



River Ebble – Homington



An advisory visit carried out by the Wild Trout Trust – March 2009

1. Introduction

This report is the output of a Wild Trout Trust advisory visit undertaken on the River Ebble at Homington in Wiltshire. The advisory visit was carried out at the request of Mr. Vince Ryalls who helps to manage and maintain the fishery on behalf of the owner Sir Hayden Phillips.

The Ebble has a reputation for being a first class wild trout (*Salmo trutta*) fishery and recently the Environment Agency (EA) consulted local fishery owners and managers over designating the river as a Wild Fishery Protection Zone under the provisions set out in the National Trout and Grayling Fisheries Strategy. This effectively means that it has been recognised that stocking the river with fish is both unnecessary and potentially damaging and any future applications to introduce fish will no longer be consented by the EA.

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.

2. Catchment overview

The River Ebble is one of the five rivers of Salisbury. Rising at Alvediston 12 miles to the west of Salisbury it joins the River Avon 2 miles south of the city at Bodenham. The river displays many classic chalk stream characteristics such as clear water, low soft margins and in-channel plant communities dominated by water crowfoot (*Ranunculus aquatilis*), starwort (*Callitriche stagnalis*) and water moss (*Fontinalis antipyretica*). Unlike the chalk rivers found further to the east, the Ebble flows through a mixed geology, including gault clays and greensand bedrock which gives rise to a greater variation in flows compared to the chalk rivers in Hampshire. As with most lowland rivers in the South the channel is heavily modified and in-channel habitats are influenced by the numerous structures, many of which on the Ebble have been installed to irrigate old adjacent water meadow systems.

3. Fishery overview

The River Ebble at Homington is currently used and managed as a non commercial wild trout fishery. Management and maintenance of the channel and margins has been carried out sensitively with the wider conservation interests of the river and its corridor taken into consideration. The whole farm through which this section of river flows is managed organically and some sections are thought to be in Countryside Stewardship.

The fishery currently extends to approximately 1 mile of mainly double bank fishing. Some mowing and clearance of the LB has been undertaken to provide access for bank-side fly fishing but where this has been carried out the opposite margin has been left largely unmanaged. The current owner and fishery managers are keen to establish a maintenance regime that is in the best interests of the wild trout fishery and have no desire to necessarily generate extra income from the fishery or to intensify the current angling activity.

4. Habitat assessment.

4.1 Side-stream

At the upstream boundary of the fishery a small side-stream enters the river on the LB. This stream was walked to evaluate its potential as a spawning and nursery stream. Lying at the very upstream boundary, production of juvenile trout here will help to populate main river sections found further downstream.



Bottom end of the side stream joining the main river at the head of the fishery

The side stream running parallel with the road is currently too wide and flat in terms of gradient to provide much in the way of suitable spawning habitat. Where cress beds were starting to establish and naturally pinch the channel some thin layers of gravel were observed but the bed predominantly consisted of sand and silt. The channel was dominated by emergent vegetation including water cress (*Rorippa nasturtium-aquaticum*) and reed sweet grass (*Glyceria maxima*).

At the top end of the meadow the stream was shaded by a stand of low scrubby willows (*Salix caprea*) and here there were observed a few juvenile trout. The entire stream's left margin was freely available to grazing cattle and it is likely that the channel width has been widened due to cattle poaching pressures. Restricting access for grazing cattle to large sections of the stream will enable

the channel to naturally recover, pinching the stream and locally increasing water velocities which in turn may help to expose suitable gravels for spawning.

Further up and on the opposite side of the road the stream is impounded by a level control structure which has been installed to divert water through an adjacent ornamental lake.



[Water level control structure installed to create a head of water to feed an adjacent lake](#)

During heavy autumn flows it is possible that fish undertaking upstream spawning migrations may be able to swim over this structure. The height of the impoundment appeared to be in excess of 300mm which could deter small brood fish from being able to negotiate the weir in a low flow autumn. Consolidating the flow by notching one of the boards to create a solid plume of water will help to ease access for adults swimming upstream and provide an obvious escape route for juveniles as they descend (See recommendations).

It is recommended that further inspections of the stream are made above this section to evaluate the presence of potential spawning and nursery habitat. Side streams, carriers and small loops off the main channel are often preferentially chosen for spawning rather than main river locations. The shallow intimate habitats found on side streams are often a less intimidating and safer environment for small juvenile fish where they can escape the attentions of larger predatory species, including adult trout that inhabit main river locations.



A short section of the side stream where a scrubby margin of willow is providing winter cover for trout

4.2 Main river

A road bridge marks the top boundary of the fishery. Where the river pushes through under the bridge a deep scour pool has formed. Gravel blown out from the river bed below has formed a gravel bar further down at the tail of the pool, creating some valuable habitat. These upward sloping ramps make superb spawning sites and are often heavily used in the winter by trout for spawning purposes.

In addition to the excellent spawning opportunities there is also a thick scrubby margin on the RB providing ideal cover for juvenile trout. This area could be further enhanced through the provision of some large woody debris (LWD) pegged to the river bed in one or two locations to promote further scour and loosening of the river bed gravels.

