

**LINLITHGOW ANGLING CLUB
RIVER AVON (WESTLOTHIAN)**

Advisory Visit Report undertaken on behalf of **Wild Trout Trust**

By Ron Holloway MIFM

On 16th August 2002



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ADVISORY VISIT TO
LINLITHGOW ANGLING CLUB.
WESTLOTHIAN

This advisory visit was undertaken by Ron Holloway (RH Associates) on behalf of the Wild Trout Trust (WTT) in the company of Alan Ayre (Secretary of Linlithgow Angling Club) and John Hamilton and two other club members and Dr Colin Bull (Fisheries Biologist of the Forth Foundation.)

OBJECTIVES OF THE VISIT

- 1 The objectives of this Advisory Visit were to advise the Club on how they could maintain a balance between a good stock of self sustaining brown trout and a growing stock of migratory sea trout and salmon.
- 2 To see what could be done to improve the aquatic insect populations .
- 3 To advise on how the water quality could be improved
- 4 To advise on the quality of the spawning potential on the spawning burns.
- 5 To give any general advice and recommendations.

BACKGROUND

The river Avon at Linlithgow was historically a productive salmon and sea trout and brown trout fishery until the industrialisation of the area took place along with the coal mining industry becoming widespread throughout the river catchment. Increasingly as the river system was used for industrial purposes the runs of salmon and sea trout diminished as water quality deteriorated by the untreated toxic discharges into the river from the various industrial activities. Since the demise of the coal mining industry and other allied works and other polluting operations being closed down the river has started to naturally regenerate and clean itself up after many years abuse. This process is still ongoing and although fish species are taking the advantage of the cleaner water there is still some way to go however the speed of recovery is very encouraging. The Linlithgow Angling Club and the other two clubs on the Avon system have had a common goal to develop a self sustaining population of resident brown trout. To kickstart this process stocking has been undertaken each

season with catchables and juveniles obtained from Howietown hatchery. The LAC decided to curtail stocking two years ago when it was decided that there were sufficient stocks of trout that were being sustained by natural reproduction. The other two clubs stocked comparatively heavily although have also now ceased to stock.

The Forth Salmon Fishery Board remit is to return the Avon and the neighbouring river Carron to productive migratory salmon and sea trout fisheries. To progress this aim the CARRIS project was launched in 1994 with a report and initial stocking of the river with sea trout fry. The Crown Commissioners were at the time very keen to lease the migratory fishing rights on the Avon but none of the riparian owners along the river were interested. The three clubs then formed a Federation and between them negotiated a five year lease on the fishing rights. Within the agreement of the lease was a clause that required the Federation to “make improvements” and to that end have annually stocked regularly with sea trout fry over the first four years of the five year lease. This stocking has appeared to be quite successful as many returning sea trout are now being taken each season and even the odd salmon are now appearing and are also being taken. There is however an understandable feeling within the LAC and the Federation that as the migratory species increase within the river with the recovery of the system being maintained that future leases could well or will be taken up by more moneyed interests. Hence the apprehension that is now shown by club members over the upcoming lease renewals.

DISCUSSION

During my visit the mainstem of the river Avon was observed and the anecdotal evidence attained during this visit indicates that the mainstem is producing good returns of brown trout and some sea trout, although it was suggested that the average size of fish are slightly smaller this year. This could well be due to a slight over population of one plus fish and two plus fish deciding to stay in the system rather than smolt and migrate to the sea. It would be very difficult for an angler to positively identify an 8 to 10 inch fish as a survivor from the stocking of sea trout fry or as a product of the self sustaining resident population of brown trout. Only by DNA checks could this question be answered. The perceived reduction this year in the activity of the “fishermans insects” could well be due to seasonable adverse river

and climatic conditions during the Spring and early Summer and at this stage should not be of immediate concern. Overall water quality appears to be improving at a steady rate but WQ checks by SEPA should be monitored regularly. From the sites visited the structure of the main river appears to be excellent with little or no major erosion problems and instream habitat appearing to be excellent. By bridge hopping several major tributaries were examined, The Mains Burn, Manual Burn and the Bow House Burn. These three burns would be the main spawning areas within the LAC leased waters and their condition may well be one of the limiting factors within the life cycle of the resident brown trout, the migratory sea trout and Atlantic salmon for within these burns will take place the bulk of the natural spawning of these species. The attached map indicates several other potential spawning burns and all these should have spawning potential. It is within these potential spawning burns where work by the club has to be undertaken as at present there is little or no information on the habitat conditions and WQ of these very important burns. Before any work is planned or even undertaken there appears to be confusion over the identification and prioritisation of the various strata of “agencies” that are, or could be, involved within the whole aquatic system that is the river Avon. Eg., The Crown Estates, The Forth Salmon Board, The Forth Foundation, SEPA, The Federation, The land owner(s) (Callender Estates) and the LAC. To establish a channel of communications between the required consenting agencies is of importance as any work needs to be consented besides each agency may be themselves a valuable source of advice and funding for any restoration work that needs to be done.

