**Hoverfly Newsletter**
**Number 66**
**Autumn 2019**
**ISSN 1358-5029**

By the time that this newsletter is published the 10th International Syrphidae Symposium will have taken place; it is scheduled for the period 8th to 14th September in Lesvos. An announcement of this event was included in the last newsletter. Details can be found at: https://iucn-hsg.pmf.uns.ac.rs/iss10/.

There was a substantial UK presence at the first three hoverfly symposia (which were held in alternate years beginning in 2001), and, not surprisingly, also at the 6th Symposium in Glasgow in 2011, and feedback from these was sometimes included in hoverfly newsletters. If any reader who will have attended this year's symposium would like to offer an article about it, it would be most welcome.

Two splendid new additions to the growing treasury of books on hoverflies have recently been published: from the Netherlands comes **Veldgids Zweefvliegen (Field Guide to Hoverflies of the Netherlands and Belgium)** by Sander Bot and Frank van de Meutter, published in 2018 by KNVV, and from Canada the **Field Guide to the Flower Flies of Northeastern North America** by Jeffrey H Skevington and Michelle M Locke, published in paperback in 2019 by Princeton Field Guides. Both feature colour photographs (mainly of museum specimens) of every species covered.

Copy for **Hoverfly Newsletter No. 67** (which is expected to be issued with the Spring 2020 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 2019.

The hoverflies illustrated at the top right of this page are a mating pair of *Volucella inflata*.

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## Ted Levy – a stalwart of more than 45 years

It was with great sadness that I recently heard that Ted Levy, one of the longest-standing contributors to the HRS, had died in May 2018. Ted's contribution to hoverfly recording was considerable: at least 37,790 records (often with his son David). According to the database, Ted's first contributions date back to 1971 which seems to correspond with the time he first became interested. In a letter to Peter Chandler, dated 10 January 2003, Ted described how he started collecting hoverflies to help to encourage Ron Payne who had recently joined the same Natural History Society and was working on an Essex list. At the time Ted was a birder and did not have access to collections or keys: Ron provided the identifications.

Ted and his family subsequently moved to Dorset where another chance event took Ted's interest to a new level. Bill Dean, who was a stalwart of the Sorby Natural History Society's hoverfly recording, had migrated to Dorset where it turned out he was Ted's postman. Bill noticed the packages from the Natural History Museum and started to mentor Ted and Dave. There followed a very productive partnership of research and

field work between Ted, Dave and Bill that led to an atlas of Dorset hoverflies. Ted and Dave went on to do the same for Somerset, but Bill departed for Canada and dropped out of hoverfly recording.

Producing a county atlas is no mean feat; producing two is remarkable. The fieldwork alone is a massive undertaking but raising the funds for publication is even more creditable. Ted and Dave Levy achieved a great deal.

In recent years, Ted was afflicted by Parkinson's Disease, a cruel twist that made it difficult for him to pursue his natural history passions. He alluded to greater frailty in his letter of 2003 at the age of 72, but clearly kept going for a further 15 years; during most of which he was still an extremely active recorder.

Ted and Dave's collection of around 8,000 specimens of UK and European hoverflies has been donated to Oxford Museum.

Roger Morris

## Abigail Rhodes – a rising star

Just occasionally someone bursts on the scene in spectacular ways. When such livewires die early, the community is robbed of an untested leader; Abby Rhodes had just that potential.

I first encountered Abby on the UK Hoverflies Facebook page when she started posting amazing finds from her garden in Dalcharn, near the Kyle of Tongue, including remarkable numbers of *Xanthandrus comtus*. Over the following couple of years she became increasingly interested in Diptera, and when our four-day course at Preston Montford was organised she was one of the first to enrol. That course was memorable because we had a fantastic group, several of whom are now very active Dipterists. Abby definitely led the way and was obviously capable. When she found that our hoverfly course was running immediately afterwards, she promptly booked a place to stay on: goodness knows how she broke the news to husband Gary!

Abby rapidly graduated from hoverflies to many other Diptera families and readily travelled south when she knew there was a gathering of Dipterists. We last saw her at Strathpeffer in August 2018. Despite having been diagnosed with terminal cancer, and having refused a second course of chemotherapy, she still made the journey south to join us. By that time the cancer had started to take its toll, but she was brave and resolute.

