



# WILD TROUT TRUST

**River Brit, Slape Manor**



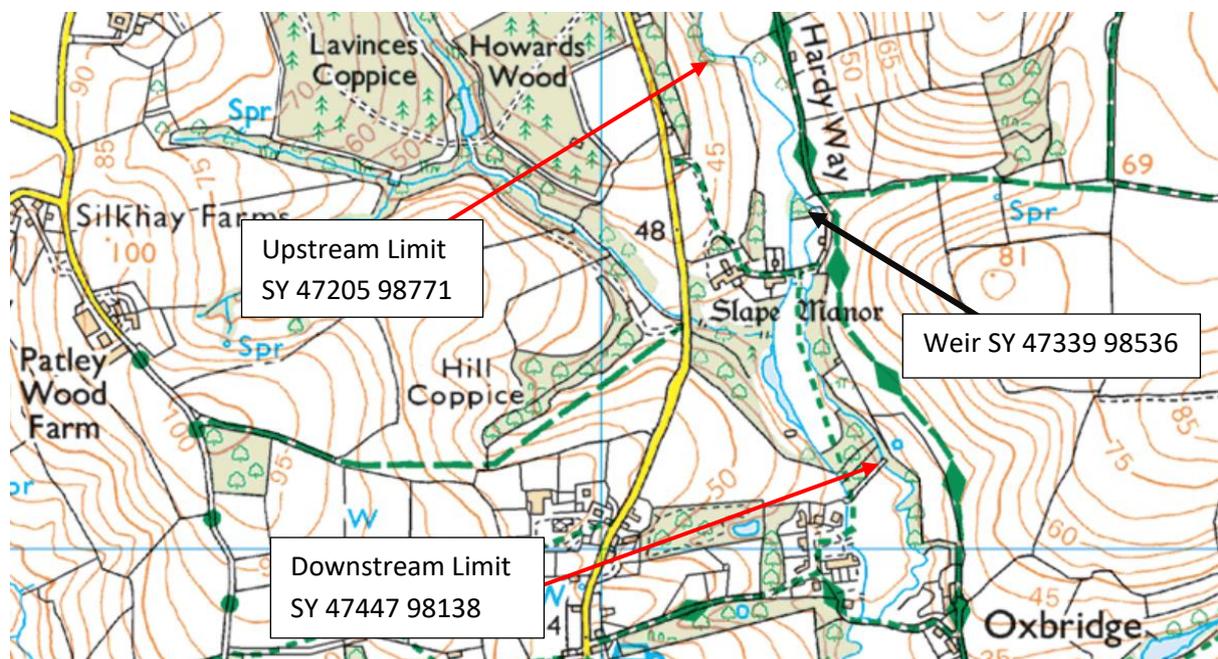
**An advisory visit by Nick Lawrence of the Wild Trout Trust, January 2021**

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## Introduction

This report is the output of a visit undertaken by Nick Lawrence of the Wild Trout Trust (WTT) to approximately 800 meters of the River Brit at Slake Manor, Dorset (national grid reference (NGR) SY 47205 98771 to SY 47447 98138). A walk over of the site was requested by the owner and estate manager. WTT were asked to assess opportunities for habitat enhancement and discuss maintenance regimes.

Comments in this report are based on observations made during the site visit. Normal convention is applied with respect to bank identification, i.e. left bank (LB) or right bank (RB) whilst looking downstream. Upstream and downstream references are often abbreviated to u/s and d/s, respectively, for convenience. The Ordnance Survey National Grid Reference system is used for identifying specific locations. The walk-over assessment started at the upstream end of the reach and worked downstream.



Map 1: Showing the location of the walkover on the River Brit.

<b>River</b>	River Brit
<b>Waterbody Name</b>	River Itchen
<b>Waterbody ID</b>	GB108044009600
<b>Management Catchment</b>	West Dorset Rivers
<b>River Basin District</b>	South West
<b>Current Ecological Quality</b>	Moderate
<b>U/S Grid Ref inspected</b>	SY 47205 98771
<b>D/S Grid Ref inspected</b>	SY 47447 98138
<b>Length of river inspected</b>	0.8 km

**Table 1. Overview of the waterbody. Information sourced from:**  
[Environment Agency - CDE - Brit \(Upper\) \(data.gov.uk\)](https://data.gov.uk/dataset/cde-brit-upper)

### **Catchment Overview**

The River Brit is a short (approximately 10 miles) river. It rises just north of Beaminster and flows south to Netherbury and Bridport where it is joined by tributaries; the river Simene and river Asker. South of Bridport it reaches the South Coast at West Bay.

