Soldierflies and Allies Recording Scheme

Newsletter 7, spring 2020

Edited by Martin C. Harvey
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The Downland Robberfly Machimus rusticus *from Ivinghoe Beacon, 12 July 2019 – the first record of this species in vice-county Buckinghamshire. Recorded and photographed by Sue Taylor.*

Welcome to the spring 2020 newsletter, with many thanks to everyone who has contributed records, photos and articles.

See page 2 for Linda Pryke's account of how she got started with soldierflies and allies, and some of her highlights from 2019. On page 3 Alistair Shuttleworth describes how he found larvae of the rarely seen, and possibly overlooked, Pine Black soldierfly, *Zabrachia tenella*. Pages 4 and 5 return to a regular theme: bee-flies! With news of new county records for Dotted Bee-fly *Bombylius discolor*, an update on the latest Bee-fly Watch season, and the exciting possibility that Anthracite Bee-fly *Anthrax anthrax* is now established in Kent.

Finally page six has some recording scheme news and updates on training courses and publications.

I wish you many soldierflies and allies during the coming field season!

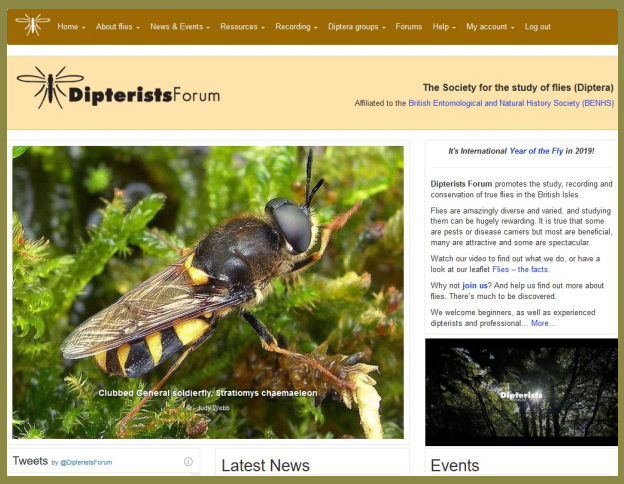
Martin Harvey

Dipterists Forum links and reminders

The Soldierflies and Allies Recording Scheme is part of the Dipterists Forum (DF). Keep an eye on the DF website www.dipterists.org.uk for lots of information and news about flies in general, and look out for:

- Latest news
- Forthcoming events including field meetings and training workshops
- Diptera links and equipment suppliers
- The full list of Diptera recording schemes
- Local Diptera groups
- The UK Diptera Checklist
- Discussion forums (join DF to take part)

If you are not already a member of DF please do consider joining – you'll get a brilliant Bulletin, full access to the website and the chance to join in with events and help promote the study of flies.



Getting to know soldierflies and allies during 2019

by Linda Pryke

Fly recording for me began as it does for many of us these days: seeing and photographing unusual or attractive looking flies, then trying to find out with varying degrees of success what they were. I've found soldierflies, horseflies and robberflies particularly bewitching and attractive (well I think so!), easy to spot, often large and distinctive, although not always easily got to species from photos.

Most of my identifications had been achieved with the help of Steven Falk's Flickr collections, and the ever-patient help from the British Soldierflies and Allies Facebook group. Since 2012 I'd logged many bee-flies *Bombylius major* and have an ever-growing tally of those hairy-eyed *Chloromyia formosa* from my garden.

This year I was fortunate to get a place on an FSC Biolinks course devoted to soldierflies and allies led by Martin Harvey, covering everything from practical fieldwork to id (field & lab) to recording and more. I really enjoyed the time, and I'd recommend something similar to anyone interested in soldierflies, or who are looking for an intro into fly ID and recording (see page 6 for a similar course in 2020). For those who don't wish to continue with microscopes and lab work afterwards, I believe there's still plenty that can be achieved once the basics are in place, with the support of the recording scheme.

