

The Hogsmill in November 2022

Back to extreme conditions along the Hogsmill this month with exceptional rain so it's been "water-water everywhere" along the river, though it's looked very "manky" so definitely "not a drop to drink". But there have also been glimpses of the sun that have created some spectacular skies above the meadows.



A240 Rock Ramp



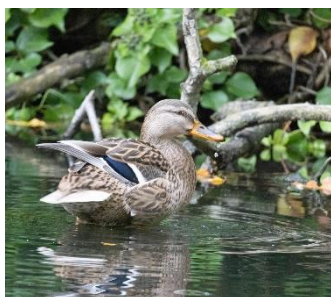
Sheephouse Way



Tolworth Brook



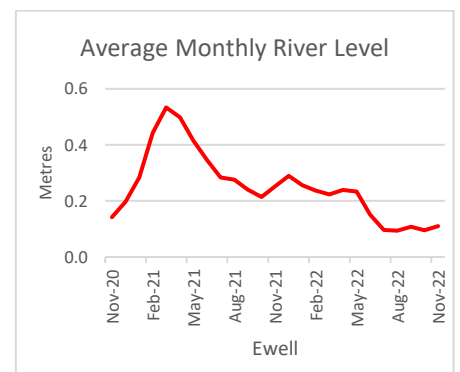
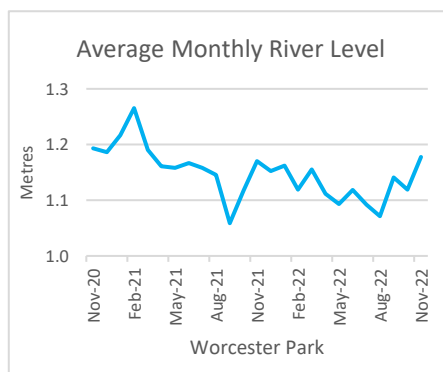
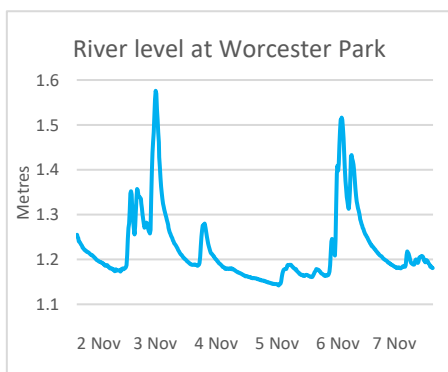
The rain has put more pressure on the Hogsmill's wildlife, much of which has suffered in the extreme conditions this year, but at least it's been "nice weather for ducks" and other water birds!



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. This month the latest results of butterfly monitoring along the Hogsmill are also reviewed.

The Hogsmill in November

There's been twice the usual rainfall in the past month, with heavy downpours leading to large "spikes" in water level: on 4 occasions this has jumped to almost 0.5 metres above normal. These have mostly been short-lived with the level rising and falling back in a few hours. Even so the average level along the mid and downstream sections this month has been the highest for almost 2 years. But upstream the level has stayed low being dependent on the relatively meagre flow from augmentation, which itself may have been reduced as the Horse Pond has again been drained for repairs. At least the decline in the aquifer has started to be reversed though the level is still nearly 9 metres below that at which the Ewell springs usually start to flow.



The extreme conditions have also had damaging effects along the river: eroding the banks; bringing down more trees; and causing large build-ups of rubbish and an early start to winter muddy paths.



Sheephouse Way



Tolworth Court Farm



Elmbridge Meadows



Old Malden

It's been a busy month for doing and planning restoration work along the Hogsmill. In Old Malden, more meadows have been cut while the Moles have "scalped" hedgerows to improve habitat for butterflies and repaired a damaged information board. In New Malden, volunteers have extended the "dead hedges" along the bank to provide more protection for the river habitat and weatherproofed some of the paths along the Tolworth Brook. The SERT Restoration Team has also been surveying the ecology of Elmbridge Meadows as a first stage in planning the major TW-funded project there.



Old Malden Meadows

Rose Walk

Tolworth Brook

Elmbridge Meadows

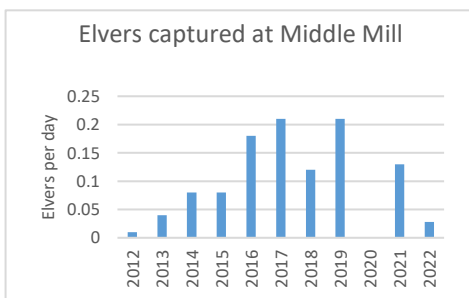
One of the perks for Hogsmill volunteers is an invite to ZSL’s annual Citizen Science Forum which returned to the Zoo this month: a great opportunity to meet others and to learn about monitoring elsewhere.

