

riverfly recording schemes



Report 2010/11

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Riverfly Recording Schemes Report December 2011

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The Riverfly Partnership supports the work of the Riverfly Recording Schemes (RRS) through small grants to further the understanding and conservation of riverflies.

Introduction

The Riverfly Recording Schemes (RRS), established by the national recorders for caddisflies (Trichoptera), mayflies (Ephemeroptera) and stoneflies (Plecoptera), celebrates the common ground that exists between the three groups of insects. Caddisflies, mayflies and stoneflies are found in similar habitats as both young and adults.

The three recording schemes play an instrumental role in the Riverfly Partnership collaborating to:

Champion caddisflies, mayflies and stoneflies; produce identification guides; encourage and facilitate interest in riverflies; deliver training/recording events and contribute data to inform UK conservation priorities.

This report highlights RRS work 2010/11

This robust platform of work is the result of volunteer commitment. It is critical that resources are secured to build on this instrumental work, support and facilitate ongoing work of the RRS volunteer coordinators and help further our knowledge of riverfly diversity and ensure the conservation of healthy riverfly populations.

RRS 2012 Goals – pending resource investment (staff & funds)

- Facility for online recording for all species
- Delivery of RRS training courses for AMI volunteers keen to pursue species identification
- Development of case studies to further the understanding of life cycles of target species e.g. March Brown. Foundation work to underpin future conservation projects
- Development of protocol for conservation practices, in collaboration with the statutory bodies, regarding boosting or reintroducing riverflies.
- Securing of funds for case studies of riverfly conservation
- Securing of funds to facilitate travel and accommodation expenses for in kind field work, enable presence at key meetings and events, development of promotional materials.
- Support to identify records
- Review of RRS webpages – to be integrated to www.riverflies.org

Riverfly Recording Schemes news and information

- www.riverflies.org
Plus Ephemeroptera Recording Scheme www.ephemeroptera.pwp.blueyonder.co.uk with online recording supported by Biological Records Centre
- The Riverfly Partnership quarterly e-newsletter (contact info@riverflies.org)
- Like 'Riverfly Partnership' on Facebook
- Follow '@Riverflies' on Twitter
- General and specialist press e.g. Gamefisher (biannual publication of The Salmon & Trout Association), Salmo Trutta (annual publication of The Wild Trout Trust)
- Identification guides to the riverfly groups published with The Field Studies Council & The Riverfly Partnership
- RRS leaflet (in press)

Trichoptera Recording Scheme including the Adult Caddisfly Occurrence Scheme

Trichoptera Recording Scheme (TRS) data

- TRS database currently holds approximately 243,000 records. General editing complete. 5% records require a vice county reference.
- Submission of data to Biological Records Centre (BRC)/National Biodiversity Network (NBN) planned spring/summer 2012.
- Trichoptera adult data (64,000 records) shared with [Biofresh Distribution Atlas of European Trichoptera](#) (DAET) European Project, organised by Peter Neu.
- 900 records received from light trap operators within 2 years.

Furthering our understanding of Trichoptera species

- *Synagapetus dubitans*, new caddisfly to Britain, discovered (Stuart Crofts).
 - Recorded in 4 sites, some distance apart. In habitats associated with depositing springs. Adult specimens only found to date.
 - Stuart Crofts working with University of Leeds to locate sites with similar geological profile – work ongoing.
 - ‘*Synagapetus dubitans*, a caddisfly new to Britain’ report produced. To be available on [Aquatic Commons](#) and from the Freshwater Biological Association (FBA).
- *Hagenella clathrata* Window winged caddis, Biodiversity Action Plan (BAP) species. Found at two new Surrey sites (Scotty Dodd).
- *Oxyethira mirabilis*. Found at new English and Scottish sites (Andrew Dixon).
- *Plectrocnemia brevis*. Collected from Northumberland (Ian Wallace) and Yorkshire (Stuart Crofts).
- *Psychomyia fragilis*. Located at a Cumbrian site (Andrew Dixon).
- *Leptocerus lusitanicus*. New records from light traps provide evidence showing distribution extending north from the historic base in south east England to Huntingdonshire.
- *Ceraclea senilis*. New records give evidence of distribution extending north from the historic base in south east England to Yorkshire (Environment Agency data) and Cheshire (Ian Wallace).
- *Glossosoma intermedium*. BAP species. Field work at Lake District sites by Stuart Crofts, Andrew Dixon and Louis Kitchen, and 6 days sampling at potential Cairngorms sites by Stuart Crofts and Andrew Dixon. No specimens found, however over 500 other invertebrate specimens were identified from the Cairngorms survey – report in progress.
- Information and drawings provided by Stuart Crofts and Ian Wallace to Peter Barnard and Emma Ross for inclusion in a forthcoming Royal Entomological Society handbook – a key to adult caddisflies.