For me the course sorted out the finer points, vastly improving my ID success rate, which is encouraging. I get the best out of my photos and in the field by making sure I've got the features that separate similar species. There's more that I can do with a hand lens, and finally there are those that can be put under the microscope.

Overall, it's been an enjoyable & productive year. I think my personal favourites will always be those magnificent robberflies, but the highlight for me, and I suspect many, has to be the appearance of the Downland Villa bee-fly *Villa cingulata* in unexpected places (for us, they were buzzing around the meadows during Martin's field ID day at Bushy Park!).

Looking ahead, who knows what 2020 will bring, but if it brings it to my corner of north Surrey there's every chance it'll be photographed, identified and recorded.

Linda's photos show, from top to bottom:
Stripe-legged Robberfly *Dioctria baumhaueri*; Broad Centurion soldierfly *Chloromyia formosa*;
Kite-tailed Robberfly *Machimus atricapillus*; Downland Villa bee-fly *Villa cingulata*

Larvae of Pine Black soldierfly, *Zabrachia tenella*, in Scotland

by Alistair Shuttleworth

In the spring of 2019 one of a small group of pines at Cullaloe LNR (Fife, VC85) was chopped down, presumably because of beetle infestation. I have kept an eye on this cut down pine, which hasn't been moved, and swept over it occasionally, but it didn't give up anything interesting. In September I decided to peel back some bark to see if I could locate the beetles. This wasn't successful, but I noticed a larva which immediately struck me as stratiomyid, though with abundant setae.

Left: life under the bark of the fallen Scots Pine trunk; right: one of the larvae found under the bark. Photos by Alistair Shuttleworth.

On returning home I keyed it out using Stubbs and Drake "Soldierflies and Allies" and it ran easily to *Zabrachia tenella*. I was delighted to find the species description exactly match the situation it was found in under pine bark and in association with beetle tunnels. I had decided to leave the bark substantially alone, but in December I took off another small section of a few inches square and located another larva, which I'm currently trying to raise through with some of the removed bark. I'll leave the remainder of the bark alone in the hopes that it will produce further adults.

Zabrachia tenella adult. Photo by Dick Belgers at waarneming.nl, a source of nature observations in the Netherlands.

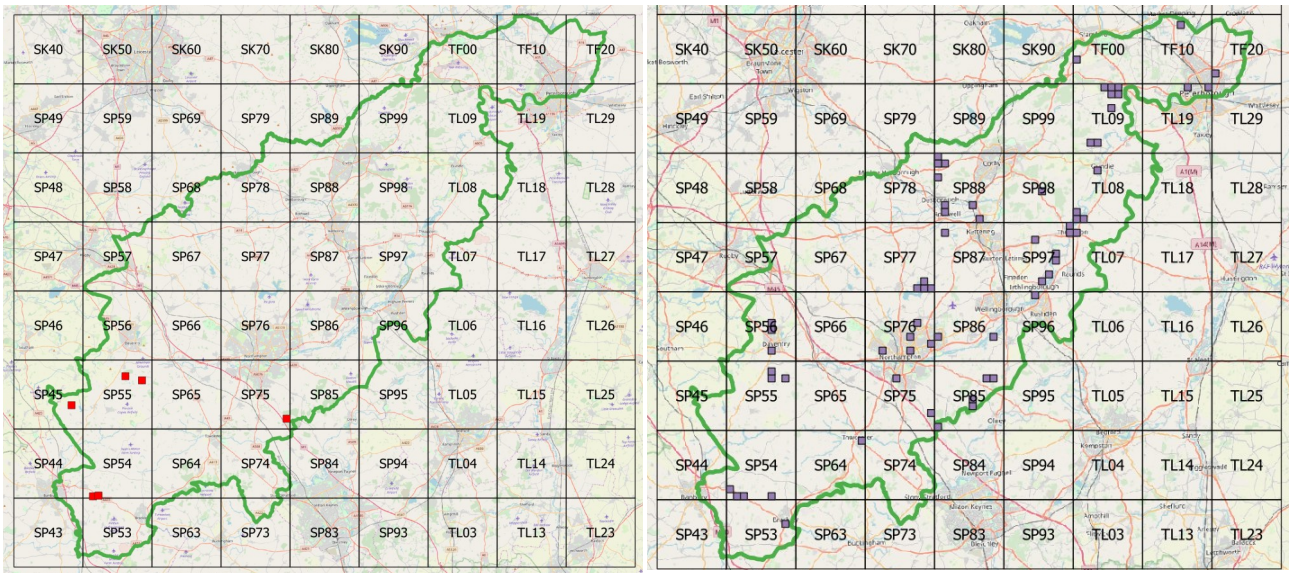
This is a group of half a dozen pines on the edge of an old, decommissioned, reservoir, though it is close to a large Forestry Commission woodland. A visit to that woodland suggests it is made up of mostly spruce and some larch, and though some bark beetles were located no further dipteran larvae were located as yet. However, it seems reasonable to suppose that there is a population in the area, e.g. nearby Cullaloe Hills has plenty of Scots Pine.

