

**ADVISORY VISIT TO BRED A ESTATE, RIVER DON,
ABERDEENSHIRE ON 11 MAY, 2005**

**Sponsored by Orvis and undertaken on behalf of the Wild Trout
Trust**

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Frontpiece: River Don at Breda

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1.0 OBJECTIVES

Hamish McLean, Breda, requested an advisory visit to his beat on the middle River Don, two miles west of the town of Alford, for guidance on how the fishings might be enhanced through better management of the wild brown trout population. The visit was sponsored by Orvis as part of their continuing support for management of wild trout populations in the UK and arranged through Wild Trout Trust member, Dugald Foreman.

2.0 BACKGROUND

2.1 Description of the river

The River Don is the sixth largest river system in Scotland. It rises at an altitude of 680 metres in the Eastern Cairngorm Mountains in North East Scotland and flows in a generally easterly direction for 120 kilometres, entering the North Sea at Aberdeen. Most of the catchment of the Don is rural, set in rolling, productive, Aberdeenshire farmland. The area has become very popular as a dormitory for commuters to the city of Aberdeen, so there has been a progressive expansion of many of its small communities. Throughout most of the 20th Century, the Don was regarded as possibly the best brown trout river in Scotland, particularly for dry fly fishing. However, with the easing of a pollution barrier in the lower reaches from about 1980, it has become a noted salmon river, with an improved run of sea trout. The Breda Estate fishings comprises single-bank (right bank) access to 2.5 miles of the river which, in this area, is modest in size (c. 25 metres wide), mostly fairly shallow and fast-flowing. There are 17 named pools. The beat holds salmon throughout the year and also is noted for the quality of its wild trout (mostly brown and some sea trout) fishing.

2.2 Management of Don fishery

The Don District Salmon Fishery Board is the statutory authority controlling the local salmon and sea trout fishing, but it has no such remit for the brown trout. [*Impending fisheries legislation may address this problem of lack of overall management of trout in Scotland*]. The main stem of the River Don and its main tributary, the Urie, are covered by a Protection Order, making it illegal for anglers to fish for brown trout and other freshwater fish without written permission. Prior to the granting of the Order, riparian and salmon fishery owners had little incentive to improve their trout fishings, having little legal recourse against visiting parties of anglers who removed large numbers of trout, fishing without a permit and by any methods. Uncontrolled fishing pressure gradually worsened as anglers from more populated areas of the country where there was less fishing available to them began to travel further afield. The granting of Protection Orders, although controversial, helped to regulate the itinerant anglers. Arguably, an even greater influence on the extent of angling pressure on increasingly fragile stocks of wild trout in Scottish rivers in general has accompanied the rapid spread and now easy accessibility of put-and-take fisheries for rainbow trout. In many rural areas, fishing for brown trout in rivers appears to be less intensive than it used to be. However, catch records are often inadequate to examine trends in levels of fishing effort and exploitation. There remains no statutory requirement to report brown trout catches in Scotland.

Trout and salmon fishing are widely available on the River Don from private estates and angling clubs/associations, although some is controlled by closed angling

syndicates. Recently, the management of the Breda fishings were taken back from a syndicate during whose period little maintenance was carried out and few catch records were kept. The fishings are currently let by day and weekly lets on a low key basis (pers. comm. H. McLean). The general infrastructure and housing facilities, including a large property, Breda House, are being developed for visitors. The Estate has also participated in a range of conservation and woodland management practices under Scottish Executive Rural Agri-environment Schemes to conserve and enhance wildlife habitats, including field and water margin management. Improvements in brown trout habitats and sustainable fishery plans fit well with these wider conservation and rural development aspirations.

2.0 ADVISORY VISIT

2.1 General observations

The Breda Estate fishings on the Don Beat were inspected with Hamish McLean and Dugald Foreman on 11 May, 2005. The fishery extends from a wooded bank about Kirkton (Landranger Sheet 37 519173) downstream to the Leochel Burn, a significant tributary stream that enters the Don above Bridge of Alford. During the visit, the river level was moderate and slightly peat-tinged after previous heavy showers of rain. Photographs were taken to illustrate some of the main points noted.



