

Cromarty Firth Fishery Trust Report

Wild Fishery Reform

In February 2017 the Scottish Government announced a scaling down of the Wild Fishery Reform process. The proposed merger of Fishery Boards and Trusts, to form much larger Fishery Management Organisations will not now be progressed. The District Salmon Fishery Boards will remain in place and will not have a statutory duty to manage all fish species. There will not be additional funding for fishery management raised by an angling levy. Other aspects of Wild Fishery Reform, including the requirement for Boards to produce approved Fishery Management Plans will be progressed.

There has been a major restructuring and simplification of Scottish Fishery Management organisations. The Association of Salmon Fishery Boards and the Rivers and Fishery Trusts Scotland have merged to form a new body called Fishery Management Scotland (FMS). The Scottish Fishery Coordination Centre is to form a sub-committee of FMS.

For the Cromarty Firth Fishery Trust this means that we retain our current close working relationship with the Cromarty Firth District Salmon Fishery Board and become a member of Fishery Management Scotland instead of RAFTS.

New hatchery and facilities

On the 14th of December Lord Nickson officially opened the new hatchery at Contin which has been named in his honour in recognition of the enormous contribution he has made, and continues to make to salmon conservation in the Cromarty Firth region. The opening was attended by Board members, Trust members, local anglers, Board and SSE staff. As well as providing hatchery facilities the new building contains office and meeting room facilities.

Trust Projects 2016

Education Programme

The Trust supported the Cromarty Board's education works last year. This included a series of public events and open days as well as a busy schools programme. The schools work involved a continuation of classroom and riverbank visits to deliver the 'Mayfly in the Classroom project'.

With a £3770 grant from the SSE Fairburn Community Fund, the Moray Firth Trout Initiative (MFTI) and Cromarty Fisheries delivered a hugely successful junior angling project this spring. The aim of the project was to increase junior participation in angling in the Marybank and Strathconon area.



Marybank Primary practising their fly casting lesson with Allan Liddle

Children from three local primary schools were given the opportunity to “experience angling” at Tarvie Lochs trout fishery where they got to try angling in a safe and controlled environment with a qualified instructor. The excellent and professional instruction was provided by SGAIC Instructors, David Mateer and Allan Liddle. The children received instruction in fly fishing, spinning and bait fishing before being let loose to test their skills on the wild and stocked trout. The children also learnt more about the ecology of their local river with an invertebrate kick sampling session and an electrofishing demonstration in the local burn. Throughout all sessions they were reminded how important it is to be a responsible and sustainable angler. As part of the project an extensive resource of angling and safety equipment was purchased to ensure the children were properly equipped for their first days fishing. This equipment is now a resource for future junior angling activities and will be available to other Fisheries Trusts and Angling Clubs around the Moray Firth.



Sorting the invertebrates collected from the kick sample.

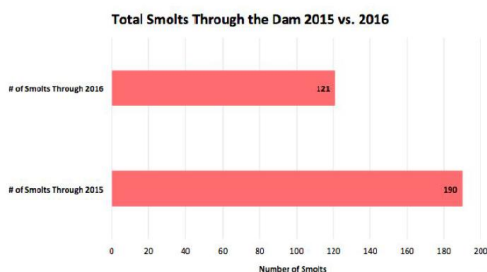
Over the 3 days, 48 pupils from the Marybank Strathconon and Tarradale Primary Schools had a fantastic time at Tarvie Lochs. All 3 schools managed to catch and land some stocked trout and even some wild brown trout were caught on the fly. The children were clearly inspired by the experience and at the end of each session there was a lot of enthusiasm from them all to continue angling. To maintain the momentum generated by the angling days a list of children interested in taking the sport forward was collected and information about local angling clubs and places to fish distributed to them. Hopefully we will see an increased uptake of junior memberships at some of the local clubs.

It is intended to develop this project in 2107 and a further grant application has been submitted.

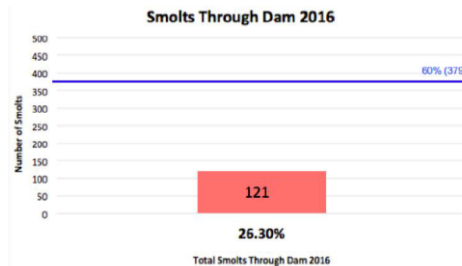
Meig smolt research

Further smolt trapping and tagging work took place on the Meig in 2016 to assess the effectiveness of fish passage at Meig Dam. PIT tags were inserted into smolts at a trap at the head of Loch Meig and the individual fish were recorded by a decoder as they passed through Meig Dam. After the disappointing smolt escapement in 2015 an experimental pump was installed at Meig Dam to create a flow of water to guide smolts towards the entrance to the fish lift.