[*Zabrachia tenella* was categorised as Endangered and Nationally Rare in the recent review (Drake, C.M. 2017. A review of the status of Larger Brachycera flies of Great Britain – *Species Status* 29. Natural England Commissioned Reports 192), due to an apparent severe contraction in its range in recent decades. The recording scheme has records from Scotland but not since 1938, and the only recent records available to the scheme are from south-east England. So this record from Fife is very welcome. However, it appears that there may be other Scottish records that are not yet in the scheme nor supplied to the NBN Atlas.]

Dotted Bee-fly *Bombylius discolor* in Northamptonshire

by John Showers

As was reported in the spring *Bulletin* of the Dipterists Forum, *Bombylius discolor* was first recorded in Northants in 2019, although a photograph taken in April 2018 by Chris Colles at Boddington churchyard also turned out to be of this species. After prompting local recorders to look out for this species a few more records were submitted. So far all records have come from the South-west of the county, as can be seen on the attached map. The Northants Biodiversity Records Centre ran a "Look out for Bee-flies" campaign. The differences between *B. major* and *B. discolor* were explained so it is believed that the distribution map truly reflects the distribution in 2019. For comparison I have attached the map of *B. major* records for 2019. The "Look out for Bee-flies" campaign will be run again in 2020 to see if the distribution has changed.



Left: *Bombylius discolor* in 2018/19 (red squares) ; right: *Bombylius major* in 2019 (purple squares); Northamptonshire boundary in green; Underlying map © OpenStreetMap contributors

Anthracite Bee-fly *Anthrax anthrax* in numbers in Kent

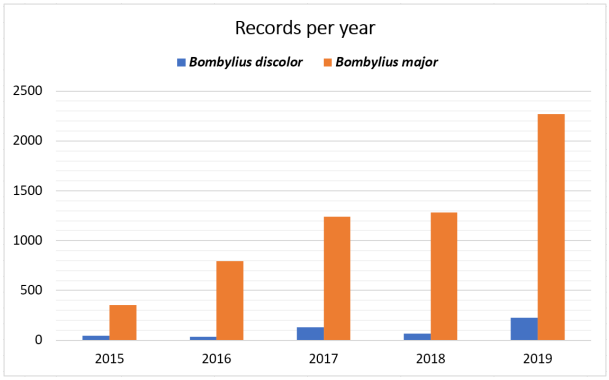
In Newsletter 6 we reported that Michael Woods had managed to get a brief glimpse of what was very likely to be a second UK record of the Anthracite Bee-fly, *Anthrax anthrax*, near Canterbury, Kent, in 2018. In 2019 Michael saw another, a female at exactly the same spot as in 2018. Further individuals were later seen on another 11 other occasions over 18 days, 26 May to 15 June.

There have been two other reports in the UK for which details are yet to be fully confirmed, and it is looking more and more likely that this bee-fly is going to become an addition to the UK fauna.

