

Appendix L8

North West Regional Fisheries Board Smolt Survey 2009

Smolt Survey Glenamoy River March to May 2009

This survey was carried out by the North Western Regional Fisheries Board to determine the run timing of salmon smolts descending the Glenamoy River.

The purpose of the survey was to enable the Board to make recommendations in relation to works planned to be carried out in Sruwaddacon Bay by Shell E & P Ireland Ltd.

On the 26th March 2008 staff from the Marine Institute and NWRFB installed a smolt trap on the Glenamoy river two hundred metres upstream of Glenamoy Bridge

The trap used was a floating rotary screw trap that captures fish when water enters the upstream end of the trapping cone. Water striking the angled surface of the internal screw rotates the perforated cone and screw assembly. As the assembly rotates, fish are trapped within the chambers formed by the screw and are moved rearward into the "live box".

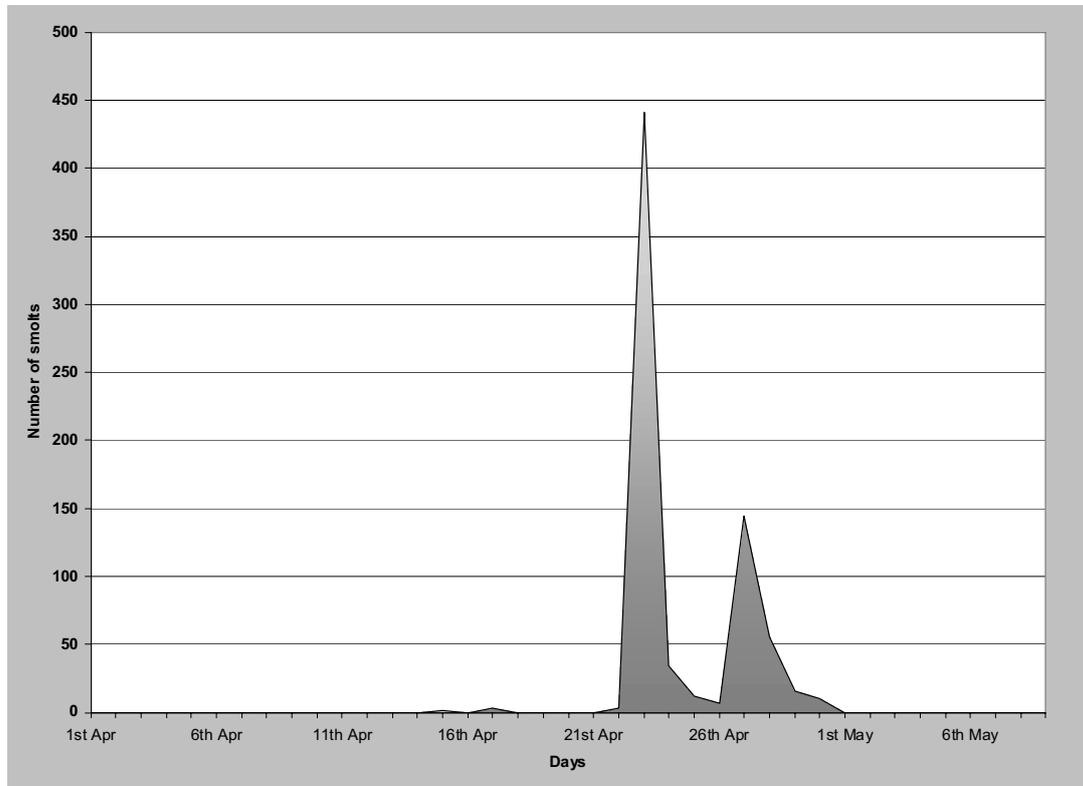


Floating rotary screw trap Glenamoy River 2009

The trapped smolts are held in the live box on the downstream side of the cone, the trap is inspected daily and the trapped fish identified, counted and released unharmed downstream. The first fish were captured on the 30th of March when staff removed one salmon smolt and two brown trout from the live box. Over the following three weeks a mixture of smolts, salmon parr and trout were captured. The number of smolts increased dramatically on the 23rd of April when four hundred and forty one smolts were captured.

The numbers captured after this declined over the following week to the end of April. On the first of May we had a flood in the Glenamoy River which brought large amounts of debris downstream; we had to raise the cone on the counter during the flood because of the amount of debris that was entering the live box.

Water levels continued to rise over the following days and on the 8th of May the trap pulled its moorings and was carried downriver. The trap was undamaged and was recovered by NWRFB staff.



Run timing of salmon smolts Glenamoy River April - May 2009

This graph shows the “run timing” of salmon smolts during the month of April and the first nine days of May. It shows that the peak smolt run occurred on the twenty third and twenty fourth of April with a smaller peak on the twenty seventh. This ties in closely with the experience at the Marine Institute traps on the Burrishoole fishery.

A total of seven hundred and twenty seven smolts were captured over the thirty-nine days. It is possible to estimate the number of smolts descending the Glenamoy River by calculating the numbers that went through the trap and using the diameter of the trap as a percentage of the river width. This calculation is being done by the Marine Institute.

Conclusion

It appears from this survey that the peak smolt run in the Glenamoy River in 2009 occurred between the 15th and the 30th of April. This is the critical time for smolts to run and the experience at the Marine Institute shows that when smolts get the urge to migrate they swim out to sea directly rather than had previously been thought that they stay a number of days in the estuary. In the event that works need to be carried out by SEPIL in the Glenamoy estuary during the period April to May The North Western Regional Fisheries Board will monitor the smolt run and agree mitigation measures with SEPIL including cessation of works if necessary during the peak run time.