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Spring 2017



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Pending DF website update, back page redesign is deferred. Add Agromyzidae (this issue) and Calliphoridae (Bulletin #81). Biological Records Centre lists all schemes at www.brc.ac.uk

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Dipterists Forum Forum www.dipteristsforum.org.uk/index.php

Photographs: Front cover Conops quadrifasciatus, John Showers, above, Darwyn Sumner

Apologies to **Paul Brock**, it was his photograph of *Chrysops sepulchralis*, Hartland Moor, Purbecks, 18 July 2016 on the inside front cover (not Alan Outen's). Other photographs as supplied by the authors or the editorial panel who would be pleased to receive illustrations for general purposes - many thanks for those already sent. If you want to catch the next front cover, please think about the orientation, it must be upright (portrait)



BULLETIN OF THE



Contents

| Editorial | |
|-------------------------------|----|
| Notice board | 5 |
| Recording Schemes | 5 |
| Regional | 9 |
| Conservation | |
| News from the regional groups | 16 |
| Devon Fly Group | 16 |
| Members | |
| Membership Matters | 18 |
| Review | |
| Meetings | |
| Reports | 23 |
| Forthcoming | 26 |
| Contributing Bulletin items | 28 |
| | |

Dipterists Forum Events

Please consult the Dipterists Forum website for latest details of our events.

Booking form for meetings & Membership form: downloadable from Dipterists Forum website or contact the organiser.

The following Newsletters and other special items are incorporated into the package for the printers after completion of the Bulletin. They are not to be found in any pdf version of this Bulletin and they have their own pagination. Please contact the Newsletter editors for full colour pdfs, back issues may also be found on the DF website.

Hoverfly Newsletter #62 🔁 Soldierflies Newsletter #4 范 Cranefly Newsletter #32 🔁

A number of links @ and downloads referred to in this Bulletin are to be found on our website under Web links.



Forum News Editorial

Golden years

Michael McCarthy's article "Apocalypse unseen" in British Wildlife will ring a bell with many, in it he states that "*insect abundance in Britain is very largely a thing of the past*" and that the insect class as a whole is being ravaged to an astounding extent. He reckons that we cannot demonstrate it, we can only infer it - but is that strictly the case.

For a long time we've worked around the year 1970 as a key date to compare distribution and abundance before and afterwards. Many printed atlases will use this date, it's the default "open circle" date in Recorder 6 and it crops up in other places.

1970 was used as a key date in the State of Nature report, in there we see statistics regarding declines since then. They used *abundance* and *occupancy* as measures, the former is tricky for us unless we carry out specific surveys to count stuff (like the butterfly people can) and the latter is a complex statistic to do with ranges which a species occupies or can occupy.

The State of Nature team arrived at a figure of 59% decline in invertebrate species using a metric combining abundance and occupancy, their figure was based on *representative* taxa for which they only had data from ~500 invertebrate species across the UK available to them, mainly from structured monitoring schemes. It is unlikely that many of those were of Diptera.

Getting from atlas maps to usable occupancy range outlines is complicated, so complex that whole journals are devoted to the subject. The article that outlines the issues involved is one that you hopefully downloaded from the batch that the Linnaean Society made available free for a while to celebrate BRC's 50th anniversary: Maes et al., 2015. *The use of opportunistic data for IUCN Red List assessments*. It ties together several of the above ideas. Perhaps too technical for all except true addicts but it does have a neat set of maps showing how they got from classic distribution maps to a fair estimate of a range - like the maps Stuart Ball once showed us when he calculated ranges for hoverflies.

You can view atlas maps for any Diptera species on the NBN Gateway, try it with our "Red List" species (e.g. from one of the Reviews or from Rob Wolton's account in this Bulletin). By setting the date ranges, changes may become apparent and you can estimate changes in "area of occupancy" by counting the squares - just like the IUCN people do, I'd suggest a timeframe of calendar decades, it's the one which our Diptera Reviews appear to be using.

So can we calculate a figure for Diptera decline? Well maybe someone can one day, but certainly not without the digitised data.

Taking the p

According to the latest Acalyptratae Review the authors were unable to apply the full IUCN status codes to all our threatened Diptera taxa because to do that one would have to demonstrate a change in population over a specific time scale. So all the codes are in the form p[code]. Given that the next review is due 5 years from now it seems more than likely that that one will have to be calculated from digitised records in databases. That gives us all a timescale to work to to ensure that the species listed in there are thoroughly extracted and submitted via the Recording Schemes (or other sound verification process) to the NBN Gateway/Atlas.