Anthrax anthrax in Kent. Photo by Michael Woods.

Bee-fly Watch 2019

by Martin Harvey

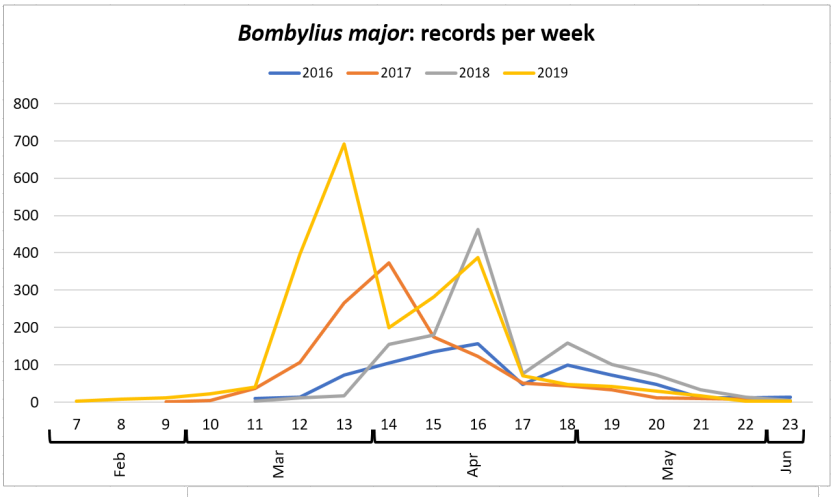


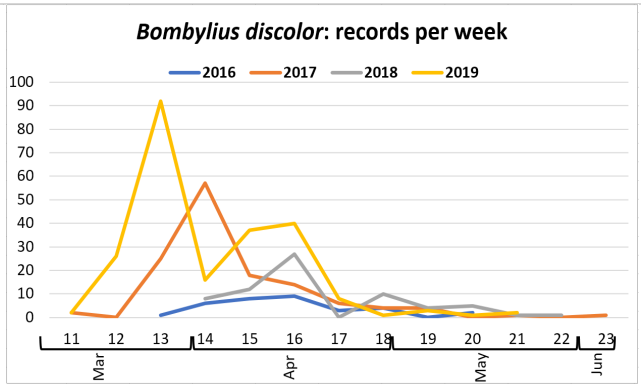
Bee-fly Watch has now been running for four years , and 2019 seems to have been an excellent spring for the two target species: Dark-edged Bee-fly *Bombylius major* and Dotted Bee-fly *B. discolor*. Both were recorded in much higher numbers than ever before – in part due to continued publicity for the project (aided in 2019 by the focus on Year of the Fly), but there is little doubt that the spring weather conditions meant that these two species had a good year, and emerged earlier than has previously been the case.

In fact *B. major* emerged earlier than it has ever done before, with the first two records on the astonishingly early date of 17 February 2019 (Brian Hopper in East Sussex and Wes Attridge in Surrey). And the peak of records was in the last week of March, about three weeks earlier than in the cooler conditions of 2018. *B. discolor* showed a similar pattern with the earliest record on 17 March 2019, found by Keith Ross on the Kent coast (not quite beating the earliest 2017 date of 15 March). Both species show a clear pattern of early seasons in 2017 and 2019, and late in 2016 and 2018.

As usual, a few records were submitted of *B. major* in late June and in July, and also as usual none of these were supported by photos! Some may well refer to the Western Bee-fly *B. canescens*, which has a later flight period, and in at least one or two cases they seem to be misidentified Humming-bird Hawk-moths. (If you see a late bee-fly in 2020 please do try to get a photo to support the record, so we can establish the end of the flight period more clearly.)

B. discolor continued to spread its range to the north and east. As well as the Northants records (see previous page), in 2019 there were new vice-county records for Staffordshire (from Thomas Woodhall and Lukas Large) and amazingly in Leicestershire (Alexandra Wallace-Hicks). In Surrey Ryan Mitchell had the first fully confirmed record for the county since 1964 (following a probable but unconfirmed sighting in 2015).





