

What's Beane Happening?

The newsletter of The River Beane Restoration Association
Issue No 32 Summer 2021



Welcome

We thought you would like to see a picture of what a chalk river should ideally look like. Sunlight on the crystal clear water revealing a gravelly bottom, great for fish to spawn in, and patches of water weed trailing in the slow moving current. You are probably thinking, 'Aah, if only our own river was like this.' Surprise... the picture was taken by Bob Thornton in June as he walked through Waterford Marsh! We are all working hard to get more of the river looking this healthy. 'All', of course, includes the Herts and Middlesex Wildlife Trust (HMWT), the Environment Agency (EA) and Affinity Water. More on Waterford Marsh later, and amongst other things, a plea from Sarah Perry (HMWT) to support a petition to give the EA more powers to protect rivers.

The first RBRA working party since lockdown (a report from Peter White)

Himalayan Balsam is a non-native invasive species of flowering plant that is seen in several places in the Beane valley. This fast-growing annual plant sheds seeds that float downstream, and so it rapidly spreads. Summertime Balsam growth shades out native vegetation, but in the winter it dies back leaving the banks exposed to erosion from winter floods. The best way to control Balsam is by hand-pulling the plants before they flower and set seed. An enthusiastic band of volunteers from RBRA and HMWT took part in a 'balsam bash' at the Wychdell flood meadow on the Stevenage Brook – a key tributary to the Beane – on 29 June. This large area on the edge of Stevenage contains significant amounts of balsam, and so is a major seed source. RBRA's volunteer insurance cover was not quite ready at the time, so this first task for our new 'action group' was run as an HMWT event and led by their Living Rivers Officer, Sarah Perry. Follow-up tasks this year and in subsequent years will be run direct by RBRA. Thank you to Sarah for helping us here, and to Brian, Gerry, Pete, Dave, Marian, Bob and Pierre for their time and efforts.



Himalayan Balsam has pretty pink flowers (see right) but not everything that is pretty is benign! Well done to the volunteers for producing the pile of 'bashed' balsam to the left.

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These pictures are of the first RBRA 'volunteer action group' task – balsam bashing on Stevenage Brook.





Riverfly Monitoring – citizen science on the River Beane

We often refer to riverfly monitoring in our newsletters and several people have asked to have a fuller explanation of what it is all about. Here **Bob Thornton**, our riverfly coordinator, explains the theory and practice and gives an invitation for new volunteers.

Healthy rivers are able to support many diverse habitats. We now know the modern world has been putting these habitats under extreme pressure and in some cases has caused the breakdown and disappearance of once thriving habitats. So it is vitally important that there are people and organisations which take it upon themselves, usually in co-operation with others, to look out for changes in habitats and raise alarm bells when there are signs of deterioration. One such organisation is the Riverfly Partnership. Originally initiated by fishermen all over the country to monitor the health of the rivers where they fished, and now involving a much wider group of volunteers, the work involves surveying particular groups of organisms living in the riverbed. These organisms are the invertebrates which are an essential food source for fish. These invertebrates also happen to be particularly sensitive to water pollution. So surveying eight target groups, living on the river bed, provides a low tech high quality citizen science project for monitoring the health of rivers.

The eight target groups include the larvae of cased and caseless caddis flies (Trichoptera), mayflies (Ephemeroidea), blue-winged olives (Ephemeroidea), flat bodied (Heptageniidae), olives (Baetidae), stone flies (Plecoptera) and finally freshwater shrimps (Gammarus). The sampling method is as follows. A 10 to 15 metre stretch of the river is selected to be the sample site. The river bed is kicked for three minutes (see above) ensuring that the different micro habitats in that area are sampled, and the disturbed organisms are collected in a net as they are washed away in the current. A one minute of manual stone rubbing completes the sampling. The contents of the net are then rinsed to get rid of as much silt as possible. The sample is placed in a wide tray (in aliquots if necessary), the target organisms are identified and separated into a division tray and ultimately counted.

Each organism count is given a score based on a logarithmic scale. So a count of 1 to 9 scores 1, 10 to 99 = 2, 100 to 999 = 3 and above 1000 = 4. Sampling at any one site typically happens monthly or every two months. These scores are totalled giving the site a final score. After a number of samples the EA will assign a 'trigger level' for that site, which is a score below which, when reported to the EA, will trigger an investigation by the EA into a possible pollution event. All scores are collated on to a national data base.

On the River Beane there are currently 9 sample sites from Aston Ford to Waterford Marsh, and there is one site on the Stevenage Brook at Wychdell. If anyone is interested in taking part in the project and would like to do a day training course please contact me through the RBRA. I would like to thank all volunteers past and present for their commitment to sampling the Beane and Stevenage Brook over the last 8 years. I would also like to thank the Riverfly Partnership and the Herts & Middx Wildlife Trust for their support.

The charts below show a sample of results gathered over the last 8 years at Stapleford. Where there are blanks on the first chart no sample was taken. The first bar on each chart should be ignored, it's a scaling bar.