Plate 1: Mixed woodland near the top of Breda Beat

Within Breda Estate, the River Don runs through well-consolidated banks, with good marginal vegetation and showing very few signs of erosion. Towards the top of the beat, the river runs alongside a steeper hillside cloaked with mixed conifer and

hardwood trees, but much of the remainder is open farmland with few established trees. However, large areas have recently been planted with hardwoods.



Plate 2: Large areas near the river have been planted with hardwoods



Plate 3: Mainly open countryside



Plate 3: Rocky ledges in one section

At the time of the visit in early May, the marginal vegetation was not at its full summer height. There was little evidence of trampling by sheep or cows or of paths made by or for anglers. Under normal river levels, much of the angling is carried out by wading as the river is often shallow enough to cross. Submerged rocks provide most of the instream cover for fish. One section was a series of cascades over rocky shelves. The rapid flow allows little attached aquatic vegetation; only a few small patches of *Ranunculus*. However, the water was deep enough that no fish were seen. Catches of trout commonly include some weighing two pounds or more, taken mainly on dry fly. As is common in northern spate rivers, rising trout are seen sporadically, although the spectacular hatches of flies that often occur generally bring some fish to the surface.

As well as the marginal grasses and other plants, there were occasional bushes, some showing signs of past pruning, probably more as an aid to salmon angling from the banks at times of higher discharge than with trout shelter in mind. The scarcity of overhanging bushes or trees may be due to previous heavy grazing pressure. It could be worth considering planting small clumps of alder and perhaps willow along the more open areas of bank. However, the greatly reduced level of grazing pressure along the right bank should allow more bushes to become established as a natural process. Where possible, these should be encouraged as they will provide additional overhead cover and root refuges for larger trout, acting as sanctuaries from predators and as shelters from heavy flows.



Plate 4: Occasional bankside bushes provide extra shelter



Plate 5: Only very limited bank erosion

2.2 River engineering

It seems inadvisable to consider any further physical engineering of the river channel, or the installation of gabions, boulders, or other means of manipulating the flows. The channel is sufficiently deep already and there is plenty of turbulence from the existing rocks and boulders to provide good resting and feeding habitat for trout and ample fishing opportunities. In any case, there would be a high risk of bankside erosion and potential disputes with neighbouring fishing beats. At one of the main salmon pools, an old downwards-pointing boulder groyne has caused a downstream cut into the bank and created a back-eddy. However, the erosion was relatively modest and arguably not serious enough to warrant remedial action, although Mr McLean felt that the pool had deteriorated to an extent over the years. It would be feasible to fill in part or all of the cut section with rubble, but the tendency would be for the river to scoop it out again. The solution would be to remove the old groyne, but this could damage the pool further. With the flows prevalent during the visit, the tail of the run below the eddy, like most of the beat, looked eminently fishable for trout or for salmon and it might be wiser to leave the pool as it is.

2.2 Inflows and juvenile recruitment

The trout population within the River Don at Breda will be largely if not entirely self-sustaining. No stocking takes place locally, but some stocking of trout fry of local parental brown and sea trout origin is carried out in the headwaters by the River Don District Salmon Fishery Board. There is also some stocking of larger brown trout of fish farm origin (put-and-take) in the lower reaches of the Don near Aberdeen, where a large angling club has fishings.

Breda trout almost certainly come from feeder burns where wild fish spawn and juveniles migrate to the river as fry or older parr. The extent that these disperse is unknown. No doubt some will move upstream from the Leochel Burn to other parts of the Breda water, particularly if there is light population pressure. Some will move downstream and find territories to feed and grow in the river, while others will migrate to sea as smolts and become sea trout. The factors that cause the relative proportions of trout to adopt each life history pattern remain unclear, although both genetic and environmental influences seem to be involved.

