

Hoverfly Newsletter

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The early weeks of the lockdown featured glorious weather, especially in April, but I recorded very few hoverflies on my daily walks. The situation in my garden was somewhat better, with *Chrysotoxum cautum* being active almost daily from 2 May until 1 June (following the similar prolonged presence of this species there in 2018 and 2019, as described in **Hoverfly Newsletter No. 66**)

Copy for **Hoverfly Newsletter No. 69** (which is expected to be issued with the Spring 2021 Dipterists Forum Bulletin) should be sent to me: David Iliff, **Green Willows, Station Road, Woodmancote, Cheltenham, Glos, GL52 9HN**, (telephone 01242 674398), email: davidiliff@talk21.com, to reach me by 20 November 2020.

The hoverfly illustrated at the top right of this page is a male *Lejops vittatus*

Hoverfly Recording Scheme Update – Autumn 2020

Stuart Ball, Roger Morris, Joan Childs, Geoff Wilkinson & Ellie Rotheray

We have had a very busy winter and spring! The numbers of records uploaded into RECORDER have been such that when Stuart tried to import some 70,000 records from iRecord the system fell over. In other words, there were too many records for Recorder 2002 to handle and a new platform was needed! So, with some trepidation Stuart embarked on what turned out to be an epic match trying to upload the dataset into the Recorder 6 format! After a long struggle he succeeded but it took plenty of ingenuity. He has written up the procedure in case others find it necessary to do the same.

The overall dataset now stands at a little over 1.3 million records, although there is some duplication (especially as some iRecord users seem to be uploading data that we already have). Since that battle, a further 20k records have been verified on iRecord and we also have a couple of dozen more spreadsheets to import. This growth in the dataset means that as far as we can tell, the HRS dataset is the third largest for British invertebrates after Lepidoptera and Odonata; an amazing transformation for a group

of flies that were once considered too difficult for all but serious specialists to tackle.

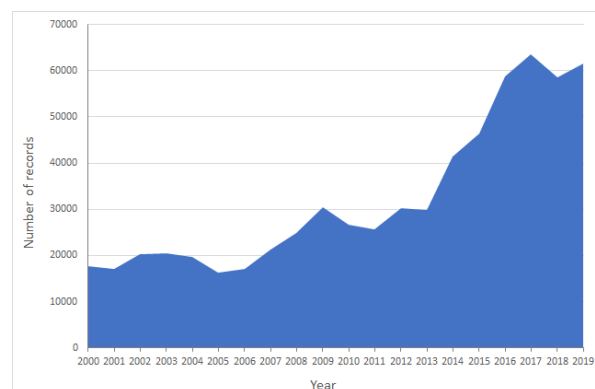


Figure 1. The numbers of records on the HRS database. These totals are for all records and have not been filtered to exclude duplication.

When the Coronavirus lockdown was announced in March 2020 it might have been expected to have had an adverse effect on recording this spring. We need not have worried; if anything, recording has benefitted both in terms of numbers of recorders and the numbers of records received. Furthermore, the numbers of species recorded held up well, although some specialists such as *Portevinia maculata* would not have been reported so frequently because it was not possible to visit many suitable sites.

There can be little doubt that lockdown has stimulated increased interest in observing and recording hoverflies. The numbers joining the Facebook group have been phenomenal, with 429 new members accepted over the period 23 March to 17 June (but 69 members have also resigned). Equally, the number of full records generated directly onto the running spreadsheet greatly exceeds 2019, with 11,788 records between 23 March and 14 June 2020 compared with 8,729 in 2019. This difference is illustrated in Figure 2 which also shows how numbers of records fluctuate greatly. These fluctuations seem largely to be weather-related but there is a slight correlation with weekends too.

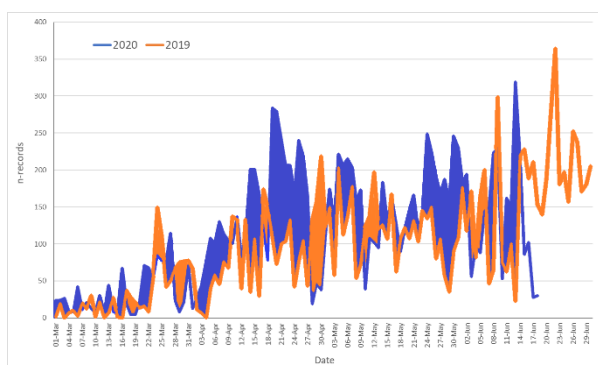


Figure 2. Numbers of records extracted directly from the UK Hoverflies Facebook group in 2020 compared with 2019. Areas in blue are those where the 2019 levels have been exceeded.

