WILD TROUT TRUST

Taunton Fly Fishing Club (TFFC), Wellisford, River Tone

An Advisory Visit by the Wild Trout Trust
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Introduction

This report is the output of a Wild Trout Trust visit undertaken to the River Tone at Wellisford, Somerset, (National Grid Reference: ST 09874 22095 to ST 10726 21385) in May 2021. The visit was requested by Taunton Fly Fishing Club (TFFC). The visit was primarily focussed on options to improve the river habitat for wild trout (Salmo trutta) and discuss sympathetic management strategies for the reach.

Comments in this report are based on observations on the day of the site visit, and discussions with TFFC members.

Throughout the report, normal convention is followed with respect to bank identification i.e. banks are designated Left Bank (LB) or Right Bank (RB) whilst looking downstream, the report starts at the upstream most point and works downstream.

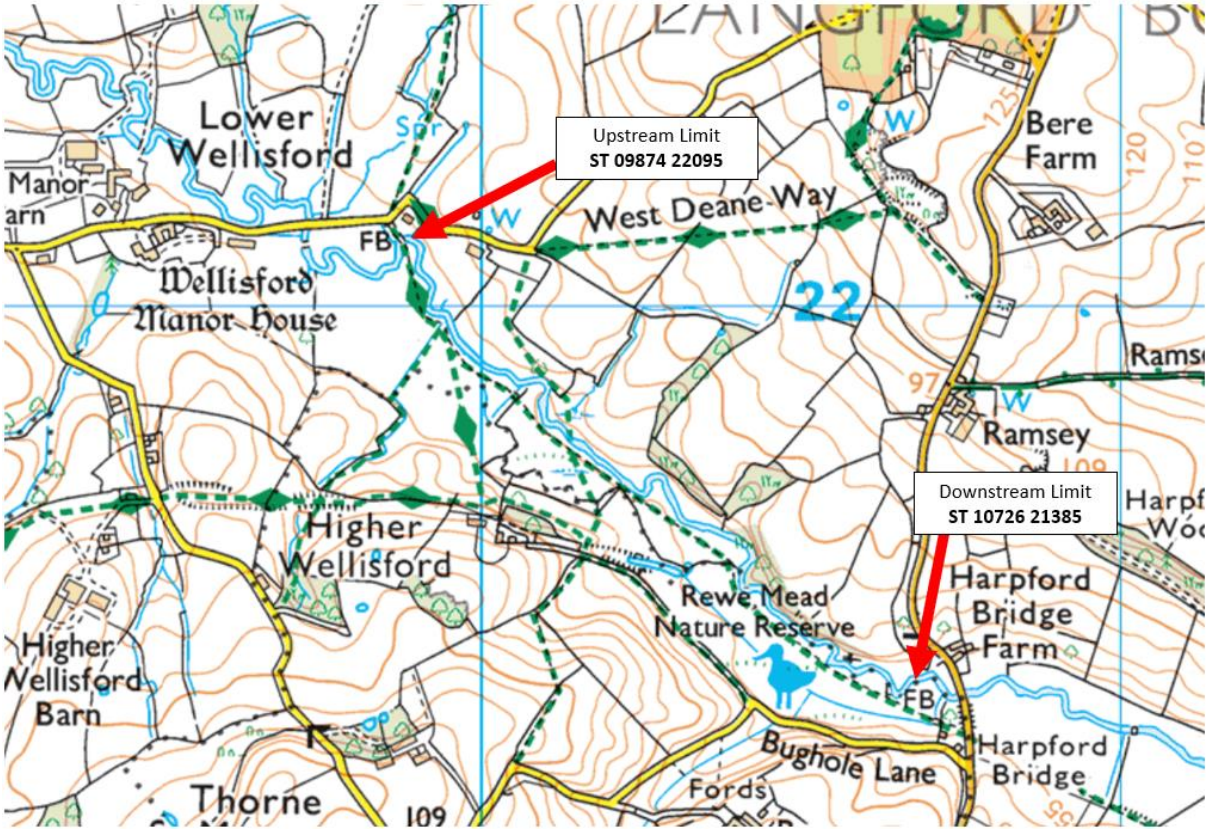

Figure 1: A map showing the section of the River Tone visited

Catchment and Fishery Overview

The River Tone originates at Beverton Pond in the Parish of Huish Champflower in the Brendon Hills to the south-west of the county. From this point the river flows south-east through a wooded narrow valley into Clatworthy reservoir, constructed between 1957 and 1959 and officially opened in 1961. From the reservoir the river flows south past the settlement of Huish Champflower. The river continues south within a steep sided wooded valley through Waterrow and then southeast through the parish of Ashbrittle. The course of the river demarcates the county border on the west side of the Parish of Stawley before turning north to run through the village of Greenham and past Cothay Manor. At Lutley Bridge, Stawley Parish, the river's course turns to the southeast through Langford Budville Parish and then northeast, past Tone and northeast through Nynehead Parish to Bradford-on-Tone. The river continues northeast to Bishops Hull Parish and then east to run through the centre of Taunton where the channel has been extensively straightened.

