



In this issue...

1. [Coordinator's notes](#)
2. [Riverfly Partnership Conference – breakout session feedback](#)
3. [Online data repository](#)
4. [ARMI hubs](#)
5. [ARMI training 2014/2015](#)
6. [Publications](#)
7. [What's the story Greenwell's Glory?](#)
8. [ARMI monitoring equipment update](#)
9. [Contact us](#)

(click the links above to go straight to the full article)

Coordinator's notes

A very belated Happy New Year to you all! Apologies for the delay in getting this edition to you, it has been a very busy start to 2015 but I hope you will find some interesting reading over the following pages. For my part I want to express sincere thanks for your continued patience while the data repository is geared up to capacity, by the end of March. I know that many of you submitted information about your ARMI hubs, groups and sites last year and it has been a slow process to get everything online but, with considerable help from Simon Stebbings and Alex Domenge, the inputting has picked up pace recently and I am confident that we will meet the March deadline; my continued thanks to you both. I know that all of you continue to be busy too and this year already promises to be an exciting one for RP and ARMI. As the network of dedicated volunteers continues to grow it is important that we collectively develop our capacity to work with the UK statutory agencies to conserve our freshwater ecosystems and improve water quality. I would like to finish by extending my own and the Riverfly Partnership's thanks to the Environment Agency for its continued support of ARMI.



Riverfly Partnership Conference - breakout session feedback

Excellent levels of feedback were captured during the breakout session, thank you to all contributors. Steve Brooks and Ben Fitch have now reviewed that feedback and produced the following summary. Any additional actions arising from your feedback will be communicated as appropriate.



Legend:

<p>RED = RP already actioned or scheduled to action</p> <p>BLUE = RP to follow up and schedule actions</p> <p>GREEN = to be delivered by ARMI hubs, groups and/or relevant statutory agency</p> <p>BLACK = additional, notable points*</p> <p>* ●●● after black text denotes respective relevance to more than one of the above</p>

Running a monitoring group or hub – *What works and what doesn't work?*

What do the monitors enjoy doing? How do you maintain motivation of the volunteers? How do you recruit and retain the volunteers? What interactions are required locally and nationally to maintain monitoring groups?

- **refresher training/support days are essential to retain and motivate volunteers – more please**
- **national guidance/standardisation for EA Ecology Contacts**
- **national EA ARMI lead to be in post and regularly communicate with Ecology Contacts**
- **RP blog, media coverage**
- **regular/biennial national conference**
- **quarterly newsletter**
- **click to contact website page**

Running a monitoring group or hub – *What works and what doesn't work?* (continued...)

- 'bug/riverfly of the month'
- variable levels of EA feedback, in many cases it is excellent but in others not enough is given
- visiting/comparing different ARMI sites is motivating
- personal contact between EA/individual monitors is mutually beneficial
- national EA ARMI meetings
- motivated by evidence that data makes a difference, e.g. when used by EA/water companies for positive environmental outcomes

Database – *What do you want from the database?*

Inputting and reviewing data, feedback, mapping, and further developments.

- circulation of user guide/guide to be regularly updated
- historic data import is essential
- easy access to raw data
- inbuilt logic check on abundance score/category
- mandatory abundance estimate
- online forum for coordinators
- message board for all
- allow for date parameters to be manually entered when scrutinising data
- mobile/tablet apps for data entry
- coordinator override facility for auto EA alarm, i.e. if trigger breach is known not to be pollution or EA is already aware
- EA specific login level
- auto email to coordinator after monitor enters data, i.e. verification reminder, including clear alert when trigger breach
- FAQs & IFAQs
- copyright free library of images
- new RP role for database support
- auto email to monitor if coordinator edits data during verification
- regular/seasonal EA review of trigger levels locally to remove threat of false breaches
- one page per site with photos, description, significant issues/management notes

Workshops and tutor accreditation – *Is the current package fit for purpose?*

Is the present workshop content format (presentation, fieldwork, literature) fit for purpose? What improvements could be made? Is the tutor accreditation process efficient? How can it be improved? How many tutors are needed for a hub? How frequent should support days be? How should quality assurance for tutors operate?

- presentation too long, fragmented and outdated
- more/improved H&S/biosecurity
- more video clips
- QA for tutor accreditation
- fold-out guide needs improving/updating
- tutor certificates
- relevance of history at ARMI initial workshop?*
- greater practical element
- online tutor database
- more INNS coverage
- enhance training regarding when to raise alarm to EA, i.e. false alarms when first monitoring, repeat alarms relating to an issue known to EA, etc.
- clear guidance with regard fish spawning and kick sampling, particularly salmonids
- group 'buddying' to relieve pressure on hub coordinator
- fresher/support days – one per workshop, 12 months later ••
- annual tutor refresher ••
- volunteer retention is a key issue ••
- who can train/accredit tutors?••

* establishes context and motivation behind ARMI

** prior to commencing accreditation prospective tutors must register with RP and be affiliated to an ARMI hub. Accreditation can only be undertaken by those tutors directly authorised to do so by RP, i.e. tutor accreditation **does not** permit any individual to accredit additional tutors.

