Freshwater Mollusc Records from the River Severn near Bewdley

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The molluscs found alive on 7th August 2024, when the Wyre Forest Study Group met at the confluence of the River Severn and Dowles Brook, were River limpet *Ancylus fluviatilis*, Jenkins' spire snail *Potamopyrgus antipodarum* and Common Bithynia *Bithynia tentaculata*. At the same site on 6th July 2011 the list of live species was Wandering pond snail *Ampullaceana balthica, A. fluviatilis, B. tentaculata*, River nerite *Theodoxus fluviatilis*, Horny orb mussel *Sphaerium corneum, P. antipodarum*, Duck mussel *Anodonta anatina* juveniles, Common river snail *Viviparus viviparus*, and three species of pea mussels alive (Henslow's pea mussel *Euglesa henslowana*, Shining pea mussel *E. nitida*, Short-ended pea mussel *E. subtruncata*). Shells of Caserta pea mussel *Euglesa casertana* and Zebra mussel *Dreissena polymorpha* were also found. On 7th August I found a lack of good grit to look for the pea mussels but even so there is quite a contrast in the results. The Grid Ref. in my notebook from 2011 is SO78017637, which is where we were on the repeat visit. I remember seeing a much more species diverse site with small water weeds and sponges in 2011. In samples taken on the same date in 2011 from the Dowles Brook at SO728761, *E. subtruncata* and Red-crusted pea mussel *E. personata* and at SO778763 *E. casertana* were found.

At the subsequent meeting on 17th August 2024, looking at two sites downstream of Bewdley, the following molluscs were found: SO79277411 (between Bewdley and the bypass bridge) *A. balthica, P. antipodarum, A. fluviatilis, S. corneum*, Giant pea mussel *Pisidium amnicum*, Large amber snail *Succinea cf. putris* (not an aquatic species), *B. tentaculata*, Hump-backed pea mussel *Euglesa supina* and an old shell of *A. anatina*. At SO79357433, downstream of the bypass at Blackstone Riverside Park, the list was *Succinea cf. putris* (on marginal vegetation), *A. fluviatilis, S. corneum, B. tentaculata, E. supina, P. amnicum* and old shells of *A. balthica*, Swollen river mussel *Unio tumidus, A. anatina* and *Viviparus sp.* (operculum only). The lack of live *Anodonta* or *Unio spp.* was puzzling. *T. fluviatilis* was not found and is known to be extirpated from sites subjected to nutrient pollution (see Kerney 1999). At SO79247409, also at Blackstone Riverside Park, a recent juvenile shell of *V. viviparus* was found in the River Severn on 19th February 2021, after flooding.

Photographs taken by Rosemary Winnall on 29th July 2017 of the River Severn near Hextons Farm SO754820 clearly show that live *T. fluviatilis* was present. Shells of most of the above species were found with *P. antipodarum* alive. A visit to this area on 4th September found one *B. tentaculata* and three *P. antipodarum* alive but no other species, notably *T. fluviatilis*. Again, there was no mud or fine grit suitable for pea mussels.

There were also records of *E. supina, S. corneum, B. tentaculata, V. viviparus, Lymnaea stagnalis, A. anatina, T. fluviatilis* and *P. antipodarum* from the River Severn downstream of the Trimpley reservoirs at SO77607814 for 23rd September 2017. These are records of live molluscs except *T. fluviatilis* and *V. viviparus*.

Pisidium amnicum and *Euglesa supina* are normally found in clean water, E. *henslowana, E. nitida* and *E. subtruncata* are more widely distributed whereas *E. casertanum* and *P. personatum* are found in poor or very poor habitats (Killeen *et al.* 2004). It is likely that the decline in the quality of the habitat at the confluence of the Severn and Dowles Brook is a result of pollutants coming down Dowles Brook. Live *T. fluviatilis* has not been recorded at any of the sites since 2011. The deterioration of the mollusc fauna occurring throughout the areas of the Severn surveyed indicates that there is recent pollution / nutrient enrichment occurring. Recent flooding of the Severn and the scouring of the riverbed may account for the lack of sediment suitable for pea mussels.

References

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Theodoxus fluviatilis. Rosemary Winnall