river corridor too?

We'd like to know more about all lampreys in Wyre and wider Worcestershire and so any records of these fascinating survivors will be gratefully received by the Study Group and the Worcestershire Biological Records Centre. Lampreys are important indicators of water quality in our rivers and our county is richer for having them around, so do send in your sightings, but be warned ...lamprey-hunting is addictive!



Lamprey damage to Trout from Trimpey Reservoir

Bob Green

**Note from John and Denise Bingham** (from the Botanical Society of the British Isles website)

From Caradoc and Severn Valley Field Club. Record of Bare Facts for the Year 1924.

*Petromyzon marinus* (Sea Lamprey) Elliot. June 25, one; 27, two, in Dowles Brook; July 1, one 1½ lbs.