

RIVERFLIES: THE CANARY OF OUR RIVERS

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INTRODUCTION

Riverflies, along with other freshwater invertebrates, are at the heart of the freshwater ecosystem and are a vital link in the aquatic food chain. Their common characteristics of limited mobility, relatively long life cycle, presence throughout the year and specific tolerances to changes in environmental conditions make them good biotic indicators of water quality and useful indicators of change in local environmental conditions such as pollution, siltation and low flows.

MONITORING

The Riverfly Partnership has developed the Riverfly Monitoring Initiative to enable citizen scientists to assess and monitor the health of rivers in their communities. Anglers, conservationists, and concerned community groups can act as guardians of the river by using the standardised monitoring technique developed by the Riverfly Partnership. In effect they become an early warning system detecting fluctuations in river water quality and raising the alarm, so that relevant statutory bodies can investigate further. Data collected by citizen scientists is freely available to all from our database and has been used to successfully prosecute polluters, showing the power of citizen science.



Ephemeroptera - Mayflies



Plecoptera - Stoneflies



Trichoptera - Caddisflies

Riverfly Partnership established 2004, monitoring initiative launched 2007

3000 registered sites
1000 active citizen scientists
300 records uploaded per month

Over 42,000 records
New database about to launch!

Valuable tool in citizen science offering, engages volunteers with freshwater conservation



Citizen scientists preparing to survey



Citizen scientists learning how to kick sample

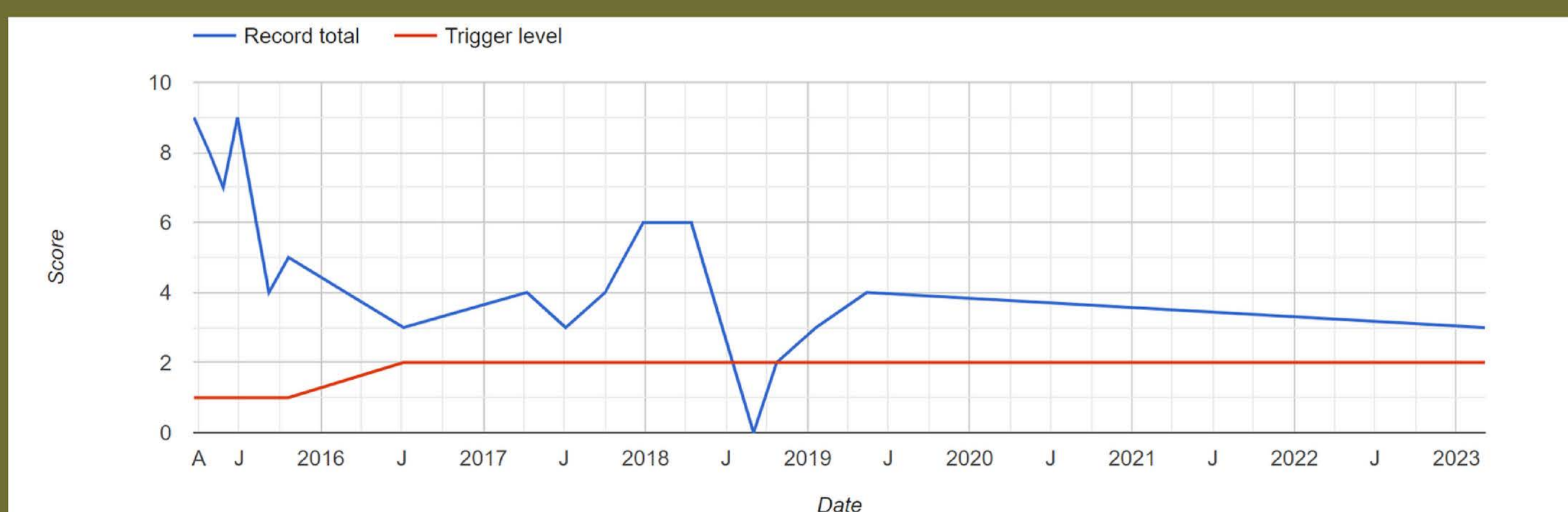
CASE STUDY - BRADFORD BECK

During the summer of 2018, Riverfly volunteer Robert Hellawell (right), noticed acute pollution and a fish kill on his local beck where he had been conducting riverfly monitoring for years. The data that Robert had gathered, compiled and given to the Environment Agency was used as compelling evidence of a serious pollution incident. After investigating further, the Environment Agency brought a case against Yorkshire Water in the summer of 2022. They pleaded guilty to 25 separate pollution incidents on Bradford Beck. A large storage tank in their sewer system was found to be malfunctioning and this led to unauthorised sewage spills. Yorkshire Water were fined £1.6 million for the pollution of Bradford Beck.



Robert Hellawell Riverfly Monitor and part of Friends of Bradford's Becks

GET INVOLVED!



Data submitted to the Riverfly Partnership database showing the decline in invertebrates when Mr. Hellawell sampled his regular site after the pollution and fish kill incident.



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