To sum up the river Avon is a fast recovering system with increasing populations of self sustaining brown trout and strengthening run of sea trout with a few Atlantic salmon now showing up within the system. Water Quality is improving, mainstream habitat is excellent with work to be done on the spawning burns to enhance natural spawning. Insect populations will improve as WQ improves.

CONCLUSIONS

It is fully appreciated the clubs concern over the future security of tenure of the fishing rights on the Avon particularly as the runs of migratory species improves. It is essential therefore for the club (Federation) to negotiate with the appropriate authorities a long term lease that is legally drawn up and binding to both parties that

secures the fishing rights for the club and Federation for a long period. Once this is achieved the worry of losing the rights to the highest bidder is negated. On the positive side there may well be a time when approaches are made to the club from salmon anglers so with a bit of thought some extra revenue could accrue to the club if this asset is marketed sensibly and which would not impinge upon the club members activities. It is inevitable that the migratory species will thrive in the near future and may well become prolific. It is short sighted to concentrate solely on the resident stocks of brown trout as any work that is done to enhance brown trout productivity will also enhance sea trout and salmon productivity within the entire system. Irrespective of the stocking of sea trout fry and or salmon fry, as the system improves these species would appear naturally anyway, although that may take a little more time. It is suggested therefore that all stocking of trout and or sea trout is suspended for at least three seasons. This would allow the present stocks to settle down and either become sea trout or resident browns, given the chance, the conditions within the river will dictate the success of this action. With the apparent excess of small fish this year this would also allow these stocks to adjust to the improving conditions and maybe reduce in number but increase in overall average size as the food and cover availability dictates. Regular electro-fishing surveys during this period to monitor this should be arranged with the Forth Foundation, contact Dr Colin Bull and work with him as I am sure he will be very willing to help and advise on this aspect. To achieve more accurate data it is essential that the club insists that all members make and keep good, accurate records on catches ie., all fish caught and killed and all caught and released irrespective of size. It cannot be over emphasised the importance of keeping and maintaining regular catch records and it is for the good of every member to do this. A system of collecting scales from killed fish would also afford access to more knowledge regarding the stocks of the river. This too could be discussed with Colin Bull.

Water quality will dictate the productivity of all the fisherman's insects and so close monitoring of water quality is recommended and any possible discharges that may impact upon water quality should be reported to and investigated by SEPA. So do liaise with SEPA and establish a partnership with the local SEPA office and work closely with them.

The spawning burns are where the club should now concentrate their efforts this Autumn particularly as each of the major burns need to be walked up from its confluence

with the main river right up to the very source. This walk up needs to pin point and identify and remove where possible all blockages whether natural or man made that would prevent any adult fish from passing further up the burn to spawn. Furthermore all surface and sub surface (via pipe) discharges along these burns need to be identified as these could well be a further major limiting factor in the survival of any eggs laid into the gravel of these burns. It is my opinion that it is within these burns where the most productive work could be done to increase the natural productivity of this river system.



Good example of a spawning burn

A further job whilst these assessments are being undertaken would be to also identify all the river (burn) banks that are open to intensive cattle and sheep grazing and where trampling has degraded the stability of the bank by the removal of the stabilising effects of vegetation. Where areas have been so degraded then contact to be made with FWAG (Farming, Wildlife Advisory Group) who will survey the site and negotiate with the landowner a subsidised programme to fence off the stream. To make the first contact it is suggested that the address and contact number of the local office of FWAG could be obtained from The Forth Foundation. (see following)



Over grazed banks.



Banks protected by fencing.

To achieve the benefits of the implementation of these suggested actions it is also essential that the other two member clubs of the Federation are also kept informed and encouraged to follow the same or similar course of actions that together would be of some significant benefit to the whole river fishery. There are several agencies out there that can be enlisted to assist the club achieve its goals and there are also sources of funding via these agencies that can be tapped to carry out any labour intensive works. It is most essential to liaise with and build good partnerships with these agencies and for a start I would recommend that you maintain contact with Colin Bull of the Forth Foundation and keep him informed on all progress, also he will also be able and willing to help and advise on any problem you may come up against in the future. Do not ever be wary of asking these agencies for advice.

Make contact with the local SEPA office and make yourselves known to them and tell them of your objectives for the Avon and ask for their help and guidance in achieving these. Invite them out to walk (fish?) some of the river with you and talk to them, tell them your fears regarding WQ and listen to them, they know what water quality is and what can and cannot be done. Discuss with them your concern over the growths of blanket weed during some periods of low flows. It may be that the phosphorus levels are still too high and the dilution of sewage discharges at low flow times is insufficient. Is there a need for the installation of phosphorus strippers on the sewage works? "The solution to pollution is dilution" maxim does not always hold true! Whilst discussing with SEPA it would be very useful to have an in-depth invertebrate assessment undertaken by SEPA that would up date and indicate the present state of the invert populations. These results would give a better measure and understanding of the water quality improvements.

