



RIVER BLADNOCH NEWS

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Introduction

The Conservation of Atlantic Salmon Scotland (CASS) EU LIFE project (part funded by EU LIFE) is now well underway on the Bladnoch with a number of works having been completed and many other works planned across the river catchment. All work is aimed at protecting and enhancing the salmon population (in particular the Spring salmon sub-population) and associated habitats.

On the 4th of July 2005, Richard Miller joined Galloway Fisheries Trust (GFT) to lead the aforementioned LIFE project on the Bladnoch. Richard arrived qualified in Aquaculture and Fisheries Management and worked previously on a Lobster conservation programme in the Orkney Islands.

This year, GFT is pleased to report that the fishing season has started well on the Bladnoch with encouraging numbers of spring fish being caught since the fishing season opened on the 11th of February. Richard Miller, of GFT, captured the first spring fish, weighing around 8 lbs on the 17 of February. Good numbers of other salmon, up to 12lbs have been reported and carefully released in accordance with the catch and release policy which operates up until the 1st of June.



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As part of our ongoing re-research on the Bladnoch salmon population we would like to collect scale samples from as many rod caught fish as possible throughout the season. A side of smoked salmon is available for anglers who return a spring fish up until 1st of June (kindly donated by Uniq Prepared Foods (Pinneys of Scotland)). To collect the reward please give a scale sample from the re-released fish to the GFT. We are also keen for scale samples collected from summer and autumn fish. The information that these scales provide gives important details on the age structure of the salmon population and presence of any farm fish. Remember scale samples can be collected from both live and dead fish.

Egg Box Experiments

Location	% Survival
Pulganny Burn	76.6%
Loch Maberry (out-flow)	73.3%
Upper Polbae	98.3%
Lower Polbae	0%
Bladnoch (u/s of Polbae Confluence)	72.3%
Bladnoch (d/s of Polbae Confluence)	5.3%
Bladnoch (Waterside)	51%
Black Burn	30%
Pultayan Burn	0.6%
Malzie Burn (control site)	85.6%

Commercial afforestation in the upper reaches of the Bladnoch catchment has contributed to the degradation of water quality and riparian habitat by exacerbating the processes of acidification. Acidification has led to the loss of salmon from known nursery areas due to the water quality having a prolonged low pH. Salmon eggs fail to hatch if exposed to pH 4.0 - 5.5 at the stage in which the embryo has developed eye pigment.

As part of the CASS EU LIFE project the impact of acidification, landuse changes and enhancement work completed by GFT and Forestry Commission Scotland (FCS) has been monitored by GFT using 'egg box' experiments. Egg box experiments were completed at nine sites in the Bladnoch catchment which are believed to be at risk from levels of acidification fatal to eggs and alevins and at one control site where acidification does not occur. At each site 300 eyed salmon eggs were split equally and placed in three specially designed egg boxes and buried in the river bed from 10th of February to 13th of April. The 2006 results are shown in the adjacent table. The results clearly show that the acidified Polbae Burn is a highly problematic area. The results will be used to direct works to improve and enhance water quality, particularly the restructuring of the Sitka spruce plantations.



Smolt Research

During 2005 and 2006 the Bladnoch smolt runs were examined by GFT using a mark-recapture experiment to estimate the total Bladnoch smolt production for these years. Age structures were also identified by taking scale samples. Please contact GFT for further information and results.

A rotary screw trap was operated successfully in the upper river this year to study the age structure, size and run timing of smolts which would be expected to return as Spring salmon. A good number of smolts were captured including 65 in one day. The number of smolts captured and their condition was encouraging as much of the upper river is experiencing acidification problems.



A Bladnoch springer



To contact the GFT, please:

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- Email: mail@gallowayfisheriestrust.org
- Website: www.gallowayfisheriestrust.org
- Visit the Trust Office at Fisheries House Station Industrial Estate Newton Stewart DG8 6ND

For project update please visit : www.snh.org.uk/salmonlifeproject



Polbae Burn

In the Autumn of 2005, Galloway Forest District completed the first of three stages of work in the CASS EU LIFE project. The first stage was the clearance of 18 ha of coniferous plantation on the southern bank of the Polbae Burn. This was accomplished using conventional harvesting technology and removed trees (particularly windthrown trees) which were overshadowing the burn. The aim was to assist the salmon population by improving light conditions and water chemistry for mayfly and young salmon. Groups of short statured native trees will be planted in the felled site, and the remainder of the area left to return to natural vegetation, which will comprise grasses, heather and rushes.

