The Hogsmill in May 2017

Need a rest from the election and BREXIT? Then why not explore the Hogsmill River somewhere between its source by Bourne Hall in Ewell and its mouth by Charter Quay in Kingston!

![Bourne Hall Lake](image1) ![Charter Quay](image2)

This newsletter summarises the results of River Monitoring Initiative (RMI) sampling on the Hogsmill in May, together with other pollution monitoring and River-related activities and events.

The RMI is a national scheme for monitoring the health of rivers. Volunteers undertake regular surveys using a standard net sampling technique to count the number of certain “water quality sensitive” invertebrates. An overall “score” is then calculated. A sharp fall or a drop below a “trigger” level could indicate a pollution event. This can then be reported to the Environment Agency (EA) to enable further investigation.

Misconnected wastewater pipes and cross-connected sewers that feed into outfalls are a major source of pollution in the Hogsmill. Under a Pollution Patrol scheme organised by the South East Rivers Trust (SERT) volunteers undertake regular assessments of the outfalls thought most susceptible to pollution, the results being reported to EA and Thames Water (TW) to help steer remedial work.

The River in May

Another month of weather extremes: the first few days were largely dry making a period of over 6 weeks with negligible rain. But in the week up to the weekend of the 20th - the scheduled time for RMI sampling – there was almost 60mm of rain, before dry weather returned again.

This had a large impact on the depth and flow of the River. At EA’s Monitoring Station near the Hogsmill Tavern the level remained fairly stable until the downpours and then jumped by over 40cm at one point before falling back rapidly. At the time of sampling at Berrylands, the level was about 10cm higher than in April and nearly back to normal. But at many of the other sites the level still appeared unusually low.
The strong water flow following the heavy rain flushed away much of the evidence of pollution that had been building up around many outfalls during the dry spell, though with dry weather again later in the month this started to appear again. The Ewell Storm Tanks also overflowed after the rain.

The most notable pollution incident in May was a mysterious “gurgling and spouting” pipe near the Railway Bridge in Ewell. This was noisily discharging large amounts of foul smelling grey liquid into the Hogsmill, but being in a largely green area it had no obvious source. Thanks to EA’s detective work the cause has been traced to contaminated and stagnant water; and work is in hand to achieve a quick resolution. (If you see pollution, please call the EA Hotline: 0800 80 70 60; and if possible take a photo.)

But the prize for “horrid outfall of the month” for May goes to the outfall on the downstream side of the A240. This is regularly polluted, but was particularly bad after the dry spell with scum on the surface of the water stretching some way downstream.

![Ewell Railway Bridge outfall](image1.jpg) ![A240 Downstream outfall](image2.jpg)
What appeared to be fishing lines have been seen hanging from branches overhanging the River at a couple of spots alongside Elmbridge Meadows where chub are known to live. These had already been removed before there was an opportunity to tackle them. But as the line is hard to spot please keep an eye out.

![Possible fishing line by Elmbridge Meadows](image)

In response to the recent trigger level breaches in our RMI sampling, EA have conducted their own more detailed invertebrate surveys at the Ewell Storm Tanks and Sewage Treatment Works sites. These have produced similar results to our surveys with low RMI scores and low incidence of pollution-intolerant species. They attribute these to problems with outfall pollution in the areas exacerbated by low river flow.

**Hogsmill RMI in May**

The Hogsmill RMI programme currently covers 7 locations from Green Lanes Ewell to Middle Mill in Kingston. As an urban river with many outfalls, the monitored species we find are mainly olives, gammarus and caddis.

In May only 5 sites could be surveyed, all on the 19th or 20th. Despite – or perhaps because of – the weather extremes, the scores were closer together and mostly higher than in April. The main features were:

- A score of “6” at Berrylands, the highest for 2 years. This was based entirely on olives and gammarus. We wondered whether heavy rain had flushed these from further upstream, though the only previous times when counts were this high were in the summer of 2014 after dry spells;
- Scores of “8” and “7” at the Green Lanes sites, in line with historical averages, although down from the April record at the upstream one. These are the nearest sites to the Ewell pollution incident, perhaps suggesting this did not have a major impact on water quality;
- Improvements on April’s low scores at both the Bonesgate and Middle Mill sites.

The detailed results are below:
Behind these headline scores, there were some notable individual species counts:

- A major recovery in gammarus, the numbers of which were around double or more the low April counts at all 5 sites although similar to the numbers in May 2016 at 4 sites;
- Widely varying olive counts: the highest ever at Berrylands and the lowest ever at the upstream Green Lanes site. We cannot think of an obvious explanation for these extremes; and
- Another count of 100 plus cased caddis of varying sizes at the Green Lanes upstream site - perhaps also a sign that the impact of the pollution incident was limited, as caddis are particularly sensitive to pollution - and a substantial number of small “black stick” cased caddis at Bonesgate.