Access for angling is mainly carried out from the LB and long sections have been fenced off to restrict access for cattle. In such areas it is important to actively manage the banks to ensure that the margin does not succeed to willow and alder scrub. This does not mean that banks should be regularly mowed or the marginal fringe cut back but that the valuable wet meadow plants usually associated with chalk stream margins are given sufficient light and space to flourish. If a mowed path is required for foot access it should be set well back from the bank, preferably just inside the fence boundary. Occasional spines can be trimmed out to allow access to preferred angling vantage points. Much of the

river could be easily accessed via wading. This would have the benefit that no intensive management of the LB margin is required to facilitate angling.



Excellent spawning habitat on the tail of the glide and first class cover for juvenile trout under the RB margin. Trout heaven!



LB margin protected from cattle damage by fencing. This section could easily be fished from the bank or via wading with minimal maintenance then required.

There were numerous examples of good quality spawning, nursery and adult holding habitats. The light touch approach currently given to the maintenance of marginal cover ensures that the fishery as a whole will retain excellent densities of trout. Far too often chalk streams in the south are manicured to the extent that virtually no habitat exists for wild stocks. Leaving areas where a fly cannot be cast onto the water will provide a valuable refuge for trout and ensure that good numbers remain in residence. Trout left to reside undisturbed potentially gives them the opportunity to grow on to become large fish. The removal of one particular twig may be all that is required to make a run fishable but still retain the bulk of the refuge that is so important to the well being and comfort of the fish.



A low scrubby thorn tree waiting to come into leaf and provide a roof and larder for a trout.

Retaining low scrubby cover is also very important over shallow margins where juvenile trout often reside. A tangle of low branches can often deter avian predators and provide a comfortable haven for trout. When margins are cleared bare of both weed and woody debris the net result is often a migration of fish out of the reach to sections where there is better quality habitat.



Another great example of excellent marginal habitat. Sufficient light to promote in-channel weed growth and a tangled margin of scrub to provide a safe refuge.



An area of bramble and scrub on the outside of the bend on the LB. Perfectly fishable via wading

There was some discussion about clearance of scrub on the LB (photo above). As already discussed, allowing the whole margin to revert to scrub is undesirable although leaving the odd patch to develop will provide some diversity in marginal habitats both for fish and other species. Striking the right balance with bank-side maintenance regimes can be extremely difficult. Leaving small blocks of scrub to develop, particularly on the outside of bends, can help to knit the bank together and proved valuable protection against erosion during flooding events, as well as providing all important habitat diversity. Encouraging a more diverse range of marginal habitats should not be too prescriptive or contrived. The very bottom section of river for example is very open, with very little in the way of marginal tree cover. Never the less, this section provided some excellent marginal habitat in the shape of thick fringes of sedge (*Carex sp.*), sweet reed grass (*Glyceria maxima*) and bur reed (*Sparganium erectum*). The low soft margin would not benefit from wholesale tree planting and the excellent growth of in-channel weed provides plenty of cover for fish.



A short distance upstream from the hatches where the margin is relatively hard and possibly made up from dredged river bed material it may be pertinent to carry out some limited tree planting with locally procured willow whips. These should be the small goat willow or sallow. These open hard margins are poor environments for wet meadow plants and can be prone to erosion. The odd willow dotted here and there will provide great lies for adult trout and help to defend the outside of vulnerable banks from erosion.



Sections like this LB margin would benefit from one or two water level willow whips being planted to provide holding habitat for adult trout and protection against bank-side erosion



An old water meadow hatch just above the bottom meadow. The paddles from the hatch have been removed and should not be replaced.

Just above the bottom meadows there is an old water meadow hatch structure. Paddle boards have been removed and were apparently damaged following a flood event. The river bed upstream of the structure has benefitted from the increased water velocities promoted by the removal of the boards and it is recommended that no paddles, gates or boards are refitted to this weir in the future.

The bottom section of river provides some alternative habitats from the sections found further upstream. The exclusion of cattle via fencing may promote rapid scrub development unless regular maintenance is carried out. Allowing the odd beast into the marginal zone from time to time to graze and maintain the low boggy margin will help to reduce maintenance requirements and promote this alternative but extremely valuable habitat.

5. Conclusions

The Ebble at Homington is a true chalk stream gem and thoroughly deserves the reputation it has as one of the best wild trout fisheries in the South. The current management and maintenance regime is very sympathetic to the needs of wild trout and there were plenty of examples of high quality habitats for all life stages.

To build on the work already carried out and to improve the fishery further it will be necessary to concentrate on a few key areas. The Ebble has now been designated as a Wild Fishery Protection Zone where the stocking of trout will not be consented by the EA. It is therefore vitally important to ensure that the wild component of the stock can flourish.

A potential bottleneck in developing healthy wild stocks on chalk streams is poor spawning success due to low survival rates of eggs laid down in chalk stream gravels. Ensuring that potential spawning sites are in good condition is therefore critically important.

