

Soldierflies and Allies Recording Scheme

Newsletter 1, autumn 2013

Edited by Martin C. Harvey
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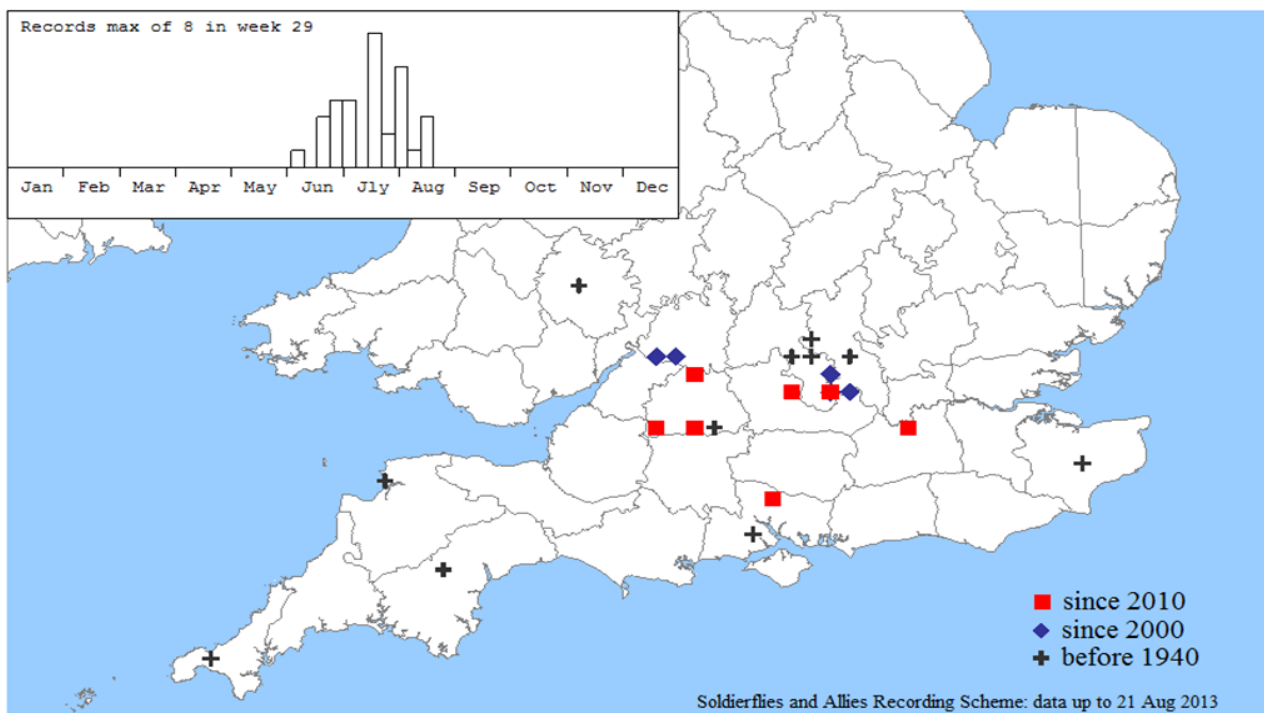
Villa cingulatus, Buckinghamshire
© Martin Harvey

Welcome to the first edition of the newsletter for the Soldierflies and Allies Recording Scheme! This follows on from the 28th newsletter of the Larger Brachycera Recording Scheme, which came out in spring 2010. Thanks to all who have contributed articles, photos and records.

Why the name change? Well, it's partly to bring the recording scheme in line with the title of the main book on this group of flies (i.e. the BENHS guide by Alan Stubbs and Martin Drake), partly due to the term "Larger Brachycera" having fallen out of favour with taxonomists, but mostly in order to make the recording scheme a bit more approachable and understandable for a wider audience.

Downland Villa on the move?

