

**SLAMANNAN ANGLING & RIVER PROTECTION ASSOCIATION**

**RIVER AVON  
WEST LOTHIAN, SCOTLAND**

**ADVISORY VISIT REPORT**

Undertaken by Ron Holloway MIFM On behalf of

**THE WILD TROUT TRUST**  
20<sup>th</sup> March 2005



**RIVER AVON SLAMANNON**

**RH ASSOCIATES**  
Magdalenehall Farm  
St Boswells  
Scottish Borders TD6 0EB  
Tel:- 01835824387  
e-mail [ron.holloway@btinternet.com](mailto:ron.holloway@btinternet.com)

## **SLAMANNAN ANGLING & RIVER PROTECTION ASSOCIATION**

This advisory visit was undertaken by Ron Holloway MIFM on Sunday 20<sup>th</sup> March 2005 in the company of George MacIntosh and the President and a committee member of the angling club.

### **OBJECTIVE OF THE VISIT**

The objective of this advisory visit is to pin point and identify any limiting factors that may be controlling the natural survival of the wild resident stocks of brown trout. To suggest and advise on any measures that can be taken to protect and enhance the habitat and holding capacity of river for wild trout.

### **BACKGROUND**

The river Avon was heavily dredged some years ago under the government subsidised land drainage schemes. The river bed was removed and placed alongside the river leaving a realigned river channel with little or no fish habitat. This was followed by substantial open cast mining operations, which exerted further pressures upon the natural habitat of the river. Since the demise of the mining the upper catchment of the river has returned to agricultural regimes of grazing and arable farming. The river is naturally trying to return itself to its original state but without some help this will take a long time. However with some human help and guidance the river can once more become a more productive self-sustaining wild brown trout fishery. The angling club has had access to the river for some 60 years and now wishes to improve the survival of the resident wild brown trout and to reduce the stocking program. The club has stocked the water regularly each year with 500 10” to 12 “ trout from the Howietown hatchery. Anecdotal evidence shows that some numbers of genuine wild trout of about 6” are caught each season with the occasional 12” being taken. This indicates that there is some natural reproduction within the system. Further more anecdotal evidence indicates that there is a good diversity of aquatic insects with regular hatches of green drake, March brown, winter olive, medium olive and black gnats with light hatches of sedge. Water quality therefore must be adequate. Unfortunately low summer flows can reduce the water levels and large areas become unfishable due to there being very few deeper holding areas .

## **DISCUSSION & SUGGESTIONS**

The club has installed several low rock weirs to create deeper areas and to liven up the flows. Where these have been constructed they are doing a good job. However it is suggested that in future any weirs should be constructed in a more advantageous shape i.e. in an upstream pointing fashion (see picture 2 below). This shape will at all levels of low flows direct the water towards the centre of the stream, which will protect the downstream banks from erosion.



**PIC 2 Upstream pointing weirs**

Furthermore by diverting the flow towards the centre of the stream this will encourage the flow to scour out a deeper area behind each weir, which in low flows will afford better holding areas for fish. These weirs will improve the oxygenation of the water during summer flow regimes. Where ever new weirs are constructed it is essential to ensure that the rocks used are let well into the river banks at the margins as this will prevent high flows from eroding away the river bank during high flows.

Further upstream there is a long sluggish stretch with little or no features on the riverbed to attract trout or provide cover or safe feeding stations. There are options here that should be considered. With large amounts of natural rocks available along the riverbanks, which were originally dredged out of the riverbed, it is sensible to put some back into the river channel. It is suggested that some larger rocks are randomly placed along the river bed all placed singly or in clusters within the middle third of the stream channel. Once in place these will provide cover for trout and afford feeding stations as well as creating and instilling some life back into a dead stretch of river. Another consideration would be to construct a series of **alternating triangular rock structures** along the banks that are set to be no more than 25% of the channel width and set alternately along both banks thus encouraging the river to meander side to side along this straight stretch. With randomly placed rock in-between these structures this would liven up the flows and afford better holding habitat and feeding stations for adult trout. (see **pic 3 below Random placed rocks. And pic 4 for Triangular structures**



**Pic 3 Random placed rocks**



**Pic 4 Rock Triangle deflectors.**

The triangles are constructed with substantial rocks that will remain in place during high spate flows and set to be 6” out of the water at summer levels and be under water for higher flows these will deflect the flow and create the required meander effect at all levels.

On looking at other stretches of the fishery the problems are similar so these suggested operations are offered for consideration to use at other sites to enhance habitat and to improve holding capacity particularly during summer flows.

Where ever there are areas that are known to hold trout then take observations of these areas at low flow times to ascertain the nature of the cover that is available and that the trout use and try then to recreate conditions by constructing similar habitat and holding areas as near as possible to these productive areas. Do not be frightened to experiment.

#### **COMMENTS**

More of the same should be the policy. What ever construction work is planned it is essential to consult with SEPA to gain their support and advice and consent before you put your plans into operation they will guide through the red tape!. Keep the Forth Foundation and all your riparian owners fully informed at all times.

The work already completed is excellent so continue the good work. Keep it simple and wherever construction is undertaken make sure you over engineer the work as a precaution to losing the work in high flows. It is suggested that all the small tributaries are also looked at and any obstructions that might restrict fish movement up into these potential spawning areas should be removed.

Consideration should also be given to organising for a series of electro fishing surveys to be undertaken before any work is started. It is essential to get an idea of the state of the resident populations of wild trout before you start in order that measurements can be made after the work is completed to ascertain what benefits have been made to the system. This will be costly but essential work, which will give accurate measurements of the success of the clubs work. Contact Willie Yeomans of the Clyde Foundation to do these surveys if the Forth Foundation are unable to help. Once the work is completed then consider reducing or stopping stocking so as to measure more accurately the success of your work. Prepare a three-year plan of action. Do not try to do too much in the first year as long as you do it well. Prepare accurate costing and submit to the WTT(Wild Trout Trust) for some trigger funding. Catch records are essential and all club members should be required to maintain and hand in catch records at the end of the season. Only catch records can give the club any real idea of the state of the fishery. Without catch records the success of all the hard work cannot be measured.



**Pic 5 More of the same**



**Pic 6 Damage**

The damage to the riverbanks by the mis-guided actions of the farmer has to be reported to SEPA and it's for them to take action with the farmer. Unfortunately the damage has been done and little can be done to rectify the problem.