



Riverfly for Schools

Riverfly for Schools is a hands-on environmental project where children engage with their local environment by monitoring water quality and learning about river habitats

Background

The Wear Rivers Trust is a member of the Riverfly Partnership, a network of organisations working to protect water quality by monitoring the presence of certain aquatic insect species known as riverflies. Riverfly species, such as mayfly and stonefly, are highly sensitive to changes in water quality as they need clean water to survive. Therefore, by monitoring their presence we can build up a picture of how clean different streams are and, if uncharacteristic drops in riverfly numbers are recorded, we are warned of the possible beginnings of pollution problems which might otherwise go unnoticed until more obvious effects on the river habitat are observed.

Having established a Riverfly monitoring framework in our catchment by building up a team of enthusiastic adult volunteers, and having also developed an environmental education programme with schools, the idea of combining these two aspects of our work emerged and the Riverfly for Schools project was born. This has been a completely new venture as it has seen Riverfly monitoring being carried out as a school activity for the first time anywhere in the country.

The project was piloted in 2012 with ten schools and is now open for schools and groups/clubs across the Wear catchment to join.

Who is the project for?

Riverfly for Schools is for teachers or others who work with groups of children and young people from Key Stage 2 upwards and who want to lead their classes/groups in monitoring local water quality, whether to support science studies, give a hands-on experience of nature, 'give something back' to the environment or all of the above! The teacher or leader needs to be willing to come to a training day and then, with the support of the Wear Rivers Trust staff, to lead the collection of monthly samples and ensure the data is sent back.



What does the project involve?

The core monitoring process is to carry out a three-minute kick-sample of the river bed each month (conditions permitting), turn out the net into a tray for identification of riverfly species and then to record the numbers and send this data back to the Wear Rivers Trust. The core process should take up to an hour, depending on travel time to the monitoring site. We would also encourage you to build on this by using our resources to support and enhance learning and even let it inspire you to get further involved in practically caring for the river.



The first step of the project is to send a teacher along to Riverfly training to become officially certified as a Riverfly Partnership volunteer. This is important because scientific rigour of results requires that all volunteers, where ever they are in the country, follow the same method of collection and recording. The method is, however, simple enough for young people to follow. The training day gives all the information needed about riverflies and their identification in an informal and interactive style, including a practical demonstration and lots of time to practice at the river. Health and safety of working in and beside rivers will also be covered and risk assessments provided. At the end of the training day you will receive a free sampling kit to use with your school or group.

Teachers are then able to go back to school armed with the resources to involve children in the monitoring. It is up to you to timetable your sample each month and decide how many children you want to take out, although if the number exceeds six we recommend you purchase an additional tray to make the identification stage less crowded! Some schools choose a class to go out in groups throughout the year and some have eco



or gardening clubs who do the sampling in an after-school slot. You may either decide to do the kick-sample yourself and let the children do the identification and counting, or divide up the kick-sample between the children as well and let them time each other (this will depend on your preference, river conditions and participants' ages). Some schools are carrying out the identification stage on the riverbank and some take their samples back to school for counting. The results must then be sent back to the Wear Rivers Trust to begin building up a record of riverfly life and we strongly encourage you to keep a chart in the classroom for children to update so they can see patterns developing month-by-month. We also have a dedicated website which each group will receive log-in details for, where children can upload and share their data with other schools and volunteers and compare data from other parts of the catchment. If an uncharacteristic drop in riverfly populations is recorded, the Environment Agency will be notified so they can investigate potential pollution problems.

Given the investment of time, training and kit, we ask that schools and groups sign up to the project for at least a year and endeavour to collect data each month. Throughout the whole process you will be supported by the Trust's Education Officer who will be available to attend some sampling sessions, provide resources or deliver additional learning sessions, answer questions and help organise any spin-off activities inspired by the project.

What are the benefits?

- **Opportunity to collect real life data for the Wear Rivers Trust and Environment Agency** – the monitoring is distinctive among environmental projects because it enables children to collect data that is robust-enough to be of use to environmental organisations, therefore meaning that they will make a real difference to environmental protection
- **Monitoring process helps build a variety of scientific, numerical and wider skills** – children are encouraged to adopt a methodical scientific approach to surveying, making observations and recording and analysing data, as well as working in teams, developing confidence in new situations and learning about outdoor and river safety: all transferable life skills
- **Increased understanding of ecology from hands-on experience** – coming into direct contact with river life complements compulsory curriculum topics such as life cycles, food chains, links between ecosystems and human impacts on environmental processes. The Riverfly monitoring experience can be used to form the basis of lesson plans and help bring learning to life
- **Structured opportunity for learning outside the classroom** – a reason for getting children in your care out and exploring, encouraging them to make connections between what they learn in the classroom and how it relates to their local environment
- **Encourages young people to respect their environment** – participation in the project will help increase young people's environmental awareness and sense of responsibility as they learn about how people's actions can affect freshwater habitats

What now?

The next step is to contact the Trust's Education Officer Lizzie Willows who will answer any questions, help find you a sampling site and sign you up to the next training day. If you have a sampling site in mind then check it against these criteria: it needs to be safe and accessible for children, have a gravel/pebble bed and be as close to the school as possible. Some schools are able to walk to their site and some are travelling a short way by car/minibus.

Contact Lizzie on lizzie.willows@wear-rivers-trust.org.uk, 01388 488867 or 07880 189232

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