The river takes its name from the town of Bridport, which in turn derives from the River Bride, the neighbouring drainage basin to the east, which has connections with Bridport's early history. Before the establishment of Bridport, the Brit was named the River Wooth. This is still reflected in the names of settlements, such as Wooth Manor and Camesworth.

The river has infestations of Himalayan balsam plants on its banks. It was historically polluted by the local hemp and flax industries and by sewage discharges, but the environment of the river has improved in recent years.

Fish species found include stone loach, minnows and healthy brown trout populations. Sea trout frequent the estuary and lower river, however the series of weirs along the course of the river Brit interrupt natural sediment transport, resulting in a less mobile bedload and generally suppressed morphology through the affected reaches. This is likely to impact on the abundance and quality of spawning habitat for both sea trout and resident brown trout as well as other gravel-spawning species.

## Habitat Assessment

The upper most section has shared ownership, with the RB owned by Slape Manor and the LB owned separately. Both banks have benefited from very light touch maintenance, especially with regard to trees and woody material. Photo 1 shows a good example of low cover over a meander. The LB is completely unmanaged where the RB has been carefully managed, most notably for balsam. Note the lack of balsam stalks on the RB compared with the LB.



*Photo 1: Mixed species of willow and good low cover provided by the leaning willow on the RB, note Himalayan Balsam stalks on the LB.*

The adjacent land use differs on each bank, the LB is largely unmanaged, apart from the orchard, which is set back from the river; The RB is used for silage production. Intensive management of the meadow has led to a lack of tree cover and plant diversity. As discussed during the visit, the owners of Slape Manor would like to take the management of the meadow back in-house and increase biodiversity with the addition of a wildflower meadow. This would no doubt have a knock-on effect on the river with an improved flow of terrestrial insects from the land.

The Brit is an exceptionally spatey and highly erosive river, these factors combined with signal crayfish and HB, lead to high sediment inputs could be leading due to bank erosion and bank collapses (photo 2).



*Photo 2: High quality low willow cover on another meander, note the natural bank slumps on the RB.*



*Photo 3: High quality woody material naturally accumulating in the channel.*

The bank slumps could be shored up by some tree planting with either willows or alder, to secure the bank. When these trees mature, they will become welcome additions to the landscape and biodiversity.

The presence of HB within a catchment, can increase the sediment input to a river. When the plants die back in the autumn, banks are left exposed to erosion. The balsam infestation is unlikely to originate in this area, it will be sourced originally from upstream.

“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 pocket guide to Balsam Bashing T. Pike).

Slape Manor have done an excellent job of controlling HB locally, but the best approach should be a catchment-based solution from the headwaters to the bottom of the river (source to sea).

Progressing down the upper section, instances of naturally accumulating woody material were common (photo 3). This willow is now providing valuable refuge for fish and invertebrates. These instances have been left to accumulate by sensible light touch management, ensuring that tidiness does not overcome habitat.

With woody habitat accumulating well from the unmanaged LB, the RB could be improved by simply changing the land use with a thicker buffer area 10 meters from the river edge. If left to nature with some additional tree and marginal planting, this bank could provide good quality habitat diversity along the river's edge, with the bonus of providing many terrestrial insects for the fish. HB will still need to be controlled to ensure it doesn't out-compete the new marginal vegetation.

Photo 4 shows the difference between a managed and an unmanaged bank, although HB is well managed on the RB, the land use leads to a loss of tree diversity and marginal plants due to the silage production.

During the visit, land use was discussed and this silage field (photo 5) is potentially going to be taken back in house and managed more sensitively as a wildflower meadow. A larger light-touch management area (10m) should be considered adjacent to the river to provide better habitat niches, encouraging marginal flowering vegetation and scrub.



*Photo 4: A stark difference between managed bank on the RB and unmanaged on the LB, note exposed soil from infestations of HB on the LB.*