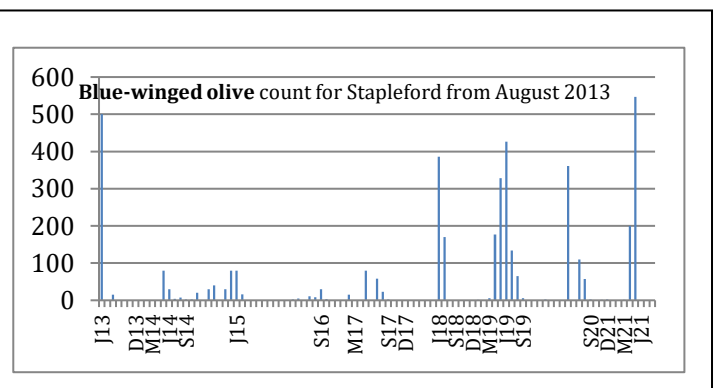
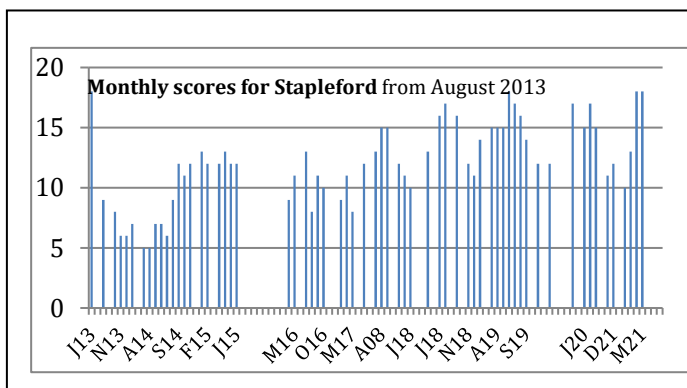
Identifying and counting the species



Above - Adult caddis fly
Below – Cased caddis fly nymph.
You will see it has covered itself in small stones. They also hide in small pieces of broken plant stem. However, some don't do this and are called 'caseless'.



May fly nymph



Waterford Marsh - Update



The view to the left is looking towards the road bridge at the southern end of the marsh where a breach has occurred causing the Molewood Mill Race to dry up. **Marcella Randall**, RBRA member and Stapleford Parish Councillor, gives us an update on this and other issues relating to the marsh.

One of the best stretches of the Beane is at Waterford Marsh where river levels have always been healthy. The area is flood plain, sometimes literally, during winter. The Marsh has been popular for so long because it is common land, with good access for the public. There are major rights of way here, one of which, along the river's edge, forms part of the Hertfordshire Way. Another footpath links with HMWT reserve Waterford Heath under the railway through Great Molewood

Stapleford Parish Council (the PC) owns and manages the 11-hectare Marsh and that responsibility comes with costs, of course. Keeping vegetation at a reasonable level, for example, is much helped by cattle grazing each year – and recently the PC has had to pay for some of the large black poplar trees along the main path to be trimmed and made safe as they have aged and are breaking up. But input from Hertfordshire County Council's CMS team (now CROW) has been a major support across the Marsh in recent years and continues to be so.

Since the breach occurred at the 'Horseshoe Weir' at the southern end, however, water levels have dropped significantly along the Marsh. The PC doesn't own the land surrounding this old weir and there has also been a major impact to the South, such that the millrace into Hertford has dried up. While these are negative impacts there are also gains in that the natural flow has improved and so have the plant species and so on now appearing (*see the photo at the beginning of this news letter*). It's clear that a more authentic chalk stream habitat is emerging and will hopefully help various invertebrates, birds and mammals to thrive longer term.

In the near future, however, dealing with the downsides will continue to be a challenge. The breach has widened over recent months and some of the old walls along the Marsh banks have begun to collapse as well. So the PC, with help from CROW, the Environment Agency, and other RBRA partners hope that solutions will be found, the breach site made safer and that some flow along both channels to the South might be restored if possible.

Editor's note: The RBRA is delighted to see the improvement in the river as it flows through the marsh, but we would also support any solution that could restore flow to the mill race without having a negative impact on this improvement. We very much hope that the studies that are taking place at the moment have a positive outcome.

Please sign the petition!

(A plea from Sarah Perry, Living Rivers Officer, HMWT)

Hi everyone

A bit of a plea for support signing a petition that Salmon & Trout Conservation Trust are currently hosting, should you feel inclined to do so :)

In an attempt to improve our chalk rivers, S&TC are calling for the Environment Agency to be given the funds and freedom to protect English rivers - 75% of which are in poor ecological condition! They need to reach 100,000 signatures by November to instigate a Parliamentary Debate... and have less than 5k right now.

As one of our major partners, it would be great to see the EA be given greater resources and powers to enforce regulation on our rivers, something HMWT have been asking for through recent consultations and campaigning.

Here's the link <https://petition.parliament.uk/petitions/586378> (CTRL + click)



We now have a sponsor for a board like the one above to be placed at the ford in Walkern. We are very grateful. If anyone is interested in sponsoring a board at Aston Ford or Whitehall please contact our secretary, Dave Standing.

Secretary: David Standing rبرا.secretary@gmail.com

Treasurer: Andrew Bott

River Fly Monitoring: Bob Thornton

Bore Hole Monitoring: Dave Ashby

WBH Editor: Philip Hewett

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