The beat at Homington may well benefit from the downstream drift of displaced juvenile trout from high quality spawning sites found further upstream. It would be sensible however to concentrate efforts on improving spawning habitats at the very top end of the Homington beat in order to guarantee the production of stock for the fishery as a whole. To this end a programme of spawning improvements on the shallow riffle sites found in the top 500m of main channel is recommended. The small side stream joining the main channel also has the potential to "stock" the main river with small trout but it does need some attention. Narrowing the channel and introducing some suitable spawning gravel at two or three locations to provide good quality spawning and nursery areas would be relatively cheap and easy to achieve. It will however, be necessary to exclude cattle from these sites with either temporary or permanent fencing.

This small stream may also have better quality spawning areas further up the valley and modifying the boards in the weir adjacent to the off-line lake may help with autumn spawning migrations. Cutting a small vertical slot or notch in the centre of the board to promote a narrow flume of water over the structure will allow fish to move up and utilise habitats further upstream.

To improve spawning success on the main river riffles it is recommended that some Large Woody Debris (LWD) is pegged down on the shallows to promote local scour and sorting of river bed gravels. This technique is very simple and effective and can also have the knock on benefit of providing some small pocket pools where fish will lie up in the summer.



A piece of LWD pegged to the river bed with steel bar and configured to promote river bed scour downstream of the structure. This invariably blows up a small ramp of clean loose gravel that is ideal for spawning. This technique would work very well on the Ebbles

Another well tried and tested technique is to physically loosen and remove sediments from gravels in the early autumn using modified high pressure pumps or portable back pack leaf blowers. This should be carried out in late September or October prior to the trout spawning season. A maximum of 25% of riffle areas should be done annually on a rotational basis. Observation of the river for redds in the winter to see which areas are used by spawning trout can be used as a guide for where to clean gravels in the subsequent year. Raking or breaking up the gravel using garden forks to turn over gravel to a depth of 20 – 30 cm is a useful alternative. Both techniques should be carried out working in a downstream direction.

Details of all these techniques can be found in the WTT Chalk Stream Habitat Manual. Consents from the EA may be required prior to undertaking any of these works.

Overall the balance between providing access for angling and maintaining suitable cover for fish has been successfully achieved. Paths cut for access should be away from the top of the bank and consideration should be given to

leaving both margins unmanaged on some sections where angling could be undertaken by wading. Low scrubby marginal cover is a particularly important habitat and should be retained whenever possible. On some sections of hard bank, where there is little in the way of marginal trees or shrubs and where the bank is too high and hard to support marginal emergent vegetation then it might be appropriate to plant some goat willow whips a few centimetres above average summer levels to provide improved holding water for adult trout. In sections that have been fenced off from livestock it will be important not to let long reaches develop dense scrub. It is a good idea to allow some short sections to be left totally unmanaged but on those reaches where the banks are reasonably low and soft it is appropriate to protect and develop habitats which support wet meadow plants. Providing temporary access for low numbers of grazing animals into the fenced off sections is a good method of controlling scrub.

It is a legal requirement that some works to the river may require written Environment Agency consent prior to undertaking any works, either in-channel or within 8 metres of the bank. Any modifications to hard defences will require a land drainage consent on any river designated as "main river". Advice can be obtained from the Development Control Officer.

6. Recommendations

- Improve the spawning potential of the top 500-m section by strategically pegging down LWD onto selected shallow gravelly sections.
- Consider carrying out some early autumn gravel cleaning to improve spawning success.
- Improve the output of juvenile trout from the small side stream by improving upstream access for migrating adult trout.
- Create two or three new spawning habitats on the lower section of the side stream by pinching the channel and introducing gravels. Seek specialist advice in undertaking this work.
- Retain woody brushings over shallow nursery habitat to reduce bird predation pressures.
- Leave low overhanging marginal cover whenever possible but do not allow low soft margins to completely revert to scrub.
- Undertake a modest programme of tree planting with willow or goat willow *Salix caprea* at water level on sections where the banks are comparatively high, hard and bare. Two or three whips pushed into the margin at 45 degrees are all that is needed. This is particularly effective on the outside of bends.
- Do not be tempted to put boards back into any of the old in-channel weirs or structures.

6. Making it happen

There is the possibility that the WTT could help to start an enhancement programme. Physical enhancement works could be kick-started with the assistance of a WTT 'Practical Visit' (PV). PV's typically comprise a 1-3 day visit where an approved WTT 'Wet-Work' experts will complete a demonstration plot on the site to be restored. This will enable project leaders and teams to obtain on the ground training regarding 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.

The WTT can fund the cost of labour (two/ three man team) and materials (max £1800). Recipients will be expected to cover travel and accommodation expenses of the contractor.

There is currently a big demand for practical assistance and the WTT has to prioritise exactly where it can deploy its limited resources. The Trust is always available to provide free advice and help to clubs, syndicates and landowners through guidance and linking them up with others that have had experience in improving trout fisheries.

Acknowledgement

The WTT would like to thank the Environment Agency for supporting the advisory and practical visit programmes.

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