Interestingly, there appears to have been an increase in sea trout and salmon in the River Don. This is believed to be due to water quality improvements, especially in the formerly heavily polluted lower reaches, and may also have been helped by a general decline in commercial netting for the migratory species. Theoretically, more sea trout could mean fewer river brown trout, due to genetic swamping. However, more sea trout spawners could result in an increase in juvenile trout stocks overall due to greater total egg deposition. Mature sea trout are usually larger than brown trout of similar age, although this is less the case in the River Don where brown trout also grow rapidly.

Either way, it is essential to protect the spawning burns. Over many years, like many of the Don tributaries, the Leochel Burn has been heavily modified for agricultural drainage and particularly to try to reduce its tendency to flood over neighbouring land during spates. Streams modified and straightened for these purposes are unnaturally

faster, shallower and retain far less instream and bankside cover than would otherwise be the case. These drastic physical changes will have been accompanied by diffuse chemical pollution from intensive agriculture through fertilisers and sprays and occasional point sources from septic tanks etc and accidental spillages of varying nature. The streams may still support thriving fish populations, but these are likely to be dominated by juveniles. Almost certainly, here lies the greatest challenge for brown trout habitat restoration and protection, rather than in the main River Don. Fortunately, current government grant schemes for rural habitat conservation and enhancement through agricultural set-aside and active promotion of wildlife corridors will do a great deal to help, providing the funding base remains secure.

In its lower reaches before it enters the Don, the channel of the Leochel Burn is very unstable, which is normal when rivers meander through flatter, more erodible, terrain. After a recent unusually severe spate, the channel has dug a new line to the west of the former one. This is still a highly dynamic area with raw, collapsing banks. Further large changes in course appear to be imminent which may result in the loss of ground with some recently planted trees. Presumably, in anticipation of continuing erosion, they can be lifted for replanting elsewhere. It appears to be impractical to carry out sheathing work to protect the new bank section in view of the scale of the damage that has already occurred, the speed of flow and the porous nature of the substrate. It would be better to allow the stream to find its own line.



Plate 7: A heavily-eroding lower section of the Leochel Burn means the probable loss of some newly-planted hardwoods

2.4 Ponds for extra wetland habitat

The Estate is interested in the potential to construct a 1.5 acre shallow pond in an area of boggy ground to the west of the present channel of the Leochel Burn. This would provide additional wetland habitat for aquatic biota, visiting birds etc and be an interesting and aesthetic feature. A pond for wildlife has already been installed successfully higher up the beat.



Plate 8: Existing wildlife pond at Breda

Mr McLean also wondered whether the proposed new pond beside the Leochel Burn could have additional nursery potential for brown and sea trout parr. Water would be piped from the burn. It would be possible to excavate a pond base and use the dug out material to bund the site, although it would be prone to flooding in times of spate. Ideally, the pond should be a maximum depth of about 2.0 metres and be made drainable for better management of aquatic plant build-up and removal of the fish. Excavation below this level would soon hit the water table and so the pond could be made deeper. However, this would require a long outflow pipe to get sufficient fall in level for full drainage. That might be difficult because of the relatively flat terrain to the river. The problem with growing migratory fish in ponds is that many of them are reluctant to leave them until the water is almost all drained away. Then they come out in a rush.

“Pond Construction” (1992) by A. G. Coche and J. F. Muir is an excellent technical manual to consult for pond layout and inflow and outlet devices. This is a Food and Agricultural Organisation (FAO) Training Series production (20/2), available from H.M.S.O. Bookshops, e.g . 71 Lothian Road, Edinburgh, EH3 9AZ (Tel: 013 228 4181). Alternatively, “Making and Managing a Trout Lake”, By R. Barrington (1983), Fishing News Books Ltd, Farnham, Surrey, is a simpler guide.

The pond would require planning consent. Also, the River Don District Salmon Fishery Board should be consulted at an early stage to find out their requirements for screening of the intake and outlets against ingress of salmon and sea trout juveniles and particularly smolts during their spring migration period. The Board might take the view that screening would be unnecessary if one of the main purposes of the pond was to create additional nursery habitat for parr and smolt production and they are happy with the flushing arrangements. However, the additional productive capacity of the pond may be small in relation to the Leochel Burn as a whole. The Fishery Board has embarked on a three-year habitat survey of the Don catchment, including the Leochel Burn, that will assist in targeting obstructions to fish movements, sources of pollution etc (pers.comm. J. Kerr).