The riparian habitat as seen along the main river was generally excellent although some judicious trimming to improve fishing access would not go amiss in places, and in fact some serious pollarding and coppicing of some river banks could be considered in the future but at present this does not rank high in the order of priorities.

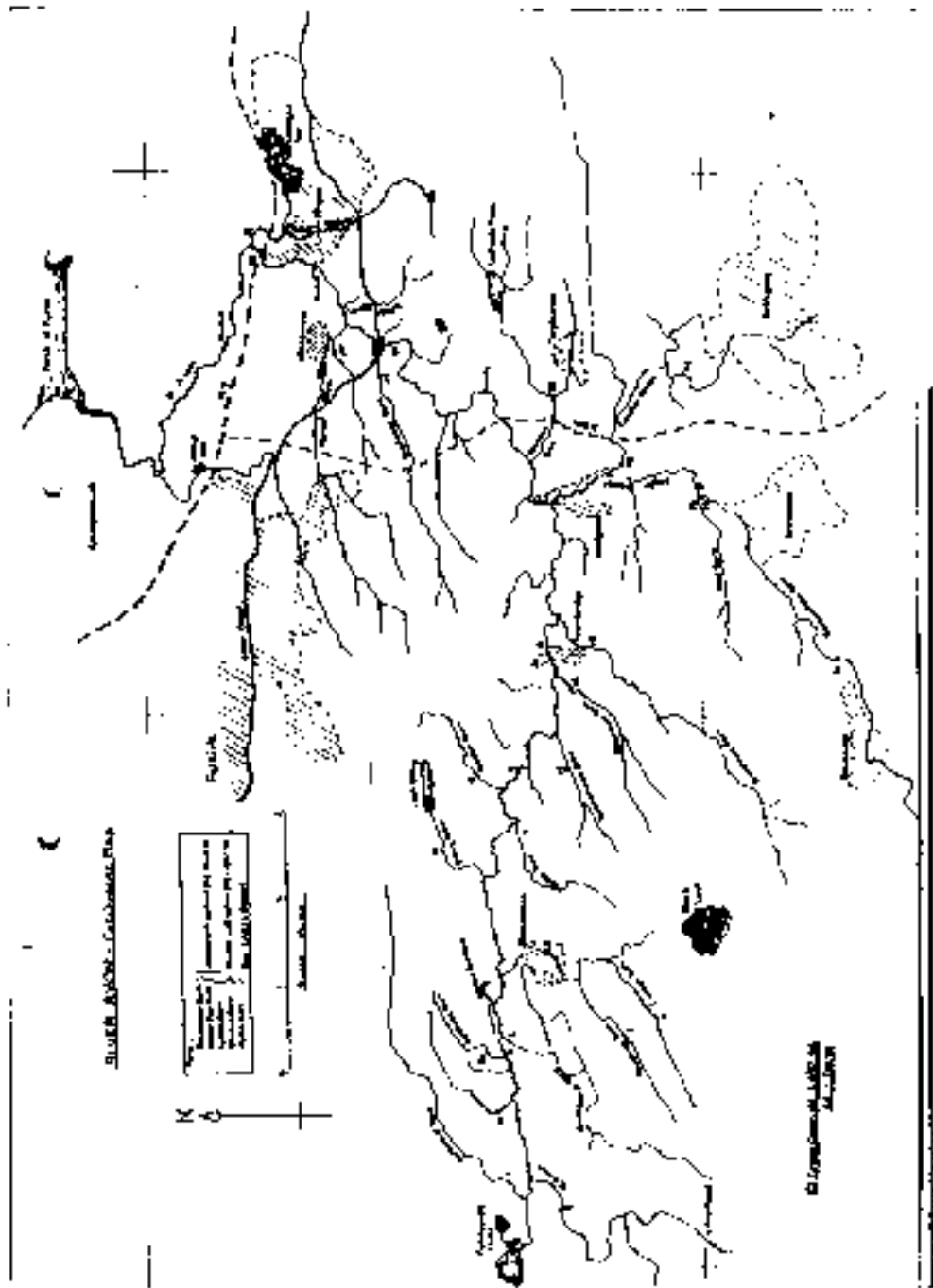
Finally the river is alive and recovering well and as long as all the efforts to assist this recovery are maintained and good monitoring is carried out to follow up this improvement then the future is bright for the Avon as a game fishery. To facilitate this I suggest that the "Federation" takes on the role of coordinator and organiser of

all future operations as it rightly represents a majority of the interested parties within the Avon catchment. Be vigilant and maintain the enthusiasm. I wish you all success in your endeavours and do contact me if there are any questions.

Consideration should be given to adjusting the wired gabions set in the river bed below this bridge as as time goes by this will select against adult fish passing up and down the stream to spawn.



Problem at bridge



MAP