Funding – *What funding opportunities are available to ARMI?*

Sources (local and national), potential funders and actual funders, what key angles should a funding application focus on and how should these be tailored to suit particular funding agencies?

- [RP brand sponsorship](#)
- [RP to establish donation arm, e.g. text donations, just giving, etc.](#)
- [water companies](#)
- [EA rod license levy for ARMI](#)
- [local government underspend](#)
- [Section 106 funding via parish councils, etc.](#)
- CaBA funding from partnerships within ••
- recording/monitoring grants ••
- individual/small ARMI groups can struggle to secure funding, hubs are essential to provide support and build partnerships for cross fertilisation of funds ••
- polluters fines direct to ARMI via EA ••
- Catchment Partnerships ••
- WFD linked in to funding bids ••
- routine, long term monitoring and community engagement offered to funders, e.g. water companies, statutory bodies ••

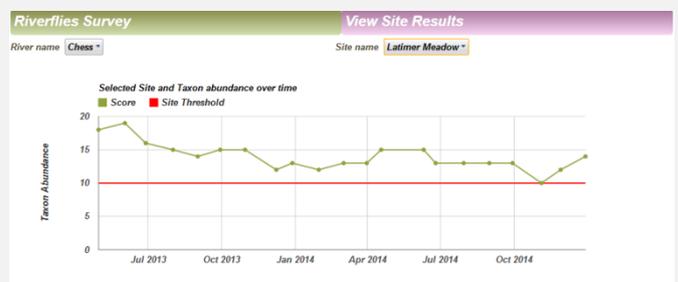
Riverflies Plus – *What else can be monitored?*

Is it a good idea to broaden the scope of ARMI beyond the 8 target invertebrate groups? What other things, in addition to the 8 target groups, would volunteers be interested in monitoring? What do you think about the ideas for Riverflies Plus already floated? What other monitoring initiatives could ARMI link to?

- [it should be optional for those who want to go further, but without overburdening those who don't](#)
- [methodologies and reporting need to be standardised](#)
- [tailored to suit localised issues, e.g. siltation, phosphates, INNS, etc.](#)
- [record additional species/groups of local significance](#)
- [ARMI works due to its simplicity, don't lose that](#)
- [ensuring data quality is of paramount importance](#)
- [INNS](#)
- [chemical water quality monitoring](#)
- [fixed point photography U/S and D/S every month](#)
- [move from ARMI to family, then genus level, then to species level](#)
- [catchment based monitoring to feed into catchment management planning & CaBA](#)

Online data repository

There are currently 489 UK ARMI sites online and fast approaching 1000 records. The task of inputting all ARMI hub, group, and site information, along with that of every UK catchment, river and statutory agency Ecology Contact, is progressing well, particularly since recruiting volunteer assistance from Simon Stebbings, Mimram ARMI coordinator and Alex Domenge, NHM. RP has set a deadline of 31st March by which time the data repository must include every active UK ARMI site. Simon, Alex and Ben are on track to meet the deadline with the only likely exception being information not sent to Ben before the deadline. In that event I will add outstanding information as it is made available by coordinators but ideally that scenario will be largely avoided. If you are an ARMI coordinator, yet to submit information for inputting, please contact Ben by email, ben@riverflies.org, at your earliest convenience and he will confirm the specific system requirements. A user guide for coordinators and monitors is now available to help you get started and though it is not yet online you can request it by emailing Ben as above.



ARMI hubs

RP is focused upon building on the current network of 21 UK ARMI hubs during 2015 and there are already some encouraging signs of this. At a meeting in York this January it was agreed that three hubs should be established to support ARMI across Yorkshire and discussions are developing around new hubs in Norfolk, Suffolk, Exmoor, Wales, and Northern Ireland. If you are interested in setting up an ARMI hub in your area please visit www.riverflies.org for details or email Ben Fitch, ben@riverflies.org.

On another note RP is pleased to announce that new tutors will receive official, numbered RP certificates in recognition of achieving accreditation. Existing tutors will receive their own certificates retrospectively over the coming months.

ARMI training 2014/2015

A record 54 ARMI workshops were delivered in 2014, representing more than 600 newly trained volunteers throughout the UK. According to information received from coordinators and tutors, only 6 ARMI support days were delivered during 2014, which is very low. RP recommends delivery of refresher training to all existing ARMI monitors on an annual basis to help ensure volunteer motivation and retention, both of which are central if ARMI is to continue successfully. ARMI hubs and the online data repository are also seen as key components to maintaining volunteer motivation through communication, interaction and support. If you are interested in arranging an ARMI workshop or support day please email Ben Fitch, ben@riverflies.org.



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Publications



It has been a busy winter as far published materials are concerned. The existing FSC 'River Invertebrate Monitoring for Anglers' guide has been rebranded to become the **Riverfly Partnership 'Riverfly Monitoring' guide**. A new cover image (left) featuring Alex Cripps from the Esk and Coastal Streams Catchment Partnership identifies the new edition, which includes new target group and online data repository images, updated biosecurity information and more. RP would like to thank Rebecca Farley-Brown and the Field Studies Council for developing and producing the guide which will be available to participants at ARMI workshops.