Graph 1



Graph 2

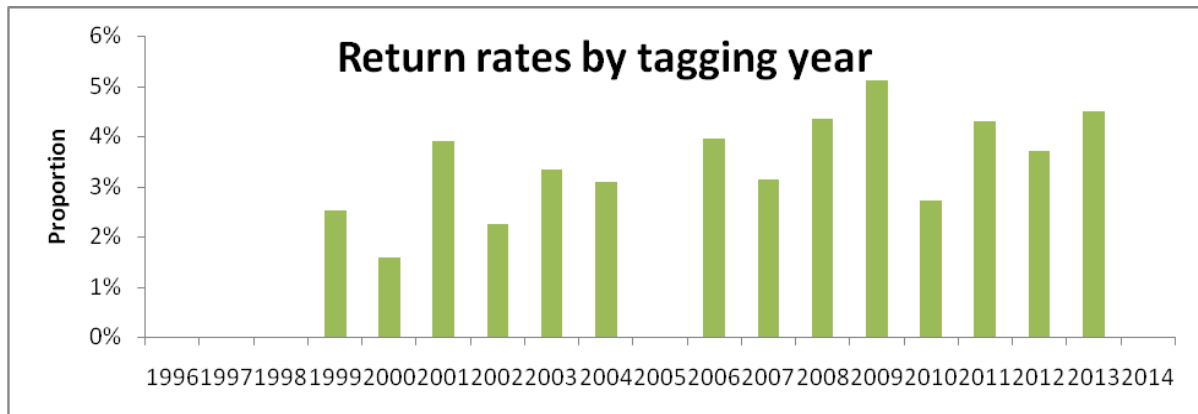


Unfortunately the results in 2016 were worse than in 2015 with only 26% of tagged smolts finding their way out of Meig reservoir compared with 30% in 2015. Of these 43% found the entrance to the fish lift whilst the pump was running compared with 57% when it was switched off.

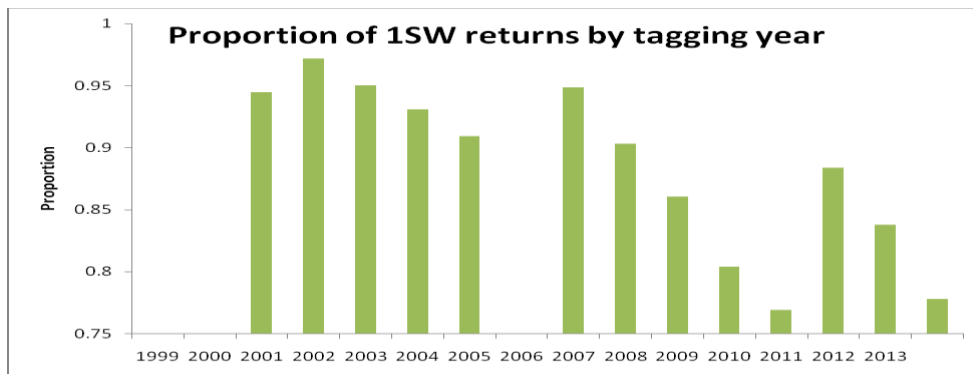
For 2017 a combination of acoustic tracking and PIT tagging is proposed in Meig reservoir to further investigate smolt passage. Options to intercept smolts upstream of Meig reservoir and transport them around the hydro scheme are to be investigated.

Marine Scotland Science collaboration

We are working with Marine Scotland Science to integrate more than 15 years of PIT tag data from the River Bran with other data sets so that the Conon can be included in a network of index rivers for Scotland.



Initial analysis of return rates through Tor Achilty (not including returns from rod catch) show a steady return rate in recent years with no downward trend.



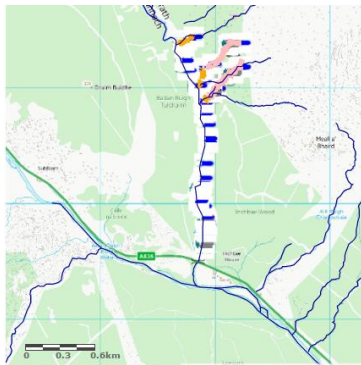
A clear trend over the last 10 years has been the reduction in the proportion of grilse in the returns and an increase in the proportion of multi-sea winter fish. This mirrors the trends in both rod catch and trap catch on the Blackwater.

A site visit with Marine Scotland Science to assess the suitability of the Alness Weir as a site for a fish counter has been arranged for 2107.

Bankside restoration progress

Native trees are an important part of the river habitat which supports our fish stocks. They provide a significant nutrient input which supports the invertebrates salmon and trout feed on. Their roots stabilise banks and provide shelter for fish. The shading effect of native trees helps to reduce peaks of summer temperature, which in upland streams can threaten fish survival.