*Photo 5: The silage field RB – largely a monoculture of grass.*

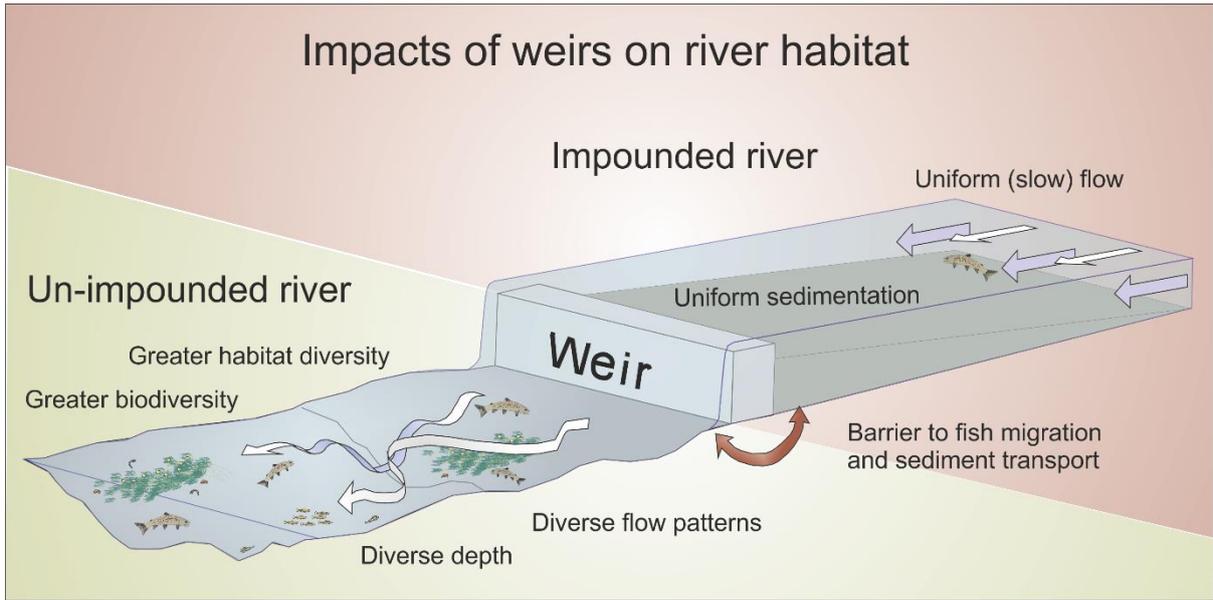
Halfway along the reach is an old weir (Photo 6, SY 47339 98536), which has led to a devastating loss of habitat for some distance upstream. The river has been robbed of its natural flow, and sediment has been deposited on the bed of the river in large quantities, smothering the gravels and restricting the natural processes of the river. Unable to be viewed within the visit but confirmed by the estate manager.

This weir is also an impassable barrier to fish. Fish need to migrate for reasons such as spawning, dispersal to find more space, and to find better places to feed. This barrier is stopping those migrations. It will affect local populations of brown trout and particularly the migratory species such as sea trout, eel and lamprey.



*Photo 6: The old weir upstream of River Cottage, an impassable barrier to fish.*

As the weir is no longer required, the redundant structure should be removed. The leat it once fed has long since dried up and vegetated over. The removal of this structure would restore natural processes to the river upstream and reinstate free passage to all fish. Photo 7 shows how weirs negatively impact local morphology and ecology.



*Photo 7: Diagram explaining how weirs degrade habitats.*

Downstream of the weir, the river reverts to a more naturalised system, with dynamic erosive processes in place and improved marginal vegetation. In front of River Cottage (photo 8), a lush thick marginal fringe of sedges was observed, something notably absent upstream of the weir, possibly due to the unnatural impounded channel.



*Photo 8: Lush marginal growth and quality scrub habitats developing behind the fencing.*

The fence on the RB (photo 8) buffers the riverbank from the silage meadow allowing some scrub habitats to develop. This in time will add more valuable woody material to the river in areas that can be utilised by trout. The river here and downstream of River Cottage, starts to display more natural features such as meanders with deep holes and long shallow riffles.

The banks are seemingly very unstable, possibly partly due to previous HB infestations and apparently present are large amounts of signal crayfish. The soil is particularly sandy throughout which may well account for the unstable nature.

Signal crayfish were introduced to the UK for food in the late 1970s and 1980s but spread quickly across much of the UK. They spread up and downstream and may cross land to colonise adjacent water bodies. Negative impacts include the almost complete loss of the native crayfish through the spread of disease and direct competition. When in high numbers they can undermine riverbanks through burrowing and can predate on native fish eggs and aquatic invertebrates. Although unconfirmed, the crayfish may be contributing to the bank instability at Slape Manor (photo 9). Localised areas of occasional bank slumping like this can be perfectly natural during particularly wet conditions and are not something to be very concerned about as they help to develop channel diversity. However, if large sections of bank start to become destabilised it may be worth looking at options to stabilise them.

Unfortunately, trapping has little positive effect on populations of signal crayfish and may well make the problem worse as trapping only catches adults. Until better bio-control measures are developed, there remains no viable solution populations may be best left to self-regulate.



*Photo 9: A recent bank slip now exposed to some spate conditions on the river Brit.*



*Photo 10: Fantastic sour pool around alder root systems, perfect for adult fish refuge.*

As the visit moved into the lower section, the natural erosive processes of the river cut under tree roots and scoured out deep holes (photo 10). These are ideal areas for larger adult trout. This lower section has many of the building blocks for good trout habitats.

