

## The Hogsmill in February 2023

For once a quiet month along the Hogsmill with the river looking serene though sluggish; and while the landscape is still mainly grey, there are a few signs of spring including riverflies already taking to the wing.



The birds have become more vocal and active, with many taking advantage of snacks left by the riverside, while others have preferred to look at what might be available beside or in the water!



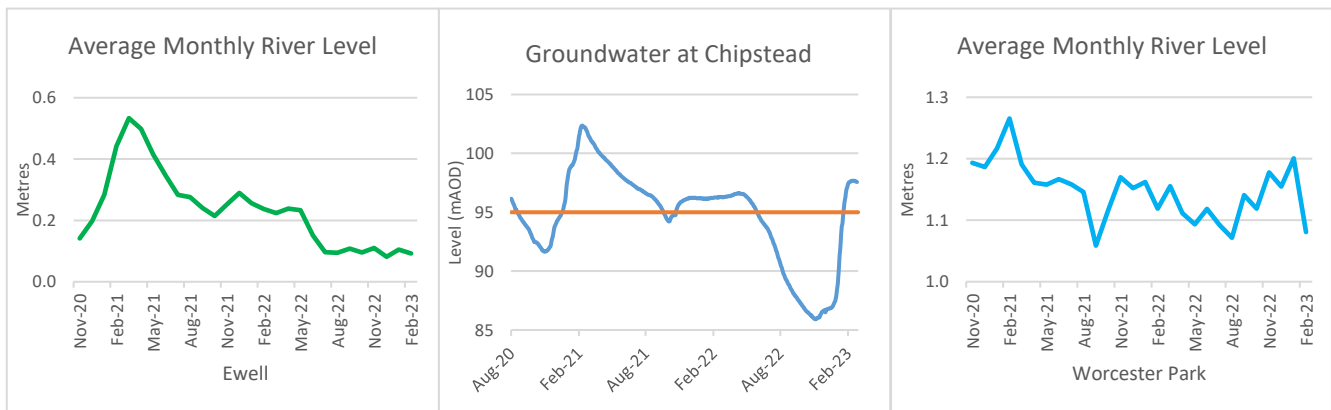
(Photo thanks to Pauline)



This newsletter looks at what is happening to the natural world along the Hogsmill, including the problems it faces and volunteer activities to monitor and restore its habitat, working with the South East Rivers Trust (SERT) and other local groups and alongside the Environment Agency (EA) and local water companies.

## The Hogsmill in February

There's been another big switch from heavy rainfall around the turn of the year to barely any rain since mid-January. The water level and flow upstream have hardly changed as they are still dependent on water company top-up. Despite a large recent rise in the aquifer, the springs have not yet started to flow; and water in the aquifer now seems to have peaked, which doesn't bode well. But there has been a sharp fall in water levels further downstream back to around the lows seen last summer, with drops in flows down the tributaries being particularly noticeable, perhaps surprising quite soon after substantial rain.



One factor behind low river levels is water company abstraction from the aquifer that feeds the Ewell springs. A 3-year study commissioned by Thames Water (TW) and SES Water into the impact of this abstraction and of the top-up to the upper Hogsmill and its ecology is nearing completion. This is intended to inform their next set of Water Resource Management Plans (WRMP), drafts of which have been published.

WRMPs are produced every 5 years. They form the basis of the 5-year Business Plans for spending, charging etc that are approved by OfWat as part of the regulatory regime, but also look ahead at how the expected demand and supply of water might be matched over the next 50 years, a massive challenge in a “water-stressed” area like London. The drafts are technical documents, but SERT has produced summaries of the main points: [www.southeastrivertrust.org/have-your-say-on-your-local-water-companys-five-year-plan](http://www.southeastrivertrust.org/have-your-say-on-your-local-water-companys-five-year-plan).

For the Hogsmill, the main interest is that reductions in abstraction from the Epsom downs have been included in the draft plans – a cut of nearly three-quarters for TW. This is welcome but is likely to come under scrutiny because of concerns about the cost and impact of the proposed alternatives so it would be good to support it. Customer feedback is an important part of the process; and there's still time to comment on the TW Draft for which the deadline is March 21<sup>st</sup>: <https://thames-wrmp.co.uk>

One of the other areas the Plans address is the implications of the growing population and housing in the area. Some of the more direct impacts of this on the Hogsmill have become more apparent recently with

further “nibbling away” of the greenspace and wildlife corridor along the river. The large developments at the former mill sites in Ewell and Worcester Park are now nearly complete, highlighting the extent to which their close proximity overshadows the river. The last remaining field by Old Malden Lane is also now being developed for housing, again built right by the banks, while further work is underway on the opposite bank, though not at present for more housing!