Plate 9: Site of proposed pond beside the Leochel Burn

2.5 Disabled Angling Opportunities

The Estate is also keen to provide wheelchair and track access for disabled anglers. These would be situated in two pools where the banks may be capable of supporting platforms with guard rails. This is a very commendable idea. A number of stocked rainbow trout fisheries provide facilities for the disabled angler e.g. Glen of Rothes Fishery by Aberlour. However, there are few places in Scotland where disabled anglers can fish safely in a river in natural countryside with a reasonable chance of catching wild trout, or salmon. The fishing platforms will need to withstand heavy spates and the banks may require extra shoring to protect against erosion. Enquiries about the provision of angling facilities for the disabled may be made with the Scottish Anglers National Association/ Salmon and Trout Association Administrator, Alastair Wallace, National Game Angling Centre, The Pier, Loch Leven, Kinross KY13 8UF (admin@sana.org.uk). Grampian Social Services should also be able to advise on possible funding assistance. It would also be advisable to enquire about consequent matters of liability.





Plates 8; 9: Pools and runs where disabled angling access may be created

3.0 CONCLUSIONS

The advisory visit indicated that the main stem of the River Don is in good heart and wild trout habitat likely to improve over its course through the Breda Estate. There is inherent stability of the banks and the channel stemming from the local topography, slope and geology and sensitive land-use without intensively farming or overgrazing of stock right up to the river banks. The broadleaf tree planting schemes and stock fencing to encourage riparian vegetation will help greatly to conserve and enhance the habitat conditions for wild trout, while retaining plenty of access for salmon fishing.

In the main river, prime environmental conditions for juvenile trout and juvenile salmon will tend to overlap, although trout are more inclined to lie in pools and take up station in slightly lesser flows than salmon. This characteristic preference of trout and salmon for different flows and depths is evident from an early age and permits some habitat partitioning. Thus, there is likely to be a greater overall salmonid production where trout live in combination with salmon parr than would occur if either species was on its own. Larger trout that occur in the beat are unlikely to be found well away from sheltering sites, except in the hours of darkness. Then they will range more widely and even come into very shallow water. The River Don throughout the Breda Beat seems to provide an ideal mix of flows and depths for trout, while probably sustaining good levels of production of salmon parr, primarily in riffle areas. Resting/holding lies are also afforded for returning migratory adults as well as for resident trout.

More specific points that arose from consideration of the beat are indicated as follows:-

- The potential of the Breda fishings will be enhanced by the various wild habitat improvement schemes that are currently underway on the estate. The reduction in grazing pressure along the bank will permit growth of dense overhanging vegetation, useful as overhead cover for trout. More riparian bushes should be encouraged where feasible.
- Ample instream cover is provided by existing structure and varying water depths, so there is no need to consider river engineering. The banks are stable and there is very little evidence of erosion.
- Catch records are needed as a basis for assessing fishery sustainability and assessing best catch limits. A good working basis would be to try to ensure that most of the trout survive long enough to spawn at least once before they may be retained. This may mean a minimum size limit of at least 300mm forked length. With low fishing pressure, a bag limit of up to four trout per day seems reasonable where anglers are keen to take some fish. However, they should be encouraged to operate largely on a careful catch-and-release basis, using knotless landing nets, for conservation of the valuable wild trout resource that presently exists.
- The unstable banks of the new channel of the lower Leochel Burn do not appear to be worth attempting to stabilise until the new course is clearer. Even then, the course is liable to wander and any sheathing work may end up isolated from the water.
- A marshy area to the west of the burn may be suitable for a simple, shallow pond which would enhance the wetland habitat for diverse biota and could add to the nursery production capacity for Don trout, providing the pond is made drainable and is regularly flushed out.
- The provision of stable platforming and access suitable for disabled anglers is a novel and very commendable idea which needs specialist attention.
- The Breda Estate fishings may soon be used as a showcase for wild trout and holistic river habitat conservation.