SmartRivers
Data to help wild fish

Our rivers are polluted by a cocktail of chemicals, nutrients, sediment and sewage, and only 16% are considered ecologically healthy. Yet, despite the shocking figures, the coverage, resolution and frequency of our national monitoring regimes continues to decline.

Through SmartRivers, citizen scientists are helping to fill some of these monitoring gaps. Volunteers are trained to sample (adhering to regulator guidelines) and identify invertebrates relevant to their river to the highest taxonomic resolution possible. The results, in the form of species lists, are submitted to our free, open-access database.

How do the results - and the information they provide - help wild fish?

Assessing biodiversity

The invertebrate records produced allow us to assess invertebrate diversity and abundance, to highlight areas at risk.

As the foundation of the food web, changes to invertebrate communities alter the natural balance of river systems. This has implications for wildlife, like fish, that rely on invertebrates as a food source.

Invasive species & climate change

Our volunteers detect invasive species, providing better insight into their distributions.

Finding certain invertebrate species can also be indicative of climate change pressure.

Both climate change and the presence of invasives can change ecosystem functioning which impacts wild fish.

Water quality pressures

The species found at each site are input into our database, which generates a water quality 'scorecard' identifying the impact of organic pollution, nutrient enrichment, sediment, chemicals and flow stress.

This provides invaluable insight into the condition of the habitats wild fish populations depend on.

If you have any questions please contact
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