The River Dee Bulletin 2015

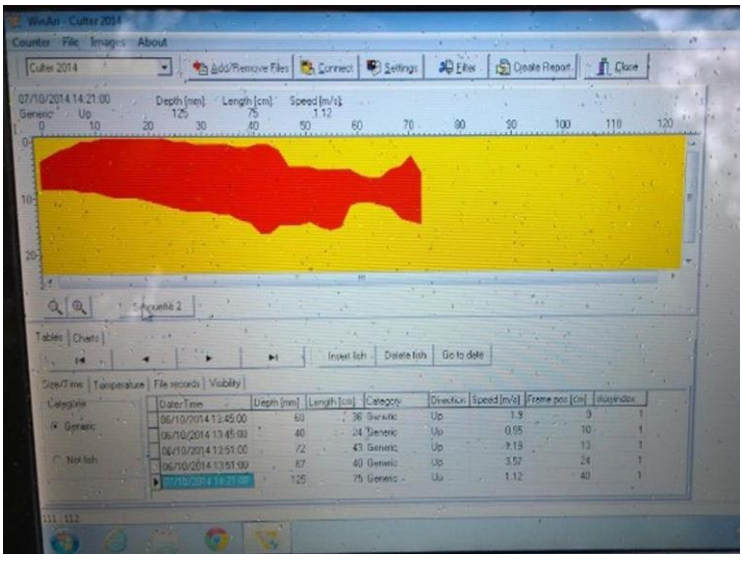
Improving Access for Fish

We have an ongoing programme of removing and easing man-made barriers to fish in our rivers and burns. Barriers, such as weirs, culverts or poorly designed bridges can prevent fish migration or at least delay migration during low flows. So our aim is simple: Allow fish to gain free access to their natural spawning and rearing grounds.

Denil Fish Pass

An example of this work in practice is the five metre high Culter Dam, the largest man-made obstruction on the Dee. The 3rd of October last year marked a historic day when 90 km of habitat was opened up for salmon and sea trout for the first time in over 250 years through the installation of a Denil fish pass. With access to the Culter Burn, salmon and sea trout are now beginning the process of re-establishing populations within the second largest tributary in the catchment.

How do we know it is working? The fish pass is fitted with a Vaki fish counter to record how many salmon and trout exit at the top of the fish pass. Although the counter cannot distinguish between a salmon and a sea trout, it takes an infra-red image of the fish and reports its size. We assume that fish greater than 50 cm in length are salmon and fish 30-50 cm length are sea trout. Our scale data suggests this classification should be about 94% accurate.



Four days following the completion of the pass the first salmon in over 250 years ascended the Culter dam, a salmon of 68 cm (about 8 lb). The counter recorded fish movements through the spawning season and showed 43 salmon and 69 sea trout ascended the fish pass, an excellent result for its first year of operation.

This is one of a series of bulletins that highlights some of the Trust and Board's work on the River. No. 25

There are three other significant barriers further upstream in the Culter catchment and we also eased two of these last year. A pool-and-weir fish pass was built to enable fish to bypass around the Loch of Skene weir and a 40 metre bypass channel was also created for fish to move around the vertical weir at the outflow of the Waterton Loch.

Loch of Skene – pool and weir fish pass

Waterton Loch – bypass channel

We still have the Garlogie dam to ease and plans are underway for this, which will then open up the whole 120 km of the catchment. We expect 1,500 salmon per year to return to the River upon the easing of all obstacles and the completion of habitat restoration within the Culter catchment.

The Board and Trust previously installed a Denil fish pass and counter on the four metre high Coy dam on Crathes Castle Estate in 2008. Numbers of salmon and sea trout ascending the Coy burn have been variable over the years but in 2014 were the highest recorded to date with a total of 43 salmon and 69 sea trout (coincidentally the same number of fish passing through the Culter fish pass). The variability in the numbers of fish ascending has been impacted by the dewatering of the fish pass for pond management on several occasions. Electrofishing has shown that salmon have extended their range to 13.3 km above the dam, although in years with lower numbers of adults going through the pass their range has contracted, showing that the Coy catchment is not close to capacity yet.

Building fish passes is an initial financial outlay but it is a good, long term investment. Taken over their lifespan they are a cost effective means of increasing fish production when it's not possible to remove the obstruction. Since 2007 we have eased or removed 27 obstructions, many of which have been physically delivered by our staff. These works are supported by SEPA's Water Environment Fund, EU LIFE funding and private donations, opening up approximately 300 km of habitat for migratory fish over the past eight years. We have a further 13 obstacles yet to ease at an estimated total cost of £200,000 and will continue this work over the forthcoming years.