For the Hogsmill the main interest was in the elvers “caught” in a trap at Middle Mill in Kingston that is activated for 6 months of the year as part of a ZSL project to monitor movement up Thames tributaries. The results for the this year were disappointing with a low overall eel count of which very few were elvers.

We also learnt about the latest idea for introducing more creatures to rewild the Hogsmill corridor, one that should help with “problem” dogs!



(Photo thanks to Sivi)



On pollution, the Ewell Storm Tanks were seen overflowing after one downpour this month and it looked as if the Epsom Tanks might also have spilled recently. As the associated river “spike” was smaller than others this month it seems likely that there were overflows at other times as well. For “ordinary” outfalls, the rain brought “gushes” of rainwater probably mixed with “nasties” from road-run-off, misconnections, etc .



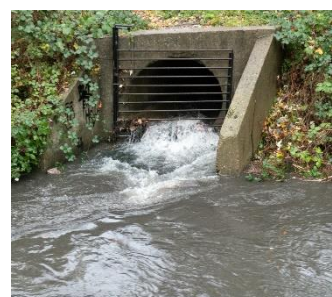
Ewell Storm Tanks



Epsom Storm Tanks



Cox Lane (photo thanks to Robb)



Sheephouse Way

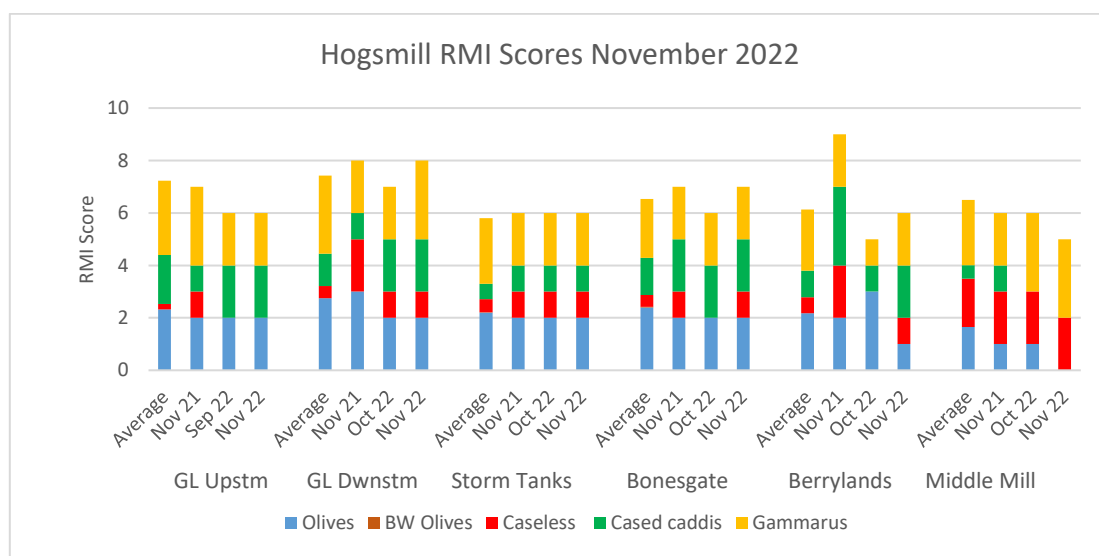
If you see pollution in the river or indications of possible pollution, such as dying fish, please call the EA Hotline: 0800 80 70 60, and ideally take a photo. You can also contact Thames Water on: 0800 316 9800 (option 2); on: www.thameswater.co.uk/help/emergencies/pollution; or on twitter: [@thameswater](https://twitter.com/thameswater).

Hogsmill RMI in November

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

The 6 main-river sites were surveyed between November 17th and 22nd, though in varying river conditions with water levels at the Green Lane Stream sites still very low whereas further downstream they were well above normal after recent rain.

The results were mixed: there were some signs of a recovery from the recent lows at a couple of sites but at others the scores and, in particular, the counts were still mediocre, though with so much turbulence in the water recently the numbers *could* have been distorted by transitory factors, perhaps “displacement downstream” from the water surges or “sampling issues”, that could mask the “real” situation:



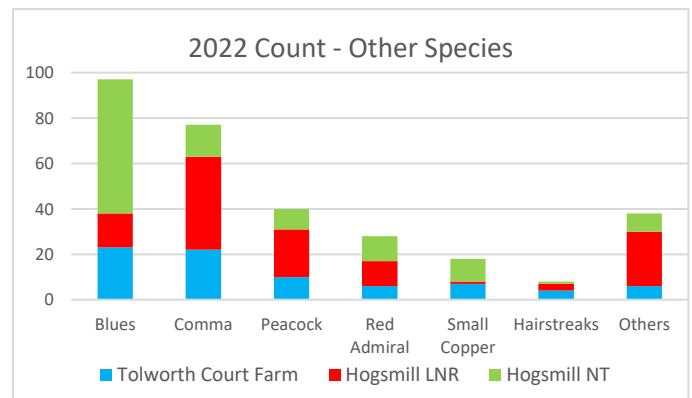
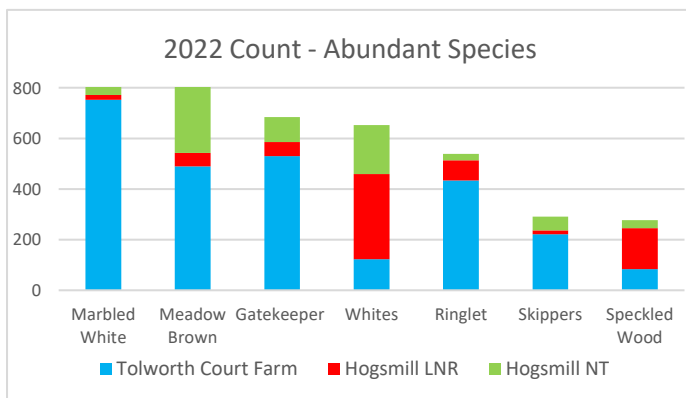
- The sites with marked improvements were downstream at Green Lanes and Bonesgate where the scores and counts returned to the moderately good levels last seen at the beginning of the summer. This was despite differing river conditions at the 2 sites with neither seeming ideal for invertebrates: continuing low level and flow at Green Lanes and well above normal level at Bonesgate but with water that looked and smelled unpleasant;

- At the other extreme, the score and counts at Middle Mill continued the steady and substantial decline seen since August, though the results were similar to those in November last year so the seasonal pattern found here in recent years seems to be repeating;
- The scores at the other sites – upstream at Green Lanes, Ewell Storm Tanks and Berrylands – were all “6” with counts mostly broadly in line with the below-average numbers found since the early summer. But at Green Lanes counting was again hampered by the large amounts of weed choking the river so it could well be that the numbers recorded there are an underestimate;
- Amongst the species, olive and gammarus numbers continued to be very low: the totals across all 6 sites were less than half the long-term average. The scores were again bolstered by cased caddis with more than 10 recorded at 4 sites, something that was very unusual up until the last couple of years, although this may be partly because we’ve become better at identifying the “tiddlers”.

Butterflies along the Hogsmill

Butterflies are a good indicator of the health of the environment as they respond relatively rapidly to habitat and climate changes. The Hogsmill corridor contains a wide range of habitats – grass and wildflower meadows, woodland, hedgerows, bramble and nettle banks – that can support a variety of species. These are monitored as part of the Butterfly Monitoring Scheme (BMS), a national scheme involving 26 weekly counts on fixed walks (“transects”). Currently 3 transects each 1-2km long are surveyed: Tolworth Court Farm; the Hogsmill Local Nature Reserve (LNR) in Ewell; and the Hogsmill Nature Trail in Old Malden.

In 2022, 28 species were found in the 3 transects and over 4000 sightings were recorded, almost two-thirds of them at Tolworth Court Farm. The largest count this year was of marbled whites, quite a rare butterfly nationally, but one that thrives in the meadows beside the Hogsmill, especially Tolworth Court Farm. This was followed by common species - meadow browns, gatekeepers and whites - but next came ringlets, another fairly rare species that enjoys the hedgerows and scrub alongside the Hogsmill.





Marbled white



Meadow brown



Gatekeeper



Ringlet

Of the “smaller number” species, the highest count was of blues while relatively few of the iconic hairstreaks were spotted, though as transect walks are not a good way of monitoring them this may not be significant. More species than normal were spotted this year, with sightings of migrant painted ladies and clouded yellows, as well as of silver-washed fritillary, small blue and purple hairstreaks, all quite rare finds. Though not on the transect walks, white admirals and a purple emperor were also sighted in the Hogsmill Catchment.