Diptera were not, however, Abby's first love; she was passionate about monitoring breeding eagles in Caithness & Sutherland. How many Dipterists abseil down cliffs to ring eagle chicks? She was seemingly fearless. We saw one result of this passion in a paper published in Dipterists Digest [Emergence of *Lasiomma picipes* (Meigen) (Diptera: Anthomyiidae) from Golden Eagle pellets. *Dipterists Digest* **25**(2): 139-141]. That paper emerged shortly before her death on 11 March 2019 and I hope she got to see it in print. Under different circumstances, I think we could have looked forward to a substantial contribution of records and observations spanning many aspects of Dipterology, including hoverflies. She will be greatly missed, especially as there are so few active Dipterists that far north.

Roger Morris

## Hoverfly Recording Scheme Update – summer 2019

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

By the time this report reaches readers, the summer will be almost over. What will have happened and will hoverfly numbers be any better than they were in early June when this update was written?

This last winter was warm, with long periods of sunshine and lots of hoverfly activity. The omens looked good in March and early April: it seemed that there were plenty of hoverflies about! Spring came exceptionally early, and this may have caused problems later on. For example, there were two records of *Epistrophe eligans* in February; early March dates were a surprise when they first happened, but February is unnerving! The second and third weeks of April seem to have been the peak for this species in south-east England, which is probably ten days earlier than normal.

Several species showed strongly this spring. *Melangyna quadrimaculata* is always dependent upon the weather, but was seen in various places this year. There were also lots of records of *Meligramma euchromum* and *M. trianguliferum*. Conversely, a general impression emerged that some normally abundant species were far less obvious. *Eristalis pertinax*, in particular, was decidedly scarce in some places.

One of the big changes to have happened in the past five years is recorders looking for charismatic species. As hoverflies have gained popularity and wildlife tourism has grown, such a shift was inevitable. This approach is helpful because it has been very difficult to know how some of these species were faring (most traditional Dipterists tend not to visit known localities but prefer to find new ones).

*Doros profuges* has been an obvious target and was re-found this year both at Yealand Allotment and Martin Down from which there are ongoing sequences of records. A similar situation obtains for *Caliprobola speciosa*: until recently, we have received almost no records of this species despite its occurrence in The New Forest, which must be visited by considerable numbers of potential recorders. We simply don't have the data to say what is going on there, despite anecdotal reports that it is getting rarer. A developing pool of regular reports would be a huge boost to understanding its situation in The Forest (even less is known of its status at Windsor).

There has also been a very welcome surge in interest in hoverfly larvae. Several very active new recorders have started to generate greater activity. Facebook posts of how to find larvae (and eggs) of *Parasyrphus nigritarsis* have stimulated a lot of interest (even RM regularly turns over dock leaves in the hope of success). That higher profile has led to some remarkable new finds (of *P. nigritarsis*), including from southern England. The discovery of the large, extraordinary looking, black larva of *Eriozona syrphoides* feeding in a colony of Giant Willow aphids along with *Didea fasciata*, provides a further point of excitement. How many people actually find, let alone investigate these aphid colonies? Hopefully others will be stimulated to look more carefully at aphids on willow.

With so many enthusiasts creating artificial habitat for semi-aquatic hoverfly species, so called Hoverfly Lagoons, five species have now been recorded from this habitat, including *Syritta pipiens* which turned up in 2018. Amazingly, over 300 larvae can develop in just one of these simple yet effective Lagoon habitats. This is a project that will fascinate all ages and is well-worth the effort – give it a try!

By the time this Newsletter reaches readers, autumn will be approaching. Leaf-fall is a great time to look for larvae too. What better way to while away a wet autumn evening than to work one's way through a bag or two of fallen leaves. Damper ones seem to be better for *Melanostoma*, but it is worth checking out a wider range of leaf piles from different tree species. Beech may yield *Melangyna cincta*, whilst the much-maligned

sycamore can be a gold-mine for a wide range of species; from *Syrphus* to *Parasyrphus punctulatus* and *Epistrophe grossulariae*.

We hope that interest in larvae will continue to grow: there is so much more to be learned from a better understanding of juvenile stages, especially as these are most likely to be affected by extreme weather.

In the last Newsletter (No 65), the issue of detecting change was discussed in two notes by RM. This spring we have watched the incoming records with great interest. What has happened to potential indicator species such as *Rhingia campestris*? When this update was written, there were insufficient data to make any meaningful statement about the effects of 2018 heatwave. Most of what can be said is anecdotal, and very localised. For example, RM has regularly commented on an almost complete lack of *Cheilosia* on his 'patch' in Mitcham. Normally, one might expect to see reasonable numbers of *Cheilosia* at *Anthriscus* flowers; but this has been far from the case in 2019. Is this a heatwave effect? Up until now, it might have been assumed that larvae feeding within stems and roots might not have been significantly affected by the heatwave, but is this really the case? Unfortunately, so few people make comprehensive records of *Cheilosia* that it is unlikely that any realistic analysis will be possible.