Making sense of the effects of lockdown is not straightforward. There are differences between 2020 and preceding years but as the information to date largely comes from the Facebook group it is difficult to be sure whether they simply reflect the increased interest in recording. Moreover, it is possible that the exceptionally sunny spring has also been an important factor in the numbers of records submitted.

To illustrate this point, we have compared the contribution of *Eristalis pertinax* to the Facebook dataset this spring (to 14 June). It seems that this species was observed far more frequently in 2020 and many observers have commented that they thought it was commoner. Some caution is needed, however, because this analysis works on the proportion of records and if the numbers of species recorded have been affected by the greater emphasis on recording from gardens, this variation may simply be a recording anomaly.

The biggest surprise, however, has been the numbers of species reported by photographic recorders in 2020. Bearing in mind that most people's gardens are far less productive than a wildlife site, the numbers of species recorded have remained high and at least comparable with 2019. Quite how the data will look when all spreadsheets have been uploaded at the end of the year remains to be seen.

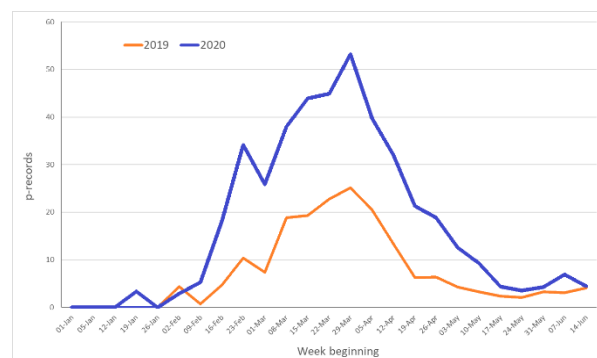


Figure 3. The contribution (p-records) of *Eristalis pertinax* to the Facebook dataset in 2020 (blue) compared with 2019 (orange).

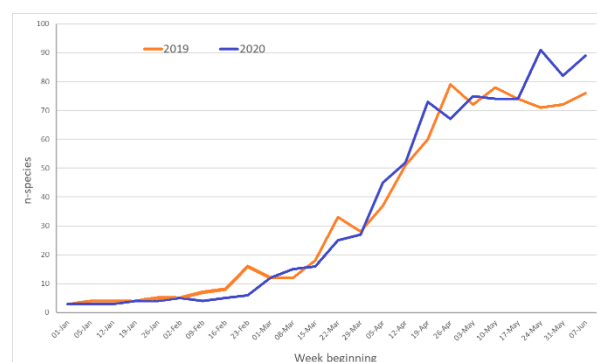


Figure 4. Numbers of species reported by Facebook group members in 2020 (blue) compared with 2019 (orange).

As usual, the Facebook group has provided new and interesting insights into hoverfly distribution and ecology. Highlights include a record of a *Helophilus* photographed by Nick Addey on 27 September 2019 in the beak of a Melodious Warbler on Out Skerries HU679717 and a report (& photographs) by Pete Kinsella of a male *Callicera rufa* at Formby SD279057 on 20 May 2020 associated with Corsican Pine. These individual records and the overall growth in recording demonstrate the power of the internet as a way of increasing interest in hoverflies and other invertebrates.

It looks as though *Callicera rufa* occurs in many more southern locations and will be found if an effort is made to locate it. For example, Roger Morris investigated Leith Hill in Surrey in May and after about 45 minutes located two males about 10 feet up a sunlit Scots Pine trunk.

During early June, there were signs that a significant migration was underway; *Eupeodes corollae* was remarkably abundant together with substantial numbers of *Scaeva pyrastris*. This suspicion was confirmed by a report from Craig Hannah who works on an oil rig 140 miles off Aberdeen (Block 16/26 - 58°02'51.8"N 1°08'11.6"E). Craig posted a sequence of photographs of the rig plastered with hoverflies, most of which seemed to be *E. corollae*, on the night of 13-

14 June. Unfortunately, we don't know their origins but perhaps this can be deduced from prevailing winds and radar data. Karl Wotton at Exeter has been alerted and Craig is collecting samples for chemical analysis.



Figure 5 Hoverflies resting on Craig Hannah's oil rig off Aberdeen

Since Craig's observations we have received reports of large numbers of some migratory species in eastern and northern England and especially in NE Scotland, the Orkneys and Shetland. One report on the *Nature in Shetland* Facebook group was of hundreds of dead hoverflies on the strandline at Gulberwick beach on 28 June. The accompanying photograph showed a mixture of *Eupeodes corollae*, *Episyrphus balteatus*, *Scaeva pyrastris* and several *Syrphus*. Perhaps there is a project for readers based in coastal locations: regular beach walks logging the numbers (and species composition) of dead hoverflies on the strandline. In so-doing, perhaps it would be possible to develop a clearer picture of the frequency with which resident hoverfly numbers are boosted by migrants.