Significant tributaries in the north of the catchment include the Hillfarrance, Halsewater and Back Stream and, in the south, the Haywards Water, Three Bridges Stream and Sherford Stream.

The source in the Brendon Hills are largely formed from the Morte Slates, a thick faulted and folded sequence of Devonian age sedimentary rocks. It then flows through an alluvial floodplain underlain by sub-alluvial gravels, underlain by rocks of the Mercia Mudstone Group.

The upper river on which this visit was undertaken is used recreationally as a trout and grayling fishery, while the lower river is used as a more mixed fishery.

The river Tone water body classification is available on the Environment Agency website: Environment Agency - CDE - Tone - Upper (data.gov.uk)

Habitat Assessment

For the purposes of this report, the section of the river visited is described from the upstream extent of TFFC's water, at Wellisford, to the downstream boundary at Harpford bridge.

Trout according to the TFFC are abundant within the reach and the fishing and numbers of fish recorded are good. However, opportunities have been identified to improve the habitat for trout, and biodiversity in general, within this reach. The lower section is a nature reserve run by Somerset Wildlife Trust (SWT) which is situated on the former course of the Grand Western Canal: this is a conservation area primarily for species-rich wet grassland, which is a haven for plant and wildlife diversity.

On the day of the visit the river was notably high and coloured from recent rainfall (photo 1), with sediment loading very apparent in water of the same colour as the soil of the local area. On the way to the location of the visit, it was noted that some contour ploughing had been undertaken on a hill that was draining directly into the river (photo 2). This was not within the site visited, but it is an indication of some of the agricultural pressures the river system faces.

Photo 1: High sediment content within the floodwaters; livestock exclusion on the LB would be beneficial

Photo 1 also illustrates how uninterrupted grazing can supress the marginal plant communities and tree growth, reducing the bankside cover within this reach on the LB: a fence here would be beneficial.

Photo 2: Inappropriate contour ploughing where the rainfall is eroding the soil directly into the river

Photo 3: Large tree wedged in the channel providing good undershot scour and cleaning gravels.

Moving down the reach, a large tree had succumbed to recent floods, and is now providing some quality undershot scour, cleaning gravels and driving the bed down. This will provide good opportunities for trout spawning, and in time create a feature to fish to. Gifts from nature should be seen as a blessing and left unaltered if the farmer is amenable. If the farmer has concerns a few branches on the LB could be removed, to allow the river to flow around and under the tree. The majority of the tree should be left in situ to retain the habitat benefits.

Further down the reach more benefits can be viewed (photo 4) due to the TFFC's light touch management policy, with naturally fallen large woody material (LWM) which is hugely beneficial in terms of gravel scour as the river cuts underneath it. Features such as this should be conserved, and never removed: the variation in habitat that such natural features provide is very hard to replicate.

Photo 4: Large woody material collecting up and creating a pinch point, where gravel scour will be increased, top quality trout feature

Numerous woody habitat features, such as those shown photos 3 and 4, were noted within the reach. Once again, it is testament the club's beneficial management strategies that these features remain in place and are actively embraced as benefitting the wildlife of the river Tone.

Before moving into the lower section which includes the nature reserve, large stands of trees are growing uniformly within the fenced-off buffer strip on the RB (photo 5). There are instances where it would be beneficial to light the channel by selectively felling a couple of these trees. The arisings from this skylighting activity could be tethered within the channel using steel cable or using adjacent trees to lodge the wood in place: see the appendix for examples.

Photo 5: Uniform tree growth behind buffer fencing: targeted felling could benefit riverine habitats

The lower section of the river adjacent to the nature reserve was considerably more overgrown than the rest of the fishery (photos 6 & 7)., Although general wildness is beneficial to the river in most instances, as seen in the upper reaches, and some shade is necessary to keep the river cool, excessive tunnelling by trees as noted in the lower reach can be detrimental to the river's habitat. Much of this tunnelling could be addressed with strategic coppicing or hinging, to carefully provide some dappled light to the channel. This will also benefit other wildlife – a desirable outcome for the nature reserve run by SWT.

Hinging hazel coppice can be a useful management tool, creating low cover along the edges of the river while also benefiting the river's shade to light ratio.

Photo 6: Hazel could be coppiced and / or hinged to increase light in the channel

Photo 7: Much of the lower section has overstood hazel coppice, reducing light penetration.

On closer inspection of the marginal plants it was noticeable that there are considerable amounts of potentially very damaging Himalayan balsam (photo 8) mixed with the native plant communities.

'Himalayan balsam is the tallest annual plant in Britain, growing up to 3m high. Studies suggest that it can reduce native plant diversity by up to two-thirds: first shading out native species, then out competing them for the attention of bees and other pollinators with its long flowering time and plentiful nectar. Native insect numbers are also reduced' (extract from The Pocket Guide to Balsam Bashing - T. Pike).