**iRecord**

Increasing numbers of records arrive via *iRecord* but have as yet to be absorbed onto the HRS database. We have a few problems to sort out; not least that one Local Records Centre placed its entire dataset on *iRecord* and we are faced with a huge task of reconciling what we have/have not got on the dataset already. This job is unlikely to be dealt with before next winter. We also get a small number of people who place occasional records on *iRecord* that we also think have been extracted from the Facebook group. There are some who submit to local recorders but also place on iRecord; those data will reach us twice. These reconciliations may be tricky!

There have been enquiries about local recorders taking on verification. In principle, we would be keen to develop such a system, but we do need to be sure that the verifiers have competency to deal with often tricky records. So, if you are minded to get involved, a starting point should be to get involved with the UK Hoverflies Facebook group and contribute to identification of posts. In that way, we can start to develop a feel for your approach and competency (photo ID is not always straightforward). A detailed analysis of *iRecord* issues is needed – a job for RM when time permits, as this may help to illustrate the pitfalls facing the potential verifier.

**A few statistics**

At the time of writing, the dataset comprised 1,114,236 records from 1950 onwards. The numbers of records received for 2018 are about the same as for 2017, which is probably a reflection of the difficult recording conditions of 2018. There are doubtless more datasets to be incorporated, so the true situation for 2018 will probably only be clear in a couple of years' time. Nevertheless, it does look as though recorder effort is moving towards a new asymptote (figure 1).

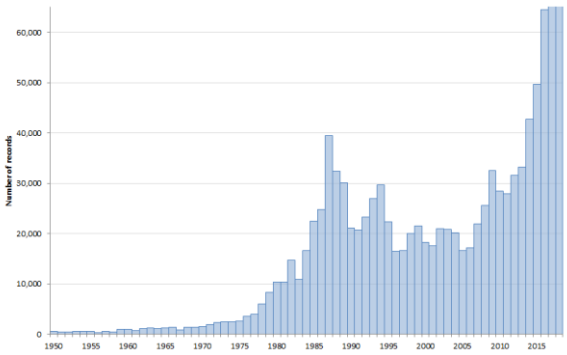


**Figure 1**. Numbers of records in years 1950 to 2018

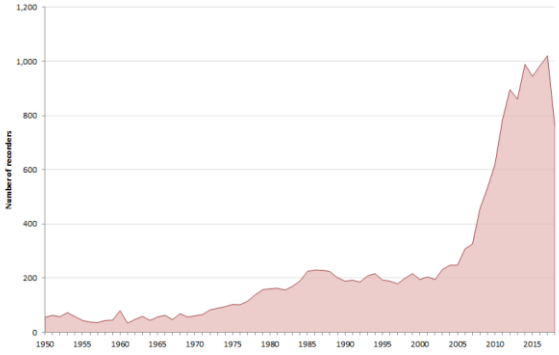


**Figure 2**. Numbers of recorders in years 1950 to 2018

The UK Hoverflies Facebook group continues to attract new members, but the pace of growth seems to have slowed. New active members do appear, but we have also seen several formerly active members move on. Again, it looks as though we might be approaching a new asymptote; indeed, Figure 2 suggests that the overall number of contributors to the scheme has dropped in the past 3 years. The main reason for this perceived drop is that RM no longer scans Flickr and other media for occasional records.

Coverage in 2018 is shown in Figures 3, 4 and 5. As might be expected, it comprises hot spots where exceptionally active recorders are present and more diffuse records that represent lower levels of activity of small numbers of visits.