Furry Pine Hoverfly discoveries in the North Midlands

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Larva of Furry Pine Hoverfly found at Longshaw (photo Rob Foster)

The Furry Pine Hoverfly, *Callicera rufa*, was until recently thought to be confined to remote pine forests in Scotland¹. Amazingly though, it has been found to be present on the Longshaw Estate (National Trust) in the Derbyshire Peak District. This was achieved by an initiative involving creating what are called stump lagoons, which are made using a chain-saw to cut hollows in the tops of pine stumps^{1,2}. They fill naturally with rainwater to simulate the rot-holes in which the hoverfly lays its eggs and raises its larvae. The hoverfly looks very much like a honey bee and spends most of its time in the tops of trees, passing completely unnoticed. So the best way to detect its presence is by looking for its larvae in the lagoons. These are very distinctive fat maggots since they have what look like heavy eyebrows, though these are actually groups of small horny hooks that help them cling onto the wood whilst they feed on bacteria in the water.

Using the stump lagoon technique, the hoverfly has been found, amazingly and totally unsuspectedly, to be present in a number of parts the UK. Alerted that it had been found by Ken Gartside at RSPB Dovestone in SW Yorks., some 20 miles away, NT Conservation Volunteers John Leach and Rob Foster readily persuaded Ranger Mark Bull, Longshaw's wildlife monitoring volunteer manager, to cut lagoons into about 20 pine stumps for them. That was only last spring (2019). It's amazing to have found the larva shown in the photo in a space of a few months. Even better, the larva immediately pupated and the hoverfly emerged at the end of August, just a few weeks later. It's not the first record in the DaNES area; the hoverfly was recorded in Nottinghamshire by John Szczur in Clumber Park in May 2009³. Nevertheless, the record is almost certainly the first for *Callicera rufa* in Derbyshire: one more rare hoverfly recorded on the Longshaw Estate: one of a growing list !



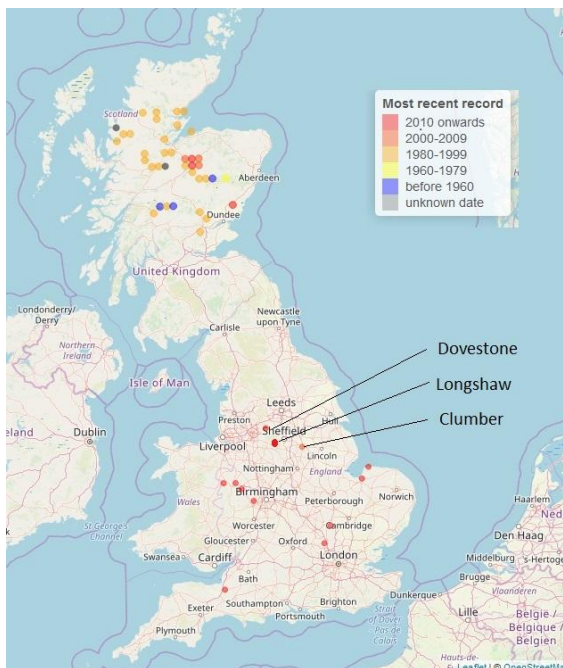
Furry Pine Hoverfly hatched from pupa of larva found at Longshaw (photo John Leach)



Mark Bull cutting pine stump lagoons (Photo Rob Foster)



Pine stump lagoon filled with pine off-cuts and sawdust, flooded with water (Photo Rob Foster)



Map of the distribution of finds of *Callicera rufa*. Note the increase in recent finds (marked in red), particularly in England, following the adoption of the Stump Lagoon technique (Map provided by Roger Morris of the Hoverfly Recording Scheme)



It's Out There – Go Find It !!! John Leach (left) and Rob Foster (right) meet up with Ken Gartside (centre) at his presentation on Hoverflies given to the Saddleworth Naturalists covering his technique for finding *Callicera rufa* at Dovestone², which was used by them at Longshaw. (Photo John Leach)

References

¹**Malloch Society.** *Callicera rufa* – A Scottish icon. <http://www.mallochsociety.org.uk/callicera-artificial/>

²**Gartside, K., 2017** The hoverfly *Callicera rufa*: The first Yorkshire record (including methodology for artificial rot-holes). *The Naturalist*, Issue Dec. 2017, **Vol. 142: No. 1096, pp 211-213**

³**David Budworth**, Derbyshire and Nottinghamshire Entomological Society. Personal communication

Brachypalpoides lentus pair

Carol and John Taylor saw this mating pair of *Brachypalpoides lentus* in Worcestershire in May.



Pair of *Brachypalpoides lentus* at Trench Wood, Worcestershire SO9259 (photo: John Taylor)