Riverside Mill



Lower Mill Ewell



Old Malden Lane



It’s been a bad month for pollution. The size of the effect of January’s oil leak in the Green Lanes Stream has become clearer with a surface “slick” visible as far down as the A240 and patches of oil floating up from the bed and coating some river dwellers when we did sampling nearer the source. There has also been another pollution “incident” at Moor Lane on the Bonesgate, prompting the deployment of booms and sandbags.

With the dry spell, there haven’t been any spills at the Ewell and Epsom Storm Tanks. But the “Drizzle Tanks” at the STW have been recorded as spilling 3 times in the past month, 2 on days with negligible rain. This follows over 25 days of spills in the last 4 months of 2022, around half of which were at times of little rain. Some of the “regular polluter” outfalls have also been looking particularly nasty.



A240 Bridge



Moor Lane  
(Photo thanks to Robb)



Surbiton Hill Park



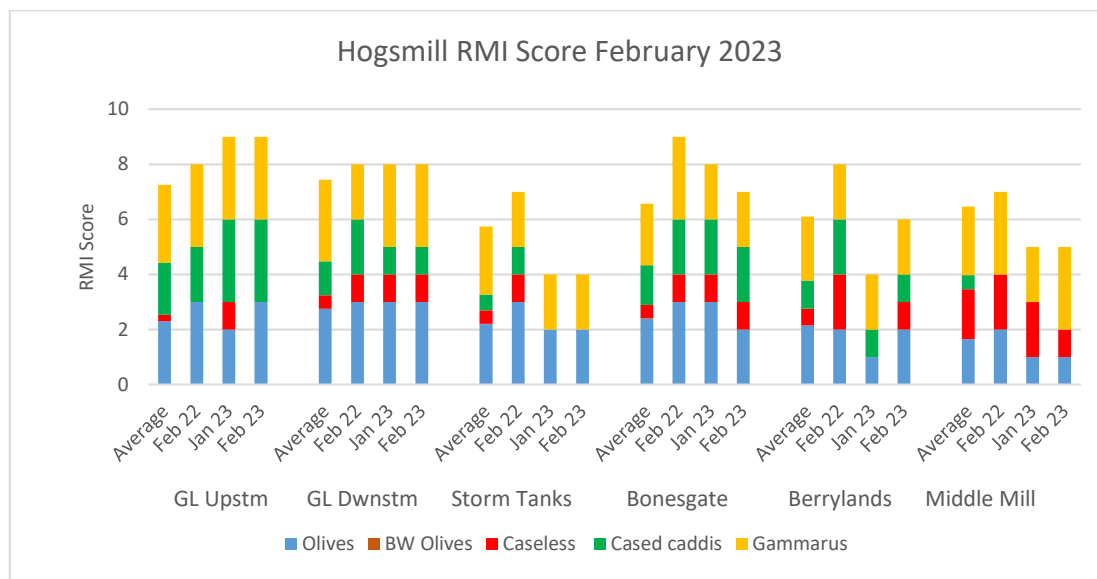
Malden Way South

If you see pollution in the river or indications of possible pollution, such as dying fish, please call the EA Hotline: 0800 80 70 60, and ideally take a photo. You can also contact Thames Water on: 0800 316 9800 (option 2); on: [www.thameswater.co.uk/help/emergencies/pollution](http://www.thameswater.co.uk/help/emergencies/pollution); or on twitter: [@thameswater](https://twitter.com/thameswater).

## Hogsmill RMI in February

The River Monitoring Initiative (RMI) is a national scheme that uses “scores” based on counts of a few “water quality sensitive” invertebrates collected in net samples to assess river health.

The 6 main-river sites were surveyed between February 16<sup>th</sup> and 18<sup>th</sup>. For a change we had mild conditions with water levels slightly down but this does not seem to have had an immediate effect on the results, which were similar to January’s though mostly down on February last year:



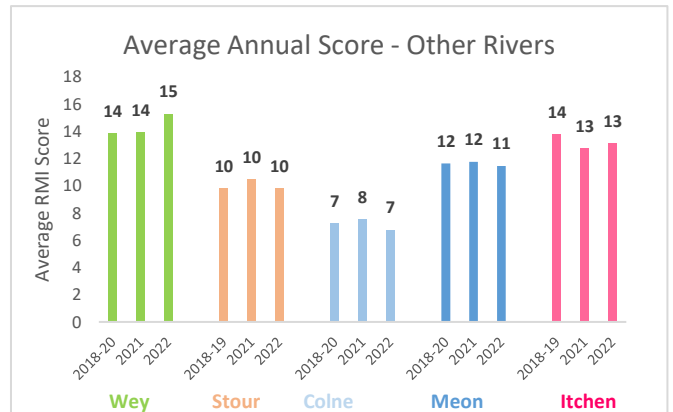
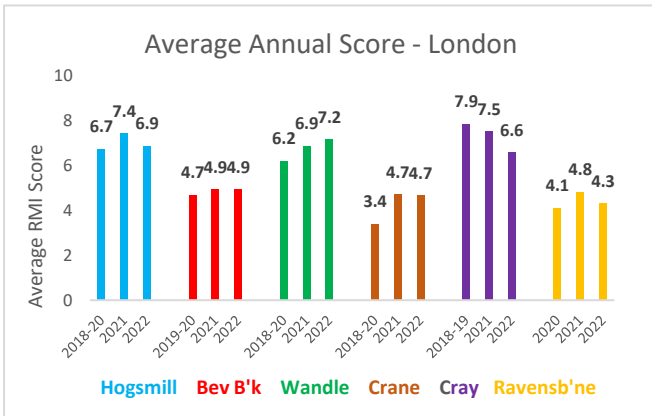
- The highest scores were again at the Green Lane Stream sites with another early bumper crop of cased caddis upstream and high numbers of olives and gammarus at both. The remains of the oil spill were clearly visible downstream and while this didn’t appear to affect the results this time, some fish and gammarus seemed sluggish in the oily patches so there could be problems going forward;
- Results at the Ewell Storm Tanks and Middle Mill remained poor with scores below or just above the “breach” level. For the third month in a row no caddis were identified at the Storm Tanks while the caseless caddis count at Middle Mill was well down on its usual level;
- Patches of oil were also visible around the Bonesgate site and this is the one closest to the pollution incident at Moor Lane. It is the only site where the score fell this month and counts were also down, but the changes were not especially large and results were still in line with the historical average;
- The score at Berrylands was up to “6” from the “4” in January. But this gives a false picture of improvement; numbers were only up slightly and remain very low: only 40 specimens were counted in total, only about a quarter of the long-term average;
- One bright spot is that overall counts increased substantially, with olive and gammarus numbers both up by about a half from January levels, and the largest total since last July.

## How did the Hogsmill's experience in 2022 compare with other rivers?

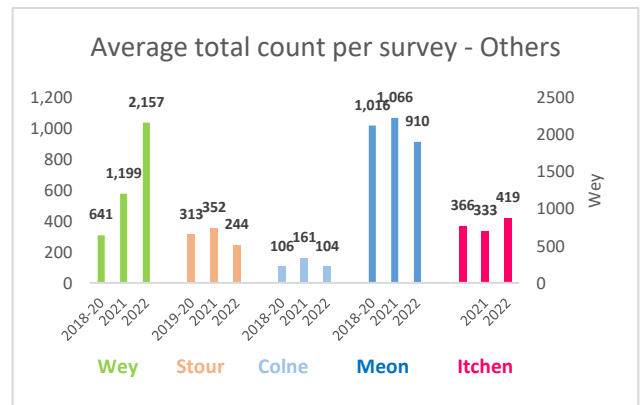
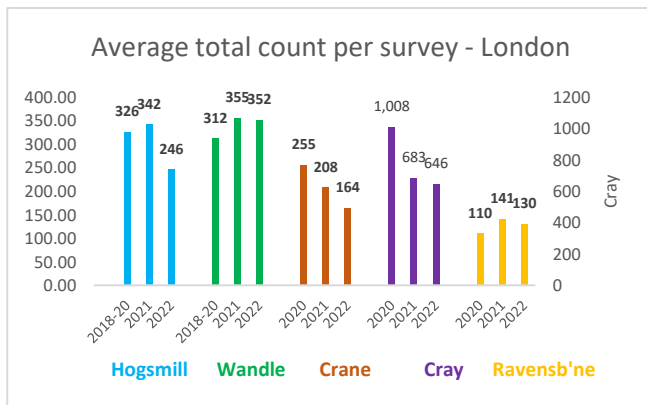
The method used for RMI sampling on the Hogsmill is the same as that used on 100s of other rivers. Site-specific factors affect the results; and sampling on other rivers has mostly been more sporadic over the past 3 years. But with caution, a comparison with other sites – in this case over 40 sites in southern England with fairly regular recent sampling – can hopefully shed light on what happened on the Hogsmill in 2022.