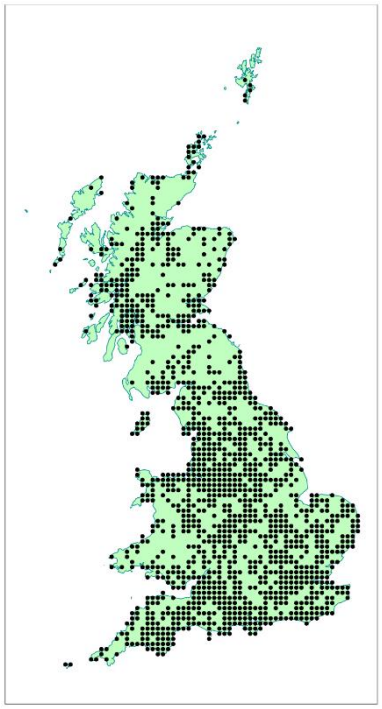

**Figure 3**. Coverage in 2018.

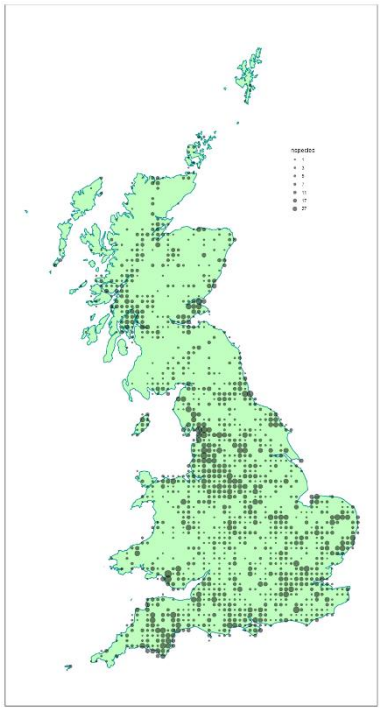

**Figure 4**. Numbers of species 2018.

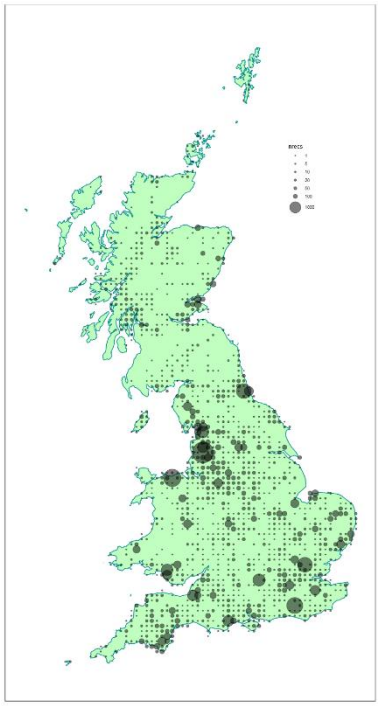

**Figure 5**. Numbers of records in 2018.

## Further cases of avian predation

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In the last Newsletter (No 65: 15-16) photographs by Rob Salem of *Eristalis intricaria* fallen prey to a Stonechat showed that at least some birds are not fooled by bumblebee mimics. It seems that honeybee mimics may fare no better, as these photographs by Mike Mullis show. Mike captured this Grey Wagtail at Abbots Wood (East Sussex) on 20 April 2019. The unfortunate hoverfly is an *Eristalis* and looks as though it is probably *E. pertinax*.

For the original post see:
https://www.facebook.com/groups/609272232450940/permalink/2368414509870028/

Mike returned to Abbots Wood on 24 April and made a further amazing record – this grey wagtail obviously finds hoverflies a suitable food for its brood. In the third photograph we see it carrying a *Syrphus* and also what appears to be a *Helophilus*.

Taken in combination, these three records start to build a picture of avian predation of hoverflies that has hitherto been undocumented. Mike's record is also another example of the superb wildlife photography by members of the UK Hoverflies Facebook group, which is adding greatly to the data on hoverfly occurrence and is also filling in valuable insights into other aspects of hoverfly ecology. Hopefully more examples will emerge in due course.

There is also a post by Bruce Kerr on Twitter from 24/06/2016 of a Spotted Flycatcher with *Sericomyia silentis* at Gladhouse Reservoir (Midlothian); so, it seems, mimicking a wasp confers no greater advantage either!

The big question, of course, is whether these are rare examples where mimicry failed to confuse a bird; or, perhaps, birds are rarely fooled because they are equally likely to take bees, wasps or hoverflies?

## Does *Rhingia borealis* occur in the UK?

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Last summer (2018) there were two reports of extremely dark *Rhingia* supported by photographs. One, by Rebecca Nason, from Shetland, involved a considerable number of very dark specimens that seemed to represent a mass emergence or a migration. Another, by Paul Johnston, from Inverness, showed a male specimen with a completely black scutellum. Both reports coincided with a major mass occurrence of *Episyrphus balteatus* and *Eupeodes corollae*. I was therefore alert to the possibility of *Rhingia borealis*, which occurs in Scandinavia (Bartsch *et al*., 2009) and has been reported from The Netherlands and Belgium (van Steenis, 1998; also see map in Bot & de Meutter, 2019).

It is unclear whether records from Belgium and The Netherlands represent resident populations or vagrants, but clearly there is a possibility that *R. borealis* could occur in the UK. The most likely region for it to turn up seems to be Scotland, including Orkney and Shetland, but it may occur elsewhere. It therefore makes sense to check all *Rhingia* with an unusually dark scutellum and pale abdomen, and especially where the scutellum is black (bearing in mind that they are often very dark in Scotland).

