

What a kick! SRT helps improve awareness

On Saturday the 8th of October last the Carnew Scouts, assisted by Thomas Mernagh (SRT director) and Tom Hoyne (Bsc applied marine and fresh water biology), engaged in a full days water sampling at six sites on the upper Slaney using the **Kick sample** method being used by the EPA and IFI.



Tom Hoyne (nearest right), the scouts and their leaders.

The day began in Baltinglass where samples were taken just below the weir, conditions were perfect and initial findings indicate good water quality at this site with a lot of key micro-invertebrates being identified with the use of **keys**. These are charts with key features of types of micro invertebrates illustrated in them.



Thomas Mernagh and scouts checking for young micro invertebrates



A young Lamprey eel.

The team even found a young lamprey eel!

The **kick sample** method is a very effective method that is easily carried out and can give an on the spot indicator of water quality. The kick sample method involves placing a net (1mm mesh) down stream from you are standing and kicking up the bottom of the river, thus disturbing the micro-invertebrates and the water flow carries them downstream into the net. They are kept for visual analysis and a later laboratory analysis.



Scouts taking samples.

One of the main constraints in carrying out kick sampling is that it must be carried out for 3 minute period only at each site in order to allow the sample to be a real indicator. Later on that day we moved down stream to Tullow where some very poor water quality was identified. During the sampling a lot of leaches were found and also blood worms

which are indicators of sewage and nitrates. Tom Hoyne pointed out that the colour of the blood worms also gives an indicator of the severity of the pollution with the blood worm being a brighter red if there is a high level of pollution , leeches adhere themselves to stones and debris and these are lifted out the water and scraped into the sample buckets.



A Tullow large leech on a rock.

While we were in Tullow a local informed us that there was raw sewage flowing directly from a pipe in the centre of the town. This seems to be common practice where county councils have low capacity in their treatment plants. It occurs when capacity is exceeded and all the surplus is discharged directly into the river. Inspection of the samples collected at and below Tullow clearly shows the effects of the discharge.



The site where sewage is discharged directly in Tullow.

When we had all the samples collected we headed back to Carnew to the Scout Hall where the samples were analysed by the scouts . Tom Hoyne led the activity and the use of a



Scouts having a closer look with Tom's help.

microscope was employed to look closer at the individual micro-invertebrates and identify the specific species at each location. The scouts really enjoyed this and they were quick to familiarise themselves with using the keys and charts.

The final part of their analysis involved the totalling of a score sheet which gives varying values for specific species of micro-invertebrates. The scouts were then able to come to a conclusion as to the effect that our towns and communities are having on water quality, and how this is impacting on fish

stocks both directly and via the food and larvae that our fish depend on for their juvenile development.



Scouts totaling their scores.



The group at the last test site, 5 miles below Tullow.

A special thanks to the scout leaders and the Carnew Scouts, a full and detailed report on the exercise is being compiled by Tom Hoyne and will be available in December.