

Case Study

Riverfly monitoring on the Meon

Background

The Riverfly Partnership is a dynamic network of organisations representing anglers, conservationists, entomologists, scientists, water course managers and relevant authorities, working together to:

- protect the water quality of our rivers
- further the understanding of riverfly populations
- actively conserve riverfly habitats.

Riverflies spend most of their lives as larvae on the river bed, emerging as short-lived adult flies mostly in spring and summer. Riverflies are at the heart of the freshwater ecosystem and are a vital link in the aquatic food chain providing a valuable food source for fish, birds and mammals. Riverfly populations are affected by many factors, predominately water quality, habitat diversity, water level and flow rate.

There is widespread concern amongst the angling and freshwater community over the dramatic decline in riverflies right across the country; 83% (2015 EA Classification) of our rivers are failing to meet the standard of good ecological condition measured against the Water Framework Directive (Riverfly Census 2015, Salmon and Trout Conservation UK May 2016).

In 2007 the Riverfly Partnership launched a national initiative to allow interested groups to take action that will help conserve the river environment. The Anglers Riverfly Monitoring Initiative (ARMI) advocates for and provides training to local volunteer groups in a simple monitoring survey technique, recording the presence and absence of eight invertebrate groups, seven of which are riverflies. Any sudden changes in riverfly numbers can quickly and effectively flag up potential water quality issues, at the earliest opportunity.

Volunteer training session in the Meon



The project

The River Meon is a chalk stream and a 'principle brown trout fishery' fed by groundwater aquifers near East Meon, which swiftly flows through the South Downs and out to sea at Titchfield. The Meon is an important area for wildlife as well as for fishing; the South Downs National Park Authority (SDNPA) has installed wildlife cameras at points on the river, which have captured evidence of three successful otter broods in the past 12 months. In addition the river is the key site for the SDNPA's current reintroduction of the water voles.

Working in collaboration with partners to deliver these projects has enabled the SDNPA to establish good working partnerships with local landowners and fishing syndicates, as well as setting a good knowledge base of river work for the South Downs Volunteer Ranger Service, which could readily be expanded upon and diversified in becoming a new site for a local (Angling) River Monitoring Initiative, lead by the SDNPA Ranger Service

At the end of 2013 the project ran a number of riverfly monitoring workshops to train volunteers and landowners. Participants spent the morning learning the theory and the afternoon in the river, learning how to produce "kick samples". Trained volunteers were then issued kit (including waders, sampling trays and buckets), paired up (for health and safety reasons) and started their monitoring points.

A key decision was where to best place the monitoring efforts, for example downstream of watercress beds and sewage works. It was also important to consider practical factors such as ease of access for surveyors to enter and exit the river safely.

All data is sent to the River Meon coordinator and entered onto the Riverfly Partnerships on-line database.

“What a fantastic way to spend a morning, in a picturesque chalk stream in a hidden spot in Hampshire...”

Russell Cleaver, RMI volunteer

The outcome

There are currently 15 monitoring points along the Meon, which are surveyed on a monthly basis; 2015 was the Meon's first full year of monitoring in which a total of 112 individual surveys were collated. Contributing to the national database supports the broader research process that seeks to understand how and why riverfly species and numbers are declining, which is a first step in the process of identifying measures to counter poor water quality and safeguard the aquatic environment into the future.

With the support of a Riverfly Partnership accredited tutor, over 50 volunteers were trained during the course of six individual workshops. The project has also received invaluable on-going support from a retired RMI tutor.

The project has taken the opportunity to showcase the RMI work with external partners, demonstrating how monitoring points can be successfully achieved within their own geographical areas.

In early 2016 the project hosted the first local RMI 'get together' day, which provided a great opportunity to bring volunteers together from all parts of the Meon, to share their experiences and knowledge. In addition listening to guest speakers from the Environment Agency, Portsmouth Services Fly Fishing Association, and the Riversfly Partnerships, provided volunteers with the opportunity to be updated on both a local and national scale, as well as having a chance to refresh their identification skills.

Working with the Riverfly Partnership has helped bring together local anglers, conservationists, entomologists, scientists, watercourse managers and government agencies, thereby increasing the local knowledge hub of riverfly populations, supporting volunteers and others to actively conserve valuable local freshwater habitats.



Surveying in action

The future

Retaining volunteer and partner enthusiasm for completing monthly surveys can be challenging, however a monthly RMI "get-together" day has helped with this and the project plans to continue hosting the event in the future.

Catchment Invertebrate Fingerprinting work is currently being carried out by the Wessex Chalk Stream and Rivers Trust (WCSRT); this project focuses on river-bed aquatic life and is researching how they react to particular types of water quality pollution and habitat damage. The aim is to identify pollution hotspots on the rivers, which will then be addressed by WCRST and partners.

In showcasing the activity and achievements of the Meon RMI the project hopes that riverfly monitoring will be extended onto other river catchments, providing additional data to support further vital conservation work of freshwater habitats.

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<http://www.riverflies.org/rp-riverfly-monitoring-initiative>

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