The second stage of the work was technically far more complicated and involved crossing the Polbae with substantial log bridges in two places. This was to permit access to areas around Blood Moss and flanking the Polbae, by an excavator based hammer flail. This hammer flail was used to fell and chip 12 hectares of conifers to waste. The expected drifts of chips did not arise, and instead the site looks virtually bare: it is hard to see where all the trees went! As well as removing trees growing too close to the burn, the aim was to remove trees which were affecting the "ground water bubble" or hydrological unit of Blood Moss SSSI. This Raised bog has an important hydrological role in regulating flows on the Polbae, and wider stretches of the Bladnoch system. Forest drains in the cleared area have been blocked and the area will return to natural bog vegetation over time. Happily the nearby coniferous forest was not coming at the time and has few birch trees present. In consequence the prognosis for the recovery of raised bog vegetation, unhampered by excessive tree regeneration, is excellent. This clearance and bog restoration will assist salmon by improving light conditions and water chemistry, and smoothing out runoff yields in the upper stretch of the burn.

The third and final stage of the Galloway Forest District part of the CASS EU LIFE project is the removal of 9 ha of coniferous trees which overshadow the area at the confluence of the Dargoal and Polbae Burns.



BRIEF UPDATES:

- The River Bladnoch Atlantic Salmon Catchment Management Plan (ASCMP) commissioned by Scottish Natural Heritage (SNH) is nearing completion following GFT's consultation with stakeholders last February. The document will go to print as soon as possible upon finalisation. It will provide information and guidance for management of the Bladnoch catchment to benefit the river's salmon population. The implementation process can commence when the published document has been circulated to all relevant organisations and stakeholders.
- Two fish eating bird surveys were completed on the main river by the Bladnoch District Salmon Fishery Board (BDSFB), GFT and other interested parties on the 10th April and 15th May. The surveys were timed to count numbers of birds feeding on the river before and during the smolt run using Scottish Executive recommended methodology. The aim of the work was to assess the potential scale of impact that these birds, especially cormorants, might be having on the smolts. Anecdotal evidence had been suggested that in some years numerous cormorants are seen (including one report of 19 in one pool!) but that other years few may be present. The 2006 survey suggested low numbers of cormorants and herons feeding on the river. Interestingly however a higher than expected number of sawbill ducks were recorded in the upper River Tarf.
- The new www.fishgalloway.co.uk website will be launching very soon. The site features beats from all of the Galloway rivers, with the Bladnoch having four beats currently advertised.
- The salmon fry reared at the GFT (Gibb) hatchery, for restocking the upper Bladnoch, were about a month later in developing than normal due to the low winter/early spring water temperatures.
- The lower water temperatures also resulted in the region's salmon smolt runs commencing about 2 weeks later than usual.
- The Bladnoch is renowned for its big wild brown trout. A brown trout of 5lb (see photo below) was caught last autumn in the Barhoise Burn fish trap and this May an angler caught an 8lb brown trout at Redbrae!
- The GFT know of 2 locations of riparian Japanese knotweed on the Bladnoch system. This invasive alien plant species can smother banksides causing problems with biodiversity, erosion and human access. Please report to the GFT if you find any Knotweed on the riparian areas of any Bladnoch watercourses. Guidance is also available on eradication methods for this weed.
- Mink are known to predate heavily on many species of riverside wildlife, including salmonids (especially parr and spawning fish). A joint mink research and trapping programme is proposed between the GFT, River Dee Trust and Western Isles Fisheries Trust (part funded by Esmee Fairbairn Foundation). Please could anglers report any sightings of mink to the GFT.
- Annual Kirkcowan Angling Competition (proceeds to GFT) will be held on 19th August.



Recent Habitat Works

During late 2005 as part of the CASS EU LIFE Project, the Clugston Burn (pictured above) was cleared of various debris dams which were blocking adult salmon from entering the burn to spawn. Also earlier this year over 1000m of fencing was erected on the Black Burn, Beoch Burn, Glassoch Burn and Bladnoch main stem to minimise bankside grazing and to protect salmon redds.

Deciduous tree planting has been completed over 1.2 km on the Polbae and Glassoch Burns to protect the river banks and supply juvenile salmon with leaf litter and invertebrates for food.

Future Works

Later this year habitat works will be completed on the Killeal Burn which will include the removal of debris dams and the addition of stock fencing. The Glassoch Burn will also have instream debris removed to facilitate salmon in entering the burn to spawn.

99 Year Netting Lease

The River Bladnoch DSFB have successfully secured a 99 year lease of the inland netting station at Kirwaugh as part of the CASS EU LIFE Project. This will reduce adult salmon exploitation. An acknowledgement goes to the Fishmongers' Company who kindly donated funding towards the lease of these nets.



5lb brown trout