Raising awareness

- *Agrypnètes crassicornis* Malham sedge. Featured on [BBC Radio 4 Living World](#), fieldwork interview with Ian Wallace. No specimens found.
- Moth Recorders’ Newsletter article by Ian Wallace – highlighting the caddis by catch in moth traps. Led to submission of records from moth trappers.

News

- Ian Wallace appointed FBA Honorary Research Fellow

Goals 2012

- Use the TRS database to establish validation “rules” to other Trichoptera Records on NBN.
- *Agrypnetes crassicornis*. Produce identification resource and habitat management sheet. Establish a monitoring programme to assess the health of the population for this species currently known at only one site in the UK – Malham Tarn.
- *Hagenella clathrata*. Establish a monitoring programme
- *Glossosoma intermedium*, Undertake further surveys in Scotland, funding dependant (Stuart Crofts and Andrew Dixon).
- *Synagapetus dubitans*. Further understanding on presence and abundance.
- Advance publication and taxonomy projects, in particular information to enable identification of difficult and unidentifiable species at the larval stage.

Ephemeroptera Recording Scheme

Ephemeroptera Recording Scheme (ERS) data

- Currently 184,848 ERS entries shared on the NBN Gateway.
- Further datasets being entered by BRC.
- Online recording: 45 records verified; 2 rejected
- Backlog of adult specimens to ID during 2012.

Furthering our understanding of Ephemeroptera species

- *Heptagenia sulphurea*, yellow may dun. 17 records from online recording
- *Rhithrogena germanica*, March brown
 - Good response from public survey*, records to be collated 2012.
 - 20 records from online recording.
- *Ameletus inopinatus*, upland summer mayfly.
 - Research into altitudinal and geographical distribution in a changing climate, to infer long term implications for the species.
 - Research by Craig Macadam, Louis Kitchen, Clyde River Foundation and University of Glasgow.
 - Two research projects, including one MRes completed, second MRes project ongoing with Clyde River Foundation and University of Glasgow, joint supervised by Louis Kitchen.
- *Potamanthus luteus*, yellow mayfly. BAP species. Previously only known population on the River Wye.
 - Confirmed from River Teme (Severn Catchment) by Louis Kitchen and a team from the Clyde River Foundation in 2010.
 - Records from moth trap in Stourbridge in 2011.

Raising awareness

- *Ephemera danica*, green drake. Research by Nick Everall into changing lifecycle reported in National Geographic News – '[Short Life of British Mayfly Halved by Climate Change.](#)'
- Publication of *Potamanthus luteus* and *Baetis niger* southern iron blue dossiers.
- Articles published in [Biofresh Mayfly week](#).
- Launch of '[Mostly about Mayflies](#)' blog (Craig Macadam)

Goals 2012

- *Ameletus inopinatus*, upland summer mayfly.
 - Dossier to be produced.
 - Continue research into effects of climate change on the species.
- *Rhithrogena germanica*, March brown.
 - Dossier to be produced.
 - Research into egg-laying habits on the Tweed for development of Usk population reinforcement project.
- Re-validate existing data and prepare for future status review.
- Use the data base to establish "rules" to validate all the other Ephemeroptera Records on NBN.
- *Potamanthus luteus*, yellow mayfly. Investigate status on Worcestershire Stour and Teme.

Plecoptera Recording Scheme

Plecoptera Recording Scheme (PRS) data

- Currently 38,197 PRS entries shared on the NBN Gateway.

Furthering our understanding of Plecoptera species

- *Brachyptera putata*, northern February red. BAP species. Confirmed as endemic.
- *Perlodes mortoni*. Removed from synonymy with *Perlodes microcephalus*, orange-striped stonefly. [Peter Zwick 2011](#).
- *Diura bicaudata*, common medium stonefly. Mike Hammett reports potential misidentification with *Diura nanseni* in the UK.
- *Isoperla obscura*, scarce yellow sally. May have been found. Needs more work to separate from common yellow sally, *Isoperla grammatica*.
- Development of Mike Hammett's FBA key to Plecoptera is continuing. No date for publication as yet.

Raising awareness

- Publication of rare medium stonefly, *Isogenus nubecula*, and *Brachyptera putata* dossiers by Craig Macadam

Goals 2012

- Public surveys to investigate *Perlodes mortoni/microcephalus* species distribution in the UK.
 - Does *Perlodes microcephalus* occur in the UK?
 - Is *Perlodes mortoni* an endemic?
- Look for further specimens of *Isoperla obscura*.