A **Riverfly Partnership 3 fold leaflet** is now in publication to help promote RP and ARMI and is available for distribution at local, regional and national events this year. Email Ben Fitch, ben@riverflies.org, for more information and to order copies for use at events in 2015.

Two new **RP certificate** formats have been created this year: one for individuals achieving ARMI tutor accreditation and another to acknowledge individuals who have made outstanding contributions to the Anglers' Riverfly Monitoring Initiative.

What's the story Greenwell's Glory?

by Craig Macadam



© Dr Cyril J Bennett

The Greenwell's Glory, for me, rates alongside the March Brown as one of the most famous fishing flies of all time. It is universal in its uses with the original winged wet fly being complemented by a variety of different patterns from dry flies (image) to nymph patterns.

The Greenwell's Glory was devised by James Wright in 1854 on the request of Canon Greenwell who required a fly to mimic the olives of the River Tweed. Over 150 years later the Greenwell's Glory is still going strong with modern fly tying materials providing a whole host of variants.

Almost every river will experience a hatch of one of the many species of Olive which the Greenwell's Glory can imitate. In general, these olives belong to the Baetidae family of flies. However this group also contains

the Spurrings, Iron blue duns and Pale watery dun. In addition, the Blue Winged Olive belongs to the family EphemereIIDae.

Baetid nymphs have highly streamlined bodies with flattened oval gills down each side. Their three tails are densely fringed with hairs, however the outer tails have hairs only on the inside edge. It is these tails which distinguish Baetid nymphs from other upwing fly species found in the UK. The middle tail of all members of the Baetidae family is much shorter than the outer tails with the exception of *Procloneon bifidum*.

Baetid nymphs are accomplished swimmers and any investigation of a waterbody usually reveals these nymphs darting to and fro at great speed.

Adult olives are easily recognised from other upwing flies. In common with other families, the olives have large, upright, fore wings; however, their hind wings are small and oval with a distinct spur-like projection. It is this feature which distinguishes the Baetid flies from other adult upwing flies from the UK.

There are five olives of particular interest to anglers fishing a Greenwell's Glory. By far the most widespread is the Large Dark Olive (*Baetis rhodani*). The Large Dark Olive is, as its name suggests, the largest olive. It is an early season fly which is widespread and common, hatches of which continue throughout the year. Their bodies are a lovely olive green or olive brown and their wings are a pale grey colour.

The small dark olive (*Baetis scambus*) has the longest window of emergence of any olive. These small upwing flies can be found on the wing from as early as February to the end of November. They prefer alkaline water as a rule; however this does not limit their distribution too much. Their wings are the same colour as the Large Dark Olive, although perhaps slightly darker. Their body is a greyish-olive colour.

Like the small dark olive, the medium olive (*Baetis vernus*) also prefers alkaline water. It is a relatively common species which is on the wing typically between April and October. Female specimens have brownish olive bodies with pale rings between each body segment. The males have greyish-olive bodies.

The final two olives of interest, the Pond Olive (*Cloeon dipterum*) and the Lake Olive (*C. simile*), have two subtle differences from other olives. The first difference is an etymological difference. Although these two olives still belong to the Baetidae family, they go by the name of Cloeon. The second difference is an entomological difference. Unlike the other olives, the Pond Olive and Lake Olive have no hindwings.

From their names, one would expect these olives to only ever be found in stillwater. However, both species can also sometimes be found in slower-flowing stretches of rivers.

The brown body of the Pond Olive is generally darker than that of the Lake Olive. In addition, the bodies of both species are slightly dark closer to the tails. Both the Lake Olive and the Pond Olive have grey wings, with the wings of the Pond Olive being slightly darker than those of the Lake Olive.

RP monitoring equipment update

RP have worked closely over the winter with official ARMI monitoring kit suppliers to update kit content in response to feedback from monitors, tutors, coordinators and others. Each standard kit will now consist of the following (one of each item unless otherwise stated):

standard hand net frame fitted with a woven mesh 0.5 deep hand net bag, large heavy duty tray, 8 section sub divided tray, two large pipettes, 'freshwater name trail' FSC guide, large 16L bucket with handle and lid, small spoon & paintbrush, two hand magnifiers.

Standard kits are available from [EFE & GB Nets](http://www.efe-uk.com) at a cost of £93.91, including VAT and you can order directly by visiting their new website: <http://www.efe-uk.com/home>.

You will note that the folding magnifier (no longer available), stopwatch and small buckets are no longer

included in the standard kit but the latter two items can be ordered from EFE & GB Nets, at additional cost, if required.



Contact us

If you have any questions or would like more information about the articles in this issue or if you would like to contribute something to the next issue please contact Ben Fitch: **Ben Fitch, Anglers' Riverfly Monitoring Initiative Coordinator, The Riverfly Partnership, c/o Burgate Manor, Fordingbridge, Hampshire, SP6 1EF, Mobile: 0771 4487 209, Tel: 0117 2303 505, Email: ben@riverflies.org, Skype: amicoordinator**

For more information about the Riverfly Partnership and ARMI visit:

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