Himalayan balsam will increase sediment loading within a river as the plants die back in the autumn and banks are left exposed to erosion: combined with some of the farming practices observed, this leaves the river vunerable to sediment pollution and the impacts of silt on spawning gravels. The balsam problem will not be localised to this area: it will almost certainly be originating from upstream in the headwaters, and the club should seriously consider becoming part of a catchment-wide effort to eradicate it from the headwaters downstream.

SWT would no doubt also be interested in a concerted effort in reducing balsam as it will threaten to degrade the biodiversity of their wet grassland nature reserve.

Photo 8: Invasion by Himalayan balsam plants can reduce biodiversity dramatically.

Recommendations

In order for the resident brown trout population and migratory sea trout in the upper Tone at Wellisford to reach its full potential, the following actions are recommended:

- Continue to employ light touch management, e.g. leave fallen trees in the river. If a tree does fall in a place where it might cause a problem, give it a couple of floods to see how it settles. After this, and if the tree is problematical, move it into a more favourable position and secure it with steel cable to retain the ecological (and fishery) benefit.

- Where tree cover is very dense and the river is over-shaded (indicated by a noticeable absence of aquatic vegetation), instigate light tree works to open up some occasional skylights in the canopy (mainly in upper section). The arisings from these works could be installed as habitat features within the channel, either cabled or lodged as viewed in appendix photos 9-11. More information on trees and rivers can be seen here Trees and Rivers | Wild Trout Trust

- If agreed with SWT a programme of rotation of coppicing works focussing on the southern banks, with the aim of introducing light over shallow, faster-flowing sections. Try to retain as much low-lying cover as possible, especially over good pools. This activity is likely to be focused on the lower end of the reach within the nature reserve: engage with SWT so the activities can be used to benefit both parties.

- The coppicing works (mostly hazel) could be used some to boost habitat instream by hinging (see appendix photo 12) into the channel in a downstream direction. Such trees should be carefully selected for optimal benefit, in consultation with WTT to select the best opportunities.

- Engage with farmers in a proactive way, to attempt to co-exist without conflict: this could include applying for some fisheries improvement funding (FIP) to fence or refence sufficient buffer strips, including cattle drinking areas, which could benefit both parties.

- Encourage work aimed at improving water quality: this could involve the Westcountry Rivers Trust (WRT) undertaking some wet weather walks to map sediment ingress from unsustainable farming practices. Also report any incident that involves a breach in the farming rules for water (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/695598/farming-rules-for-water-policy-paper-v2.pdf) to the EA pollution hotline 0800 80 70 60.

- Find out if there are any schemes to control Himalayan balsam within the catchment, possibly through the SWT or the WRT, and work with other landowners, fishing clubs and community organisations to clear this invasive species strategically from the top of the catchment downstream. Targeted 'balsam bashes' on the reach may also help to protect particular areas of value but should not be seen as a substitute for a top-down, catchment-scale strategy. There are examples elsewhere of near eradication of balsam (e.g. on the River Monnow), though the approach must be strategic and persistent. The SWT should be engaged as this would no doubt benefit their nature reserve.

Making It Happen

Further assistance from the Wild Trout Trust is available in the form of:

- Help obtaining the necessary consents for carrying out in-stream works, from either the local authority or Environment Agency (depending upon whether the river is designated Main River or not).
- A practical visit, which involves a visit from a WTT Conservation Officer to demonstrate the habitat improvement techniques outlined. This enables recipients to obtain on the ground training in the appropriate use of conservation techniques and materials, including Health & Safety, equipment, and requirements. This will then give projects the strongest possible start leading to successful completion of aims and objectives. Recipients will be expected to cover travel expenses of the WTT attendees.

The WTT website library has a wide range of free materials in video and PDF format on habitat management and improvement: http://www.wildtrout.org/content/library

The Wild Trout Trust has also produced a 70 minute DVD called 'Rivers: Working for Wild Trout' which graphically illustrates the challenges of managing river habitat for wild trout, with examples of good and poor habitat and practical demonstrations of habitat improvement. Additional sections of film cover key topics in greater depth, such as woody debris, enhancing fish stocks and managing invasive species.

The DVD is available to buy for £10.00 from our website shop https://www.wildtrout.org/shop/products/rivers-working-for-wild-trout-dvd or by calling the WTT office on 02392 570985.

Acknowledgement

The Wild Trout Trust would like to thank the Environment Agency for their continued support of the advisory visit service.

Disclaimer

Appendix

Photo 9: Lodged woody material, the most natural of methods to mimic naturally fallen trees, wedged in another tree to secure it with no other materials required.

Photo 10: Another example of lodged woody material wedged between tree trunks to brace it against flows, as secure as any posts and wire or cabling.

Photo 11: A tree kicker cabled to an existing tree stump on the River Yeo. Kicker tethers should be as short as can be realistically achieved: apart from too much metal cable being unsightly and unnatural, the risks of the trees being stranded on the banks in floods are significantly increased. Hiring or investing in a hand winch would allow the kickers to be winched back toward the stump, reducing the amount of cable needed, which in turn will reduce the likelihood of the kicker being stranded on the bank after high flows.

Photo 12: Hinged hazel can be a good method for lighting the channel and improving habitat