![Graph of Total Score Hogsmill May 2017](image)

There were also some unusual “catches” of other species this month:

- At Green Lanes, what we think is the first time we have “caught” a damselfly nymph, which contrasts with the demoiselle nymphs found at several sites including Berrylands;
“I’m greener than you, Demo”

“But my horns are bigger, Damsel”

- What are thought to be diving beetles and larvae at Middle Mill; and “mystery critters” that could be the larvae of another beetle at Berrylands;

- Relatively few adult bullhead, but a large number of small ones and fry; over 40 fry were counted in the trays at 2 sites.

**Counting the slippery ones!**

With the help of volunteers and other organisations, the Zoological Society of London (ZSL) is working to conserve the European eel in the Thames Basin. This amazing fish is thought to start life in the Sargasso Sea; to cross the Atlantic to spend much of its life in European rivers, like the Hogsmill; and then to head back to spawn. Numbers have fallen dramatically since the 1980s and it is now classed as “critically endangered”.

Part of the work is monitoring upstream migration at 13 sites in the Thames Basin. One of these is Middle Mill on the Hogsmill in Kingston. An eel “trap” is “activated” for about 6 months a year and is “emptied” regularly by volunteers who record numbers and sizes of eels. Another part is the removal or mitigation of barriers to eel migration. Since last year two substantial improvements have been made downstream of Middle Mill: an eel pas on the Kingston Gauging Station and new eel “tiles” under Clattern Bridge.
Eels have been monitored at Middle Mill since 2011. Although numbers “caught” have increased slightly over time, they remain low: 27 in total in 2016 compared to 100s and even 1000s at some other Thames sites. But we are hoping to see an impact this year from the improvement work. Monitoring began in late April and, while it is early days, signs are encouraging.

If you go down to the River today....

You’re sure of a big surprise! Most of the nearly 7 miles of the Hogsmill from Ewell to Kingston has public access to the bank, largely in a green corridor. This is a great time of year to visit: the vegetation is lush and verdant, which attracts a wide range of wildlife, and there are youngsters about!

Here are just a few of the delights that can be seen on the way. In Ewell there is new life on Bourne Hall Lake; and flag irises and other plant life around the old mill sites.

Middle Mill eel “trap” Clattern Bridge tiles: “I fancy eel for lunch!”

“There must be tons of eels in here!” “... well 3 big ones at least”

“Will I grow up to look like you, Mum” Lower Mill pond
In the grounds of Ewell Court House a variety of wildfowl - native and “foreign” - live and often squabble around the Lake; while across the old packhorse bridge the woodland trail leads to the Hogsmill Local Nature Reserve where those who are lucky enough might catch a glimpse of the roe deer that live in the copses.

“Go home you pesky foreigners!”

Packhorse Bridge at Ewell Court

In Old Malden across the River from St John’s Church lies Six Acres Meadow: a haven for wild flowers at this time of year and thought to be the backdrop for Millais’ painting of Ophelia. Nearby in Knollmead the Local Community garden is a feast of colour.

Six Acre Meadow

Knollmead Community Garden

Across the A3 in Elmbridge Meadows the lush vegetation attracts butterflies and insects. Regularly a heron and occasionally an egret can be seen, hoping to feast on the plentiful fish along this stretch of the River.

Female orange tip

Heron near Green Lane Bridge

In Berrylands, Friends of the Hogsmill Nature Reserve can take advantage of its new facilities or see proud parents parading their broods from the hide that overlooks the Lake.
New volunteers are always welcome...

If you would like to become a RMI volunteer, the next training course is planned for September 30th at Kingston University, but potential recruits are welcome to come along to our monthly sampling sessions before then.

EA are running a Fish ID Training session for volunteers on Tuesday 11th July from 10am to 2 pm. This will be held at the Snuff Mill in Morden Hall Park and will include witnessing an electrofishing survey. If you’re interested in attending you can register on Eventbrite at: https://www.eventbrite.co.uk/e/pollution-patrol-fish-id-training-with-the-environment-agency-tickets-34825418765

For more information on this training or other volunteering opportunities contact Polly Bryant at SERT: polly@southeastrivartrust.org

If you would like to know more about eel monitoring contact Sivi Sivanesan: s.sivanesan@kingston.ac.uk

If you would like to become a Friend of the Hogsmill Nature Reserve in Berrylands please contact Kristine Boudreau: kristine.boudreau@thameswater.co.uk

Comments on this newsletter and suggestions and contributions for future editions would be very welcome. Please send these to Peter Short: rpetershort@hotmail.com

- A bit about their biology and the habitats they require to live
- An outdoor session with the Environment Agency to witness an electrofishing survey and see some up close.
- A lunch to thank you for your hard work as one of our Pollution Assessment Volunteers.

What species you are likely to find in your river and how to ID them? This may help when reporting pollution issues in the future.