There were 3 stand-out features of the Hogsmill's results in 2022:

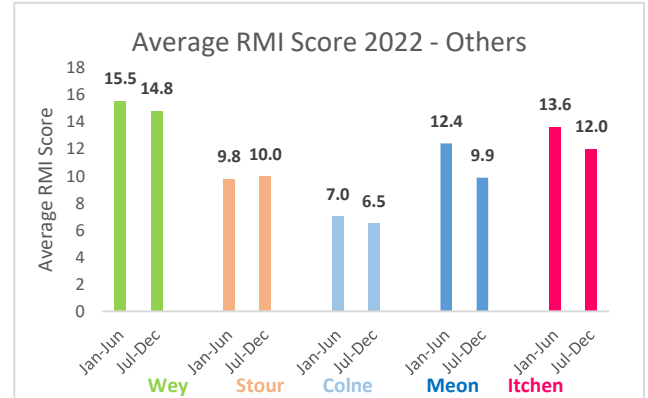
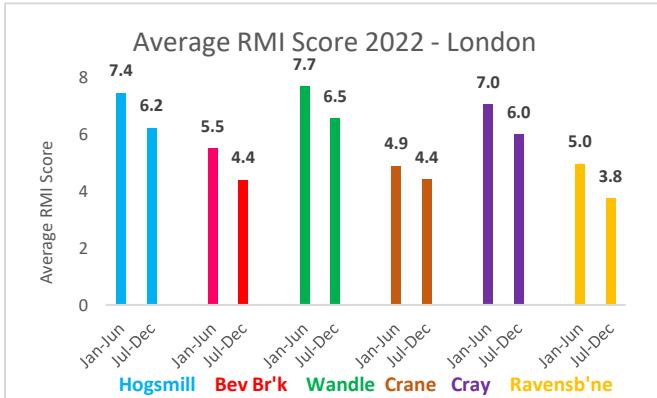
- The **average score** fell for all 6 sites compared to 2021. Experience elsewhere was more variable. There were some rivers, such as the Ravensbourne and Cray, where scores fell at most sites, but along many there were changes in both directions at individual sites with some rivers improving overall. Around half of the sites examined had average scores similar to or above those for 2021;



- There was a large drop in total counts - **abundance** - on the Hogsmill. Lower numbers were also common elsewhere with average total counts down at over two-thirds of sites, though mostly by less than the Hogsmill. Often the falls did not feed into lower scores because of the wide score “bands”. But also while **diversity** – the range of species found – worsened on the Hogsmill in 2022, albeit not by much, it improved at almost half the other sites, something that helped sustain their scores;



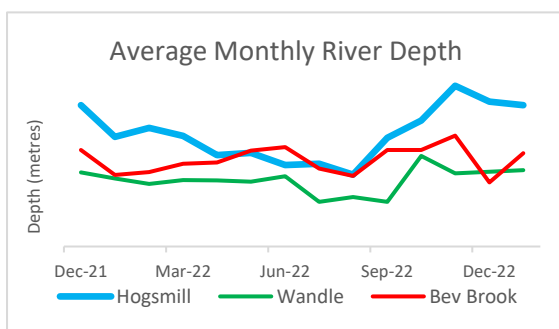
- Scores on the Hogsmill were much lower in the second half of 2022 than in the first as water levels fell following the drought. This pattern was repeated at almost all sites along other rivers. The few exceptions were mostly ones with few samples in 2022, which could have distorted the comparison. Like the Hogsmill, most of these sites did not have similar falls in scores in the second half of earlier years so it does not look as if this was just a seasonal effect.



These results, particularly the widespread falls in scores later in the year, provide further evidence that last summer's extreme weather conditions had a significant impact on water quality both on the Hogsmill and elsewhere. But it looks as if the Hogsmill was affected rather more than many other rivers.

One reason could be that Hogsmill sites are mainly "middling" scorers and there seems to be *some* tendency on other rivers for these to have fared worse than those with "high" or "low" ones. Perhaps the best water quality sites have more resilience to weather shocks while the worst ones only had the most tolerant invertebrates anyway that were also relatively resilient to more pressures.

The particular characteristics of the Hogsmill may also have played a part. As a small river with relatively



little water even at the best of times it may be less able to cope with reduced water levels and flows. The records from the gauging stations also suggest that the water level in the Hogsmill *may* have fallen rather more last summer than other London Rivers, especially its "sisters" the Beverley Brook and Wandle. Perhaps the input of STW effluent further upstream

in both cases could have had an impact. But a proper explanation requires further study.

If you'd like to know more about riverfly monitoring the Fifth National Riverfly Partnership Conference is being held on March 17<sup>th</sup> at the Natural History Museum and online, with talks by experts on new developments in monitoring, pressures on rivers and how citizen scientists can make a difference:

<https://www.eventbrite.co.uk/5th-national-riverfly-partnership-conference-tickets-423385175457>