*Rhingia borealis* can be separated from *R. campestris* on the basis of the length of the facial prominence (less than 2x the length of the antennae, as in *R. rostrata*), and the presence of black hairs on at least part of the orange parts of tergite 4 (see Bartsch, *et al*., 2009). The length of the facial prominence may be difficult to assess, so it is also important to check the hair colour on tergite 4. It is separated from *R. rostrata* on the basis of pubescence on the arista (bare in *R. rostrata*). In male *R. borealis* the hind femur is also almost completely black (about half black basally in *R. rostrata*).

**References**

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## *Volucella inanis* larvae on my stairs' carpet !!!

Rob Foster

I spotted this large strange looking grub on the stairs' carpet. I realised it was a hoverfly larva and closer inspection showed it to be that of *Volucella inanis* – a queen wasp mimic and a known parasite of social wasps. The larva, seeking somewhere to pupate after consuming its fill of wasp larvae, must have found a route from a wasp nest in the roof space into my house.

Photo Rob Foster

Wasp nest drilled into the roof insulation foam panels Photo Rob Foster

This was all last autumn. I was prepared to tolerate the wasps since the nest was clearly being abandoned as the queens left. And although some hundreds of wasps entered my bedroom, I only received one sting - when one crawled inside one of my socks before I put it on. Even so, it was spring before I felt it safe enough to stick my head into the roof space to discover the nest. It was inserted into the insulation of the roof. Only the lower lobes are visible in the photograph. It must have been about 2 feet across and 4 inches thick. The wasps were Common Wasps (*Vespula vulgaris*) judging from the anchor-shaped mark on their faces.

Diapaused larvae Pupae Photos Rob Foster

Eventually three hoverfly larvae made their way out this way. I collected them with the idea of breeding them out. For the whole winter they were in diapause – a semi-hibernatory state prior to pupation. It was not until early May that they pupated. This was awkward, since I was going to be on holiday in late May when I expected the adult hoverfly to emerge. Fortunately my friend and expert photographer John Leach offered to act as hoverfly-sitter whilst I was away. He kept an eye on the pupae and photographed and released the adults as they hatched. I arrived back just in time to see the last one to emerge.

The final emerged adult (a female) prior to release Photo John Leach

*Volucella inanis*, a queen wasp mimic, is primarily a hoverfly of Southern England, but with global warming it has penetrated further and further north. Last year, its progress was given a boost by the southern winds of the exceptionally hot summer and I saw one for the first time in the Upper Derwent Valley. So it was surprising to find its larvae already occupying my house. I cleared away the old wasp nest, but I notice already a stream of wasps going into a gap between the tiles of my roof. I can probably expect to find more hoverfly larvae on my carpet this autumn.

## *Chrysotoxum cautum*: a return visit

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We have become accustomed in recent times to the disappointment and frustration of finding very few hoverflies, due probably to multiple causes, but from time to time there may be pleasant surprises, for example when an apparently declining species turns up in numbers, especially if it is a charismatic one. This happened in my garden during a period of over a month in 2018 and this was repeated in the almost identical calendar period of this year.

*Chrysotoxum cautum* was described in the first edition of **British Hoverflies** as probably the commonest of those members of its genus that are obvious social wasp mimics. The species was recorded in Gloucestershire regularly over the years until 2008 after which the number of records dwindled dramatically (in spite of the presence of a healthy number of active hoverfly recorders in the county). There was just one record in 2008 and one in 2009 and then no more until 2013. Clearly this was not just a local phenomenon as the **Atlas of the Hoverflies of Great Britain**, published in 2011, referred to a significant decline in the species. After the four year gap in Gloucestershire records there was a gradual resurgence, numbers returning to former levels from 2015.

On 14th May 2018 I saw a male *C. cautum* in my garden. This was the beginning of a period of over a month, ending on 18th June, during which I found the species in the garden on nine separate days. On the 18th May a male and a female were present, though not seen together. This year surprisingly there was a virtual repetition of this activity: *C. cautum* was seen in the garden on a total of twelve days between 13th May and 22nd June, in a period when very few other hoverflies were observed. In a remarkable parallel to the previous year, a male and a female were both present on 17th May (again seen separately). All the other sightings in the 2019 period were of females. On both 20th and 22nd May the species was seen several times – in fact each time that I went into the garden on those two days a *Chrysotoxum cautum* was visible. Although I never saw more than one individual at a time, it is clear that several were involved; comparison of photographs of the 2019 females showed variations in patterns of markings, and in one instance a specimen with intact wings was seen on a later date than one that had suffered wing damage.

*Chrysotoxum cautum*: male (above, 2018), female (below, 2019)  Photos: David Iliff