Instances such as photo 10 are common in the lower reach, where the powerful river has scoured under and around the tree's root structure, contributing to the formation of quality pool features which larger trout will thrive in.

Towards the bottom of the reach, a plantation woodland was situated on the RB. Although this was generally native species planted sensitivity, the laurel within the woodland is undesirable. Laurel is now naturalized within the UK but is highly invasive, particularly in woodlands and along riverbanks where it often grows unchecked. It outcompetes native plants and understory species by overshadowing them.

Laurel within a riverbank environment will inhibit scrub species such as willow, alder, hawthorn and blackthorn, species that do far more for biodiversity than laurel.



*Photo 11: Laurel spreading from the woodland and threatening the biodiversity of understory and riverbank.*



*Photo 12: Erosion against the LB leaving the walkable boundary path vulnerable.*

The lowest section of the fishery is suffering from erosion problems, mainly due to the lower boundary on the LB being very close to the edge of the river. The walkable path in photo 12 is very close to being lost. This erosion problem could easily be slowed down with the use of a willow mattress as shown in the appendix (photo 13) and may well consolidate with fine sediment to solve problem completely.



*Photo 12: Erosion right of shot (on the LB). could be reduced by hinging in willow as annotated by red arrow.*

Next to the bridge at the lower boundary, another erosion issue is threatening to bypass the bridge, this again could be solved with some cleverly placed woody mattress or, alternatively, there is a tree that could potentially be hinged into the problem area. Pictures of a hinged tree are exhibited within the appendix (photo 14) which can be used for reference purposes.

## Recommendations

In order for the resident brown trout in the Brit at Slape Manor to reach its full potential in rich and biodiverse habitat, the following actions are recommended:

- Invite an Environment Agency representative to the reach for an assessment and discuss the possibilities of weir removal complemented by a restoration project around the weir to account for water headloss. Discussions should be had with a geomorphologist to assess feasibility and see whether EA funding might be available. WTT would be happy to act as a broker to help this meeting happen.
- Continue to employ light touch management, e.g. leave fallen trees in the river. If the tree is problematical, move it into a more favourable position and secure it with steel cable to retain the ecological benefit.
- Find out if there are any schemes to control Himalayan Balsam within the catchment, possibly through the local wildlife trust or the Westcountry Rivers Trust, 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' have helped to protect particular areas of value but should not be seen as a substitute for the top-down catchment-scale strategy. There are examples elsewhere of near eradication of balsam (e.g., on the River Monnow), but the approach must be strategic and persistent.
- Consider changing the management regime within the meadow on the upper RB (SY 47216 98491 - SY 47155 98755) to a wildflower meadow. This in conjunction with a wilder light touch management strip (10 m) along the edge of the river. Supplementary planting of wild British waterside flowers such as like yellow flag iris, great willowherb, meadowsweet, purple loosestrife, water forget-me-not, mimulus and watermint could be used as a basis for this wilder strip.
- In the few areas where unwanted erosion is present such as the footpath at the lower end of the reach, use strategically placed woody structures (as seen in appendix) to consolidate and protect banks that are vulnerable.
- Where bank collapses are occurring shore up the unstable banks with some tree planting possibly alder or willow. Other rarer trees such as black poplar and elm (disease resistant strains) are now being planted due to their heritage value.

## **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 Ordinary Watercourse).
- A practical visit, which involves a visit from a WTT Conservation Officer to demonstrate the habitat improvement techniques outlined above. 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: [www.wildtrout.org/content/library](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 material, enhancing fish populations and managing invasive species.

The DVD is available to buy for £10.00 from our website shop [www.wildtrout.org/shop/products/rivers-working-for-wild-trout-dvd](http://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**

This report is produced for guidance; no liability or responsibility for any loss or damage can be accepted by the Wild Trout Trust as a result of any other person, company or organisation acting, or refraining from acting, upon guidance made in this report.

## Appendix



*Photo 13: Willow mattress used to protect and reduce erosion near a track.*



*Photo 14: Hinged willow. Hazel, small willows and small alders can be hinged into a river, creating diversity of flow and in-stream cover for fish. The trees are hinged in a similar manor to hedge laying, where the tree is partially cut through at the base and laid into the margins. Chestnut stakes and fencing wire or sisal rope can be used to secure the trees in place. Willow will survive perfectly well even with 70% of the branches submerged; however, hazel and alder should be laid to retain much of the structure above water level.*



*Photo 15: 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.*