Events 2012

Including riverfly courses by RP partner organisations (see also www.riverflies.org)

27-28 March. Freshwater Biological Association (FBA) course: Identifying freshwater invertebrates, FBA Windemere, Cumbria. Tutor: FBA Director Mike Dobson, Cost: £210; early bird rate £195; FBA member £185. Tel. 01539 442468 or email info@fba.org.uk

30 April – 4 May. Field Studies Council course: Identifying freshwater invertebrates. Field Studies Council (FSC), Kindrogan Field Centre, Perthshire. Tutor: Craig Macadam (Buglife Conservation Officer, RP AMI Tutor & Coordinator of the Ephemeroptera Recording Scheme). Non resident £154. Accommodation available. Tel 01743 852101 or email enquiries@field-studies-council.org

12 May. FBA course: Entomology for anglers Level 1. FBA Windemere, Cumbria. Tutors: Stuart Crofts (RP AMI Tutor) & Andrew Dixon. Cost £50. Details as FBA above.

26 May. FBA course: Entomology for anglers Level 2. FBA Windemere, Cumbria. Tutors: Stuart Crofts & Andrew Dixon. Cost £50. Details as FBA above.

12-13 June. FBA course: Identifying caddis. FBA Windemere, Cumbria. Tutor: Ian Wallace (RP Tutor) Cost: £210; early bird rate £195; FBA member £185. Details as FBA above.

16 June. FBA course: Identifying freshwater invertebrates: an introduction. FBA Windemere, Cumbria. Tutor FBA Director Mike Dobson. Cost £50. Details as FBA above.

21-23 June. National Moth Night. Date tbc - Join Ian Wallace at the Freshwater Biological Association, Windemere, for a moth trap event, with caddis the by-catch

23-24 June. British Fly Fair. Visit RP stand.

25 June - 1 July. National Insect Week (NIW) organised by Royal Entomological Society. NIW/RP competition for the best riverfly photograph. RES welcomes all organisations to hold NIW events - email NIW2012advice@aol.com

18-20 July. National Science Meeting of the Royal Entomological Society Conference, Cambridge. RP stand *ER/CM*

20-22 July. CLA Game Fair, Belvoir Castle, Leicestershire. Visit the RP on The Salmon & Trout Association stand

7 October. Game Fishing & Fly Tying Festival, Burton-on-Trent, Staffordshire. Visit Stuart Crofts at the RP stand.

23 October. FBA course: Organisms and their environment: an introduction to freshwater ecology. Location: FBA Windermere, Cumbria. Tutors: Alan Hildrew, Paul Raven, Allan Pentecost, Mike Dobson, Cost: £120; early bird rate £105; FBA member £95. Details as FBA above.

Events 2010/11

18 November 2011. Riverfly Recording Schemes meeting, Peterborough. Convener Craig Macadam.

2 & 3 September 2011. Freshwater Invertebrate Workshops in Glasgow and Inverclyde. BTCV Wildlife Counts workshops led by The Riverfly Partnership Riverfly Officer Louis Kitchen.

3 July 2011. Riverfly Partnership stand, with fly fisherman, caddis specialist and AMI Tutor Stuart Crofts at the Royal Entomological Society Insect Festival, York Museum Gardens.

18 June 2011. Identifying freshwater invertebrates. FBA Windemere, Cumbria. Course with the Freshwater Biological Association (FBA) by Mike Dobson.

28 May 2011. Entomology for Anglers at FBA Windemere, Cumbria. Course with the FBA by Stuart Crofts and Andrew Dixon.

16-20 May 2011. Celebrating the mayfly. A series of articles by Biofresh, Oxford University Centre for the Environment.

22-23 March 2011. Identifying freshwater invertebrates. FBA Windemere, Cumbria. Course with the Freshwater Biological Association (FBA) by Mike Dobson.

30-31 Oct 2010. British Fly Fair, Stoke on Trent. The Riverfly Partnership represented on The Wild Trout Trust stand.

21-27 June 2010. The Riverfly Partnership official partner to Royal Entomological Society National Insect Week 2010. Launch of competition for the best riverfly photograph.

1-4 June 2010. Field Studies Council course: Identifying caddisflies. Field Studies Council, Preston Montford Field Centre, Shropshire.

29 May 2010. Entomology for Anglers at Freshwater Biological Association River Laboratory, Dorset. Course with the FBA by Stuart Crofts and Andrew Dixon.

22 May 2010. Entomology for Anglers at FBA Windemere, Cumbria. Course with the FBA by Stuart Crofts and Andrew Dixon.

30 April - 2 May. Field Studies Council course: Identifying caddisfly larvae for biological surveying and recording. Flatford Mill, Suffolk.