After the gap in records during the second half of the 20th century, the Downland Villa *Villa cingulata* is being recorded with increasing frequency and at new sites. The map below shows the data currently on the recording scheme database (not yet complete - I'm aware of some published records that haven't yet been databased). After being rediscovered in East Gloucestershire, Oxfordshire and Buckinghamshire in



Distribution map for Downland Villa, *Villa cingulata*, in southern England.

the first decade of the 21st century, records since 2010 have extended the known range to include Wiltshire (recorded by Andy Foster, Nick Upton and Paddy Saunders), Berkshire (Jason Gosling), and in 2013 to South Hampshire (Ivan Perry) and Middlesex (Martin Harvey). Many of these records are from calcareous grassland, but the Middlesex record is from flower-rich neutral grassland on the edge of Bushy Park in west London. So it looks like the Downland Villa could become a familiar species across a wide area of southern England, at least, and certainly one to watch out for in 2014.

Statutes and rules

Earlier this year Martin Drake undertook a review for Natural England of the conservation statuses of the species in the soldierflies and allies group, categorising them using the latest IUCN criteria. His report has been drafted but as yet we don't know what the route for publication will be. At the draft stage, of the 161 species reviewed:

- Four species are categorised as Regionally Extinct
- Six are Critically Endangered
- Six are Endangered
- Seven are Vulnerable
- Twenty are Lower Risk (Near Threatened)
- Twenty-two are Lower Risk (Nationally Scarce)
- Three are Data Deficient

Another project in early 2013 was led by the Biological Records Centre for the National Biodiversity Network and DEFRA, working with a range of recording schemes (including soldierflies and allies, compiled by Martin Harvey) to generate 'verification rules'. These rules are intended to assist in record verification, by flagging up records of species that are hard to identify, out of their known distribution, at the wrong time of year, or simply very rare. The rules for soldierflies and allies (plus many other recording schemes) are being used within the NBN 'Record Cleaner' software, and in the BRC's iRecord system for online recording. A report on the process is available from the NBN website at: bit.ly/verify-rules, and a copy of the identification difficulty categories for each species is available from Martin Harvey.

Recent records

Irish Robberfly Machimus cowini

This species was first found in Britain on the Isle of Man, and is also known from Ireland, but until this year there had only been one record on the British mainland. However, it was seen in numbers on the coast near Morecambe Bay during the Dipterists Forum field meeting based at Lancaster, July 2013. (Photo of Phil Bright's specimen, via Darwyn Sumner.)

Golden Horsefly Atylotus fulvus in Scotland

This was rediscovered in Scotland in 2005, at Glenmoriston, after having not been seen for over 70 years. A second potential population has now been discovered, as described by Murdo Macdonald: "On a trip to check out [the ant]

Formica exsecta sites yesterday we stopped for lunch in a layby just outside Kinloch Rannoch. Hayley Wiswell pointed out a tabanid sitting on an Oxeye Daisy, and it was immediately obvious that it was *Atylotus fulvus*, last recorded there in 1923. We admired it (a female) in the hand before releasing it unharmed. It was my first 'wild' one, having only seen a bottled specimen caught by Jane Bowman before. This suggests that there is another surviving population in Perthshire." More information at: <http://www.hbrg.org.uk/FoHW/Tabanidae/Tabanidae.html>



Twin-spot Stiletto Thereva bipunctata

This species is most frequently found on coastal dunes, but there a few inland records. Nigel Jones reports: "I found a number of *Thereva bipunctata* at an inland site this year. Prees Heath, Shropshire. They were particularly to be found in an area that has been restored from arable to heath in the last few years. This area has much bare sand and sweeping across this produced plenty of individuals." It's always worth checking inland *Thereva*, they aren't always *nobilitata*!

Limestone Snipefly Symphoromyia immaculata

Raymond Uffen writes: "Some year ago I swept a substantial number of *Symphoromyia immaculata* from long grass on the southern slope of Nomansland Common, which was cultivated during world war 2. In the last two or three years the variety and number of insects swept from this area have been much reduced and *Symphoromyia* was not taken. Perusal of the Larger Brachycera book gave a good indication of the peak flight period, so I paid a visit on the afternoon 24 June 2013 and found both sexes of *Symphoromyia* to be one of the commonest species in my sweep net in the long grass areas around TL172122.