Work was completed in 2016 on the development of a new App to record forestry pressures on rivers. The App has been developed with the Forestry Commission and Scottish Fishery Coordination Centre and tested on the River Blackwater and its tributaries. The App allows accurate collection of data in the field onto a tablet or smart phone which is then stored and uploaded into GIS maps.



output from App



Strath Rannoch tree growth

We have had further meetings with the Forestry Commission, Woodland Trust and local estates to find opportunities to restore riverside woodland habitats across the region

Acoustic smolt tracking project

A collaborative project with SSE, Glasgow University and Aberdeen University took place in 2016 to look at the behaviour and survival of smolts as they migrate to sea through the Cromarty Firth. Salmon smolts from the Bran trap were tagged with acoustic tags and a network of listening bouys were deployed in the Cromarty Firth and Inner Moray Firth. The project has been written up and a report will soon be published which will throw new light on salmon smolt migration in near shore waters. This work gives a very strong indication of the route taken by Conon smolts, as well as the speeds at which they travel. The proposed combined PIT tagging works from the Conon in 2017 will tag around 4,000 smolts. Marine Scotland Science are planning to combine the information from last year's acoustic tracking with the large number of tagged smolts leaving the system this year, to

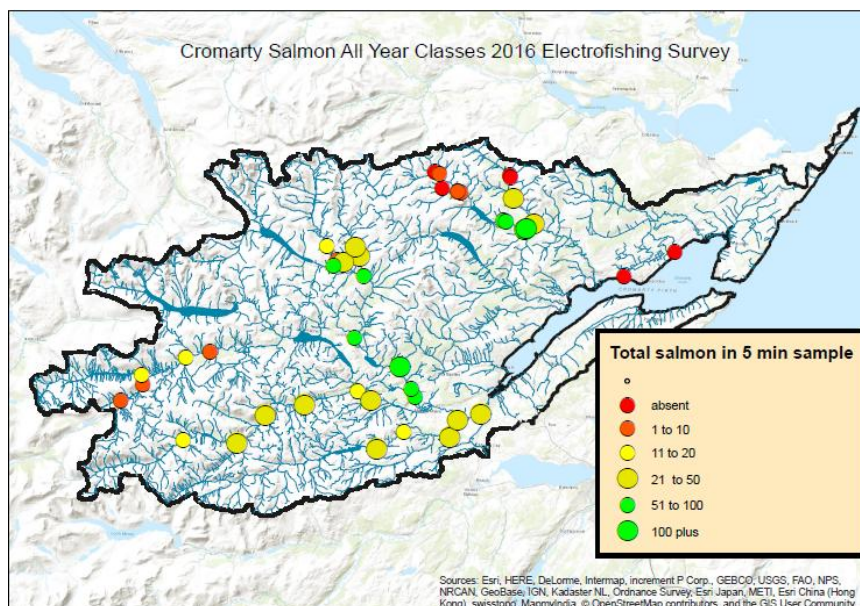
try to map the migration of smolts further out to sea in the spring of 2017. They are planning to use a trawl arrangement, which instead of a capture net, guides fish through an open PIT detector frame.

Nutrient Research

The project with Glasgow University to look at nutrient restoration in streams is being written up. Initial results are very encouraging with an increase in biomass of salmon fry and a trebling of abundance and biomass of invertebrates. It is intended to continue the project in 2017 to investigate the effect of nutrient restoration on parr and smolt production..

Electro-fishing surveys

A large number of sites were sampled this summer across the Cromarty Firth region which gives a picture of the distribution and relative strength of salmon stocks as well as recording information on trout, eels and lampreys. The data has been entered into the SFCC database and maps of fish distribution produced. Electro-fishing shows stable juvenile stocks throughout the Conon system with fry present in unstocked areas of the Bran, Meig and Orrin. On the Alness the main stem of the Alness had very high numbers of fry and parr but reduced numbers in the headwaters, probably associated with dry autumn conditions limiting upstream migration in 2014 and 2015.



Invasive Species Projects

Mink Project

The Trust continues to support the work of the Scottish Mink Initiative. This involves maintaining a network of volunteers who operate mink tracking pads and traps. There have been a number of sightings in the region. After each sighting traps were quickly deployed and four mink were captured.

Invasive Plant Species

With funding through RAFTS and SEPA the Trust continued to manage the control of Non- Native Invasive plant species along the banks of the regions rivers this year.

Giant hogweed was sprayed in two catchments and its density has been considerably reduced.

Regrowth of Rhododendron along the banks of the Orrin was sprayed and native trees are now growing well to replace it.

A mixture of stem injection and spraying was used to treat Japanese knotweed in six catchments.

Proposed programme of works 2017 / 18

Bran PIT tagging of salmon smolts (1000 smolts joint project with MSS /SSE)

Meig PIT tagging of salmon smolts (smolt escapement at Meig dam SSE funded)

Blackwater PIT tagging of salmon smolts (MSS SARF funded project)

Nutrient restoration research (Glasgow University / MSS)

Acoustic tracking of salmon smolts through hydro and non hydro lochs (Glasgow University / SSE)

Schools angling project (funding application in progress support from Trout quest)

Schools education project (10 schools already agreed)

Allt Graad electro-fishing survey (RWE Npower)

RLI development of genetic tool for stock assessment (dependent on funding)

sawbilled duck counts

Tree planting (Forestry Commission Scotland to supply trees and materials)

Marine Scotland Science PIT tag trawls to attempt to track smolts further out to sea.

Production of Conservation Plan and Fishery Management Plans

Contribution to Wild Fishery Reform Stakeholder Reference and National Strategy Groups

Contribution to Wild Fishery Reform Technical Working Groups

Contribution to Board of Fishery Management Scotland