B. major was recorded widely as usual. During 2019 a comprehensive review of its Scottish distribution was published by Murdo Macdonald and James McKellar (see publications on the following page) showing that its range there has remained relatively constant, but with increased records resulting from the greater recording effort in recent years.

What will happen in 2020? Take part in Bee-fly Watch to find out!

- www.brc.ac.uk/soldierflies-and-allies/bee-fly-watch

Recording scheme updates

Training courses and resources

During 2019 we updated our guide to identifying bee-flies in genus *Bombylius*, to provide some more information on how to distinguish the two clear-winged summer bee-flies: Western Bee-fly *Bombylius canescens*, and Heath Bee-fly *Bombylius minor*. See: www.brc.ac.uk/soldierflies-and-allies/node/81

We ran an identification workshop in January 2020 as part of the BENHS series. Later in the year there is a workshops as part of the FSC's BioLinks project:

- Soldierfly ID with Microscopes, Thurs 18 June 2020, FSC Bishops Wood, Worcestershire (www.field-studies-council.org/biolinks-courses)

Soldierflies and allies in Dipterists Digest

The following articles and notes have appeared in the three most recent issues of *Dipterists Digest*.

- Andrew, R.H. 2018. A fifth site for *Chrysops sepulcralis* (Fabricius) (Diptera, Tabanidae) in Dumfries and Galloway. *Dipterists Digest* **25**: 177–178. [Brief descriptions of the sites supporting this species, which is confined to the Dumfries and Galloway area in Scotland.]
- Neill, W., and Macdonald, M. 2019. Occurrence of *Dioctria baumhaueri* Meigen (Diptera, Asilidae) in the Western Isles. *Dipterists Digest* **26**: 47–48. [An unusual early emergence a long way outside the normal range, maybe translocated with human assistance.]
- Macdonald, M., and McKellar, J. 2019. The Dark-edged Bee-fly *Bombylius major* Linnaeus (Diptera, Bombyliidae) in north Scotland. *Dipterists Digest* **26**: 169–174. [Reviews the records of this species and provides information on its habitats, phenology and flower and host associations in north Scotland.]

Year of the (Soldier)Fly

One of the ways in which Dipterists Forum celebrated Year of the Fly was by publishing a series of "Fly of the month" blogs on the BBC Wildlife website. Soldierflies and allies appeared on three occasions, in each case providing lots of fascinating background stories as well as information on the main subject species:

- Hornet Robberfly *Asilus crabroniformis*, by Erica McAlister
- Clubbed General soldierfly *Stratiomys chamaeleon*, plus how soldierflies got their name, by Malcolm Smart
- Bee-flies, Bombyliidae species, by Erica McAlister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Fly of the Month – Clubbed general soldierfly

The 48 species of the family Stratiomyidae or soldierflies include what are amongst the most spectacular flies in Britain, argues Dr Malcolm Smart. They rival the hoverflies both in respect of their size and brilliant colour patterns. It is appropriate that one of our flies of the month should be a characteristic stratiomyid.

Many thanks to Erica and Malcolm for sharing their knowledge and enthusiasm. You can read the whole fly of the month series via www.discoverwildlife.com/tag/year-of-the-fly

Social media

Don't forget that you can join in with discussion and identification assistance on Twitter and Facebook: Twitter: @SoldierfliesRS – Facebook: British Soldierflies and Allies

Records welcome

The recording scheme can only function if people send in their records – please continue if you are a regular recorder, and if you haven't yet sent any in now is a good time to do so! Even if you are just starting off with your first Dark-edged Bee-fly record it all helps build up our knowledge of the species.

- Information on recording: www.brc.ac.uk/soldierflies-and-allies/records
- Records on iRecord: www.brc.ac.uk/irecord/activities/summary?group_id=350&implicit=
- Identification information: www.brc.ac.uk/soldierflies-and-allies/resources

Thanks to the Biological Records Centre for supporting the recording scheme website.