"A large area of sand and gravel pits SW of the old Hatfield aerodrome has been totally levelled and sown predominantly to tall grasses. I swept numerous *Symphoromyia immaculata* in the area TL1908 on the warm evening of 25 July 2013 from 8 pm. I am not aware of any information on oviposition sites of this species, nor larval description or rearing attempts. I cannot think of many similar grassland sites remaining in Hertfordshire."

Wood Snipefly *Rhagio annulatus* on Orkney

by Ian Andrews

On 11th July 2013, on a field trip mainly looking at birds and archaeology, together with an eclectic bunch of biologists and artists from Pocklington School, I was enjoying unusually fine weather on top of Wideford Hill on Mainland, Orkney, at HY412116. The minibus was parked in the open at the top of the hill (225m asl) and the rest of the group headed down the slope to find a chambered cairn.

In the meantime, I swept the rather dry moorland on the eastern side of this treeless hill, just below the mast on top. There was not too much there ... a few dolichopodids, swarms of *Dilophus* and the inevitable hordes of *Haematopota*. Returning to the minibus, my colleague Martin Butcher picked out a rather large fly resting on the passenger window, among the mass of smaller flies attracted to a white vehicle in the sun atop the hill.

I potted it up, as it was clearly a *Rhagio* and, with clear wings, not *scolopaceus*. I was surprised to find a *Rhagio* in such a spot, as the habitat was exposed, dry heather moorland going down to farmland, with not a bush in sight, let alone a tree. I later pinned it up and upon returning home was able to key it out from Stubbs and Drake to a female Wood Snipefly *Rhagio annulatus*. The lack of a dark stigma on clear wings, dark front coxae, dark humeri and palps, as well as mainly pale hairs on the abdomen, set it apart from *tringarius*.

Stubbs and Drake refer to the habitat preference of *annulatus* being 'woodland edge, occurring within dappled shade'. There is very little habitat



like that on Orkney at all. The name Wood Snipefly would seem to exclude it from the fauna of the islands straight away, in fact. Intriguingly, though, they also refer to a record of a pair taken on the neighbouring island of Hoy in June 1938, where trees are also largely absent. To whatever extent the fly is actually present on Orkney, it clearly occupies a different ecological niche there; it would be interesting to look into this further, if anyone is ever up that way ...

Brachycera of Counties Sligo and Leitrim, north-west Ireland

by Don C.F. Cotton, Rahaberna, Co. Sligo, Ireland; cotton.don@itsligo.ie

Living in north-west Ireland is full of opportunity in the field of natural history but it is also very lonely! Until recently there were no residents in Sligo or Leitrim with an interest in insects apart from myself. The adjoining counties of Cavan, Roscommon, Mayo and Donegal were also terra incognita for entomology. In the last 3 or 4 years six people have started running moth traps and this year two have branched out into the Odonata! Currently I only know of 8 records of 7 species of soldierflies and allies from this region (Chandler 1975; Speight 1987; Drake 1991). Perhaps there are many more records out there and if so I would appreciate being told about them.

These two counties contain a wealth of interesting habitat including ranges of hills composed of both acid rocks and limestone covered in blanket bog but with acid and calcareous flushes; over 600 lakes and ponds greater than one hectare some of which are larger than 1000 hectares; and 5 estuaries with saltmarsh habitats. What we don't have much of is broadleaved woodland.

Over my 32 years residence in this region I have tried to record a bit of everything. Since the publication of Stubbs & Drake (2001) I have identified and collected voucher material for Tabanidae, Asilidae, Stratiomyidae and Rhagionidae. Whilst there is nothing particularly rare, the records will make a modest contribution to our knowledge of their distribution. Here is a summary of the species so far recorded:

<i>Philonicus albiceps</i>	Dune robber fly	Sligo		Locally common
<i>Chrysopilus cristatus</i>	Black snipefly	Sligo	Leitrim	Common
<i>Rhagio lineola</i>	Small fleck-winged snipefly	Sligo	Leitrim	Common
<i>Rhagio scolopaceus</i>	Downlooker snipefly	Sligo	Leitrim	Abundant
<i>Rhagio tringarius</i>	Marsh snipefly	Sligo		Frequent
<i>Chloromyia formosa</i>	Broad centurion	Sligo	Leitrim	Common
<i>Microchrysa cyaneiventris</i>	Black gem	Sligo		One specimen
<i>Microchrysa flavicornis</i>	Green gem	Sligo		Common
<i>Microchrysa polita</i>	Black-horned gem	Sligo		Occasional
<i>Oplodontha viridula</i>	Common green colonel	Sligo		One specimen
<i>Oxycera morrisii</i>	White-barred soldier	Sligo		Uncommon
<i>Sargus bipunctatus</i>	Twin-spot centurion	Sligo		Uncommon
<i>Sargus flavipes</i>	Yellow-legged centurion	Sligo		Frequent
<i>Nemotelus notatus</i>	Flecked snout	Sligo		Locally frequent
<i>Nemotelus pantherinus</i>	Fen snout	Sligo		One old record
<i>Nemotelus uliginosus</i>	Barred snout	Sligo		Locally common
<i>Nemotelus nigrinus</i>	All-black snout	Sligo		One specimen
<i>Stratiomys singularior</i>	Flecked general	Sligo		Locally uncommon
<i>Beris fuscipes</i>	Short-horned Black Legionnaire	Sligo		Common
<i>Beris fuscipes / geniculata</i>	Short- / long-horned Black Legionnaire	Sligo		
<i>Beris vallata</i>	Common orange legionnaire	Sligo		Common
<i>Beris chalybata</i>	Murky-legged black legionnaire		Leitrim	One old record
<i>Chrysops relictus</i>	Twin-lobed deerfly	Sligo	Leitrim	Abundant
<i>Haematopota crassicornis</i>	Black-horned cleg	Sligo	Leitrim	Common
<i>Haematopota pluvialis</i>	Notch-horned (Common) cleg	Sligo	Leitrim	Too abundant !
<i>Hybomitra montana</i>	Slender-horned horsefly	Sligo	Leitrim	Locally common

The message that comes with this note is that there is a great deal to record and possibly discover in Ireland and a dearth of expertise. However, if collecting and recording is done in an area it is essential that the few local people with an interest in natural history are contacted, preferably when planning a visit, and that any records are forwarded to them so at least they know what species have been found in their home area.

- Chandler, P.J. (1975) An account of the Irish species of two-winged flies (Diptera) belonging to the families of larger Brachycera (Tabanoidea and Asiloidea). *Proceedings of the Royal Irish Academy* 75B:81-110.
- Drake, C.M. (1991) *Provisional atlas of the Larger Brachycera (Diptera) of Britain and Ireland*. Institute of Terrestrial Ecology, Abbots Ripton.
- Speight, M.C.D. (1987) The Irish asilid fauna. *Bulletin of the Irish biogeographical Society* 10:56-71.
- Stubbs, A.E. & M. Drake (2001) *British Soldierflies and their allies*. British Entomological and Natural History Society, Reading.

Yellow-legged Water-Snipefly, *Atherix ibis*, attracts interest

Great balls of fire, yes, but great balls of flies? Yet, this was the scene that confronted Devon Wildlife Trust's Louise Davis on a recent walk alongside the picturesque River Torridge in north Devon.

Louise, who works as the Water Resources Advisory Officer on Devon Wildlife Trust's Northern Devon Nature Improvement Area project, was busy conducting a survey of a stretch of the river near Torrington when she spotted something hanging over the water from a tree. Louise takes up the story: "It was about the size of my fist, dangling from a branch. Then I saw several other similar shaped balls all hanging from the same tree. At first I thought they were just debris that had got stuck, but on taking a closer look I discovered that each was a tightly-packed dome consisting of hundreds of flies. I'd never seen



anything like it before."



The pictures were circulated and came to me via Rob Wolton. It was the first time I'd seen this behaviour, but fortunately it is well-described in Stubbs and Drake, whose description matches exactly what Louise saw: "*Atherix ibis* is famed for behaviour which is widely referred to in the literature although one which is not often seen. When preparing to lay their eggs, females form dense clusters on branches overhanging a river, often amounting to hundreds of flies. Usually they assemble where some flood refuse has been caught in a branch, giving a good base on which to cling. The females lay their eggs in a glutinous matrix and then die, leaving a suspended mass of dead flies and eggs."