Common blue



Painted lady

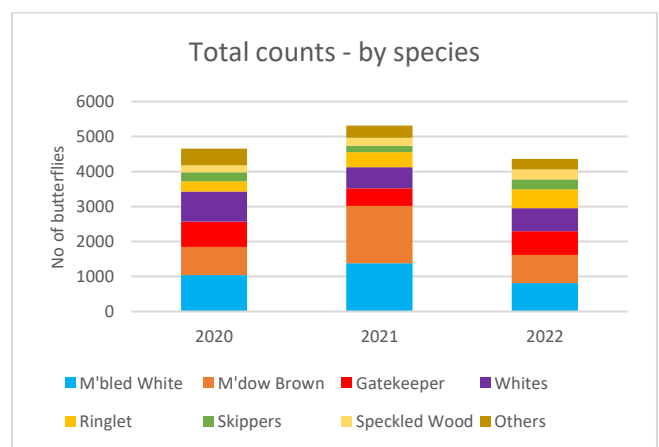
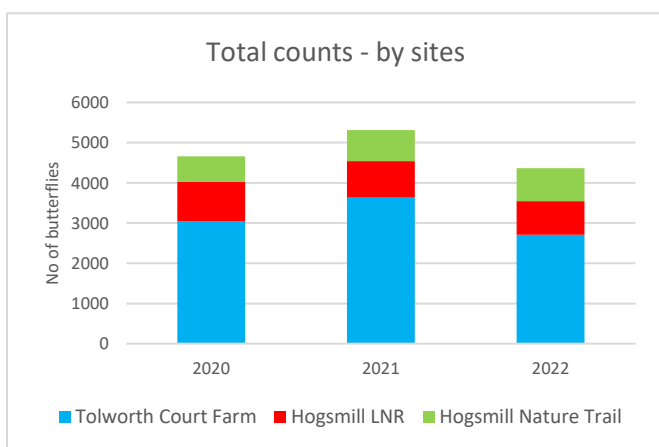


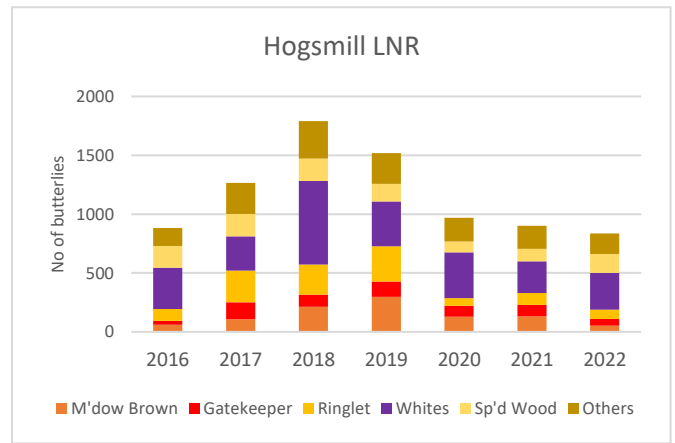
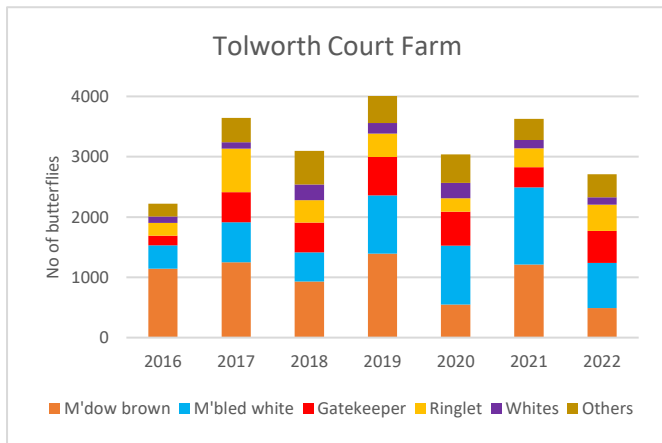
White admiral



Silver-washed fritillary

But the total number of butterflies counted in the 3 transects was well down on 2021 - by about 20 per cent overall – and slightly down on 2020. The fall this year was largely the result of a drop by a quarter in numbers at Tolworth Court Farm to the lowest level since 2016. There was also a small drop at the Nature Reserve again to the lowest total since 2016, though the count along the Nature Trail was up slightly.





Amongst the species, the number of meadow browns and marbled whites dropped by almost a half in 2022, while counts of some others, particularly gatekeeper, speckled wood and common blue rose. The low numbers overall, and especially for meadow species, along the Hogsmill are similar to the results found along other transects in the area and nationally.

The complex and different life cycles and styles of the individual species mean that the drivers of these changes are complex. But the extremes in the weather over the past year or seem bound to have had a large impact. Last year's wet summer created difficult conditions for breeding while this year's hot and dry one made finding foodstuff hard. This year's summer "peak" of the big-number species was both lower and shorter than in 2021, and counts generally fell off very sharply from early August. A particular concern is the impact of the drought on species overwintering as larvae, something that will only become clear in 2023.

More specifically for the Hogsmill, an important factor is the way the habitat is managed: the hedgerows and especially the "butterfly-rich" meadows in Tolworth Court Farm and the Hogsmill NT. Recently mowing has generally been done later in the year and sometimes not at all. There are downsides to this approach, but possibly also some upsides: despite the drop this year, counts of marbled white and ringlets are now much higher than a few years ago. Also this year the "uncut" Nature Trail meadows produced an unusually good crop of bird's foot trefoil, a favourite of the common blue whose numbers were well up.

If you would like to be involved in transect monitoring, please contact Bill Downey, the Transect Co-ordinator for SW London and Surrey: billdowney@sky.com

