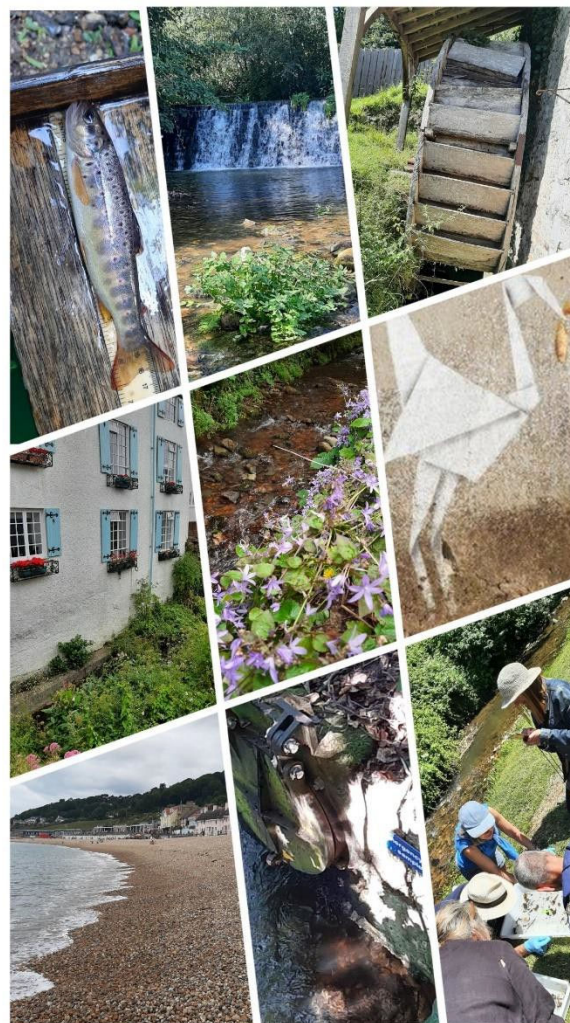


CATCHMENT STUDY OF THE RIVER LIM LYME REGIS

Spring/Summer 2023

Summary



DOMINIC STUBBING HND, PhD, MIFM, CEnv.

Watergates Fisheries Ltd

For and on behalf of River Lim Action Group and
funded by Lyme Regis Town Council

The following is a summary of the report commissioned by the River Lim Action Group following concerns over water quality issues in the lower River Lim. It has been funded by the Lyme Regis Town Council.

This is a study into the historic and current ecology of the the River Lim, in the context of its catchment land-use. These surveys were done at 14 sites around the full spread of the catchment. Electric fishing was only done at four downstream sites due to low flow. The survey was conducted against a background of nearly 2 years of previously collected data, from citizen science, RLAG volunteers and information shared from both the Environment Agency and South West Water.

Geology

The geology principle shows that there is Greensand deep down and also near the surface around the edge of the catchment; this holds water and produces springs. Lias is apparent throughout much of the middle of the catchment on the surface. This has poor permeability and likely fissures mean the river does not hold water well and effectively leaks underground in areas.

Abstraction

There is widespread history of abstractions that are mostly small but currently there are no major abstractions.

Land use

The land use in the catchment is mostly permanent grassland with some arable fields influencing the upper catchment. There are some woodlands which were planted forestry and some good riparian woodland fringes along much of the middle river below Uplyme. The grassland is of mixed use. Some is improved and there are some small cattle farms with silage pits. There is a small land-fill site.

Sewage and drainage network

The sewage works is between Lyme Regis and Uplyme, and a main storage tank is at the bottom of the town, which should get pumped up to the works. There have been visual records of untreated sewage coming out of various pipes and pumps into the river in recent years. Some welcome improvements and upgrades have recently been made by SWW. There are probably many misconnections where rainwater and sewage overload the pumping stations and Sewage Treatment Works in Uplyme particularly during the busy tourist months in the town.

Mills and weirs

There are many old mills in the area. The weirs associated with them are, in places, a barrier to natural fish migration. The one at Woodmead Bridge does have an adjacent fish pass which possibly is not fully effective. The other two sites definitely would restrict fish passage particularly in low flow conditions.

Water quality

Water quality data shows that general nutrient values do not appear excessive but concerning spikes do occur. *E. coli* data, some identified definitely from human source does show, however, regular spikes with very high detrimental readings at times. Levels are recorded as unsafe much of the time on the sections of river below Woodmead Bridge.

Habitats

Habitats in the tributaries are generally good, with rough woody and hedge edges. Also, there is rough grassland but with some overgrazed stretches of riverbank. Below Uplyme there is wooded

channel, but it lacks instream debris. This is important where shaded stretches prevent in channel vegetation from growing. There is just one patch of natural instream weed occurring in the vicinity of Middle Mill. Through Lyme Regis the channel is walled or has revetted concrete channel edge. The bed is natural. There is some seasonal emergent vegetation in spring and summer.

Himalayan balsam was widespread throughout the catchment and there were four recorded patches of Japanese knotweed.

Macro-invertebrates

The macro-invertebrate population was fairly variable in terms of families of species but numbers generally low and certainly could be improved. There is not an index for the scores yet, but this will be possible with the Riverfly score based on eight species currently being recorded monthly by RLAG Riverfly volunteers in eight different locations

Fish

The fish population is fairly small and not very diverse. It has trout and smaller species, such as bullheads and minnows. Eels were apparent. Loach did previously exist but were not apparent in this survey.

Otters were present during the time of this survey and the non-native American Signal crayfish were also found at numerous locations.

Recommendations for future action

Working co-operatively with South West Water, the Environment Agency and respective landowners, the overall ecology of the river catchment could be greatly improved. Actions along the following lines, but detailed specifically to RLAG, will make this possible. It is hoped by the end of 2025 a review to date will be produced to monitor action and gauge improvements to the overall ecology of the catchment.

- 1 The sewage system needs repair and development and upgrading. Areas linking with storm influx need to be rectified.
- 2 Monitoring of water quality data ongoing particularly for E coli.
- 3 Farm improvements to be made in water separation systems and waste containment. Also, protection of riverbanks by cattle fencing in places. Land-fill sites to be advised.
- 4 Make lower barrier to fish and eels passable and ensure Middle Mill stream passable. Add eel pass on existing fish pass.
- 5 Start strategic Himalayan balsam control. Eradicate Japanese knotweed. Educate on trapping and restricting movement of crayfish.
- 6 In channel improvements to include the installation of debris dams (woody debris at strategic places). Some laurel canopy thinning.
- 7 Continue monitoring for macro-invertebrates to detect pollution and look more widely for stone loach.