Devon Wildlife Trust's news item is at:

bit.ly/DevonWTflies

Recording scheme database summary

Last winter my predecessor, Simon Hayhow, drew together all the records he had collated and passed them on to the Biological Records Centre. Steph Rorke at BRC did a fantastic job in compiling the varied datasets into a single database - many thanks Steph! That database has now been passed to me, and I'm consulting with BRC over how we can best maintain it into the future.

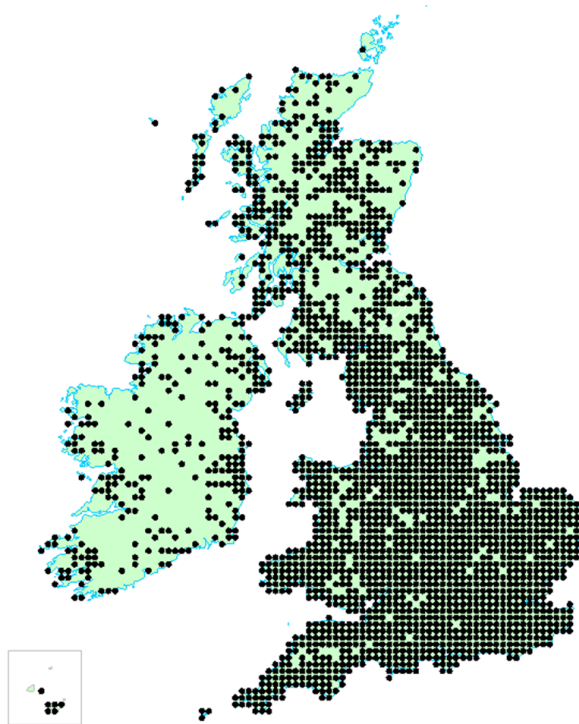
There is a backlog of data still to be incorporated, and I hope there is also lots of data out there waiting to be sent in (see page 8)! So there is a way to go before we are bang up-to-date, but in the meantime I thought it would be worth summarising what the database holds.

There are 80,851 records in the database altogether, covering 155 species. In recent decades the scheme has been receiving around 2,000 records per year, although this drops off a bit during the last few years when the scheme has been in transition.

The top most recorded species is: Broad Centurion *Chloromyia formosa*, followed by Black Snipefly *Chrysopilus cristatus*, Common Orange Legionnaire *Beris vallata*, Notch-horned Cleg *Haematopota pluvialis*, and Dark-edged Bee-fly *Bombylius major*.

Around 1,500 people have contributed at least one record, and the most prolific (over 1,000 records each) are: Martin Drake, Mick Parker, Keith Alexander, Mike Edwards, Alan Stubbs, Roger Morris, Steven Falk, Laurence Clemons, Ivan Perry, Richard Dickson and Andrew Grayson. Ivan Perry has seen most species, followed by Alan Stubbs, Martin Drake and Peter Chandler.

And finally the 10-km square that contains the greatest number of species is: SU30, covering the New Forest. Next most species-rich are three areas in Surrey (TQ05, SU94 and TQ15), and then SK38 covering Sheffield (well-recorded by Austin Brackenbury and others).



Total coverage of all the records in the scheme database at August 2013

Watch out for the Black Soldierfly, *Hermetia illucens*

Malcolm Storey and Chris Raper reminded me that we should be looking out for the Black Soldierfly, *Hermetia illucens*. Its larvae develop in rotting material and wet parts of compost heaps, and it's apparently used in various parts of the world for organic waste disposal. The larvae are advertised online as lizard food, so the chances seem high of it emerging from neglected lizard food, or from someone experimenting with their compost heap.

Peter Chandler exhibited specimens from Sri Lanka at the 2012 BENHS Exhibition, with a report of the larvae having possibly been found in Ireland, but as far as I'm aware that report has not been confirmed, and although there are rumours of sightings being circulated on the internet as far as I'm aware none have been fully confirmed (at least one was mistaken identity of a sawfly). Wikipedia has a good account and photos: http://en.wikipedia.org/wiki/Hermetia_illucens. If anyone thinks they've found it in Britain or Ireland please get a specimen or good photo and let us know!

Soldierflies and allies training workshops

Saturday 18 January 2014

Identifying and recording Soldierflies and their allies

One-day workshop at Natural History Museum, London

Soldierflies and their allies form an attractive group of flies, with fascinating life histories. Many of the species are large and distinctive, but as with most insect groups there are others that are more challenging to identify. This workshop will introduce the group and take you through the steps required to gain experience of identifying the species, based on the keys in "British Soldierflies and their allies" (Alan Stubbs and Martin Drake). Much remains to be learnt about soldierflies and their allies, and the workshop will also cover how you can get involved with the recording scheme for the group. Led by Martin Harvey. For details and bookings see: <http://www.benhs.org.uk/site/?q=node/17>

Friday–Sunday 30 May–1 June 2014

Hoverflies, Soldierflies and Robberflies: An Introduction to Diptera

Weekend residential course at Flatford Mill Field Studies Centre, Suffolk

Hoverflies, soldierflies, robberflies and related families include some of our largest and most colourful insects. Some are easy to find whereas others require dedicated searching, but these groups are all within reach of anyone with an interest in insects. They provide an ideal starting point for the study of Diptera, with good identification keys available in well-illustrated books. We will explore the natural history and ecology of these groups and visit a range of habitats, finding and photographing flies and observing their behaviour. Back in the lab identification will be taken to species level, using a mix of photography, microscopes and voucher collections. Led by Martin Harvey. *NB dates are provisional, please check with Field Studies Council when the 2014 programme is published.*

British soldierflies and their allies, by Alan Stubbs and Martin Drake

The long-awaited second edition of this book is in the late stages of preparation for publication, but a firm date has yet to be announced. Watch the BENHS website for news!



Broad Centurion *Chloromyia formosa*, the most-recorded species in the recording scheme © Martin Harvey

Sending in records

The recording scheme is ready and waiting to receive your records! These can be sent in various ways:

via iRecord

This is my preferred route for receiving records, via the iRecord online recording system, developed by the Biological Records Centre: <http://www.brc.ac.uk/iRecord/>

I'd suggest using the form to "Enter a list of records" or the form for "Enter a casual record". The advantages of iRecord include the fact that it is easy for me to see and process the incoming records, it makes use of the "verification rules" for the soldierfly group (see item on page 2), data on iRecord becomes available both to the scheme and to the relevant local environmental records centres, and it's free to use and doesn't require the installation of any software (but it does require connection to the internet). But not everyone will want to use iRecord, and there are plenty of other options.

via MapMate

If you use the MapMate database I can accept sync files or spreadsheet exports. If you want to send a sync file, set your filters to:

- Records - My Records (or All Records if you have received relevant data from other MapMate users)
- Sites - All
- Taxa - Insecta: Diptera: Larger Brachycera

and generate a sync file for Centre Unique Key "bnt". Contact me for further details.

via other databases

There are other good biological recording databases available, such as Recorder and Gilbert 21, both of which can produce spreadsheet exports that are fine for the recording scheme.

via spreadsheets

Records on a spreadsheet (such as Microsoft Excel, or the free Open Office Calc) are fine. I prefer one record per spreadsheet row. I may be able to supply a spreadsheet template if required.

via email

For one-off records or occasional sightings then just sending an email is fine (although if you do start recording on a regular basis one of the above methods is preferable).

on paper

Paper records are not forbidden! I have to say that they're not my favourite thing, simply because they take more time to process, but where no other option is available paper records are of course welcome.

I can be contacted at kitenetter@googlemail.com, or on 07816 963576. I look forward to receiving your records! If you want to check whether your records are already in the scheme database please ask.



Hawk Honey sent in his record of Banded General Stratiomys potamida, and it turned out to be the first in his 10-km square for over 100 years