The report doesn't detail the Recording Schemes involved, there are currently 8 of them covering 17 Families. This leaves a further 30 Families without any coordinated recording initiative. Nonetheless these Families are being recorded, according to the 2015 list from BRC, there are 5395 records on iRecord from the

schemes (some verified, some not) and 3787 just waiting for some initiative to deal with them. The Review lists 64 species as "data deficient", there are surely some valuable records of threatened Diptera amongst those iRecords.

Dipterists Forum are working on a plan to put together a group of experts prepared to verify all those Acalyptrate Families on iRecord, this may be problematic but it is surely feasible.

Look in your notebooks for records of these threatened species & pop them onto iRecord. You've until the end of the decade when they get re-reviewed.

Local news

Darwyn Sumner

If the articles in the twice-yearly Bulletin aren't enough to satisfy your thirst for general knowledge about wildlife then there are numerous local (vice-county based) newsletters that are truly excellent and may occasionally even produce items of Diptera interest (as with Scotland's BRISC http://brisc.org.uk/newsletters/Pending/BRISCRecorderNews104-Screen.pdf). The local one which came to my attention recently was the GIGL newsletter (that's London's LERC) which is accessed online at http://www.gigl.org.uk/gigler/. As you can imagine, being a LERC, there's lots about general wildlife recording in there together with a couple of reports about recent conferences (NBN, ALERC). A link in the latter takes you to a presentation about the experiences Sussex Biodiversity Records Centre are having with **iRecord**. Well worth a look at as it's got some figures and diagrams by Martin Harvey and comments about using it by their county recorder for butterflies and moths (32,000! my entire recording scheme dataset is only 4,083).

Nigel Jones also tells me I should sign up to Facebook and pursue the Diptera messages in there, he's certainly finding some interesting stuff. If you want some current tales on the environment, NFBR's page at https://www.rebelmouse.com/NFBR/ is always full of stories, great or small.

Change in nomenclature

The **NBN Gateway** is changing to become the **NBN Atlas**. It is termed a GBG (Global Biodiversity Gateway), an online repository for species data and there are only a handful in the world, the UK's Atlas and GBIF which covers Europe are the ones we're most likely to encounter.

Atlas progress

Another newsletter to watch out for is from the NBN at https:// nbn.org.uk/ The item of interest here concerns the progress with replacing the NBN Gateway with the NBN Atlas. NBNt's CEO Jo Judge outlines the planned progress with this development. By the end of March this year the Gateway will be gone and replaced by the Atlas. If you're a user you might want to familiarise yourself with how it all works by taking a look at NBN Atlas Scotland which went live some time ago. One feature I'm looking forward to is the ability to query, remove or change individual dodgy records something that's been bothering several dipterists for some time. There's uncertainty as to when this feature will be implemented but the Atlas system allows NBNt to respond to users requests for additional functions far more readily than the Gateway, the flexibility in this regard was one of the prime reasons for the change.

Recording Scheme details

Changes to the Recording Scheme details on the back page of this Bulletin are scheduled after the revision of our website in order to accommodate forum and scheme website links

Darwyn Sumner

Notice board Recording Schemes

Hoverfly Recording Scheme

Newsletter #62 included in this Bulletin

David Iliff

Cranefly Recording Scheme

Newsletter #32 included in this Bulletin

John Kramer

Soldierflies Recording Scheme

Newsletter #4 included in this Bulletin

Martin Harvey

Sciomyzidae Recording Scheme

In advance of Stuart Ball's workshop in February, a lot of progress has been made in gathering together all the records and developing improved keys. Expect something substantial in the next Bulletin.

Darwyn Sumner

New scheme

Agromyzidae Recording Scheme



A new National Recording Scheme has been launched for Agromyzidae, leaf-mining flies, and is recognised by BRC as one of the Diptera Recording Schemes. The Agromyzidae are a large family with approximately 400 species being recorded in the UK.

There is still so much we don't know about Agromyzidae, with the lifestyle of over 50 species still unknown and even when the lifestyle is known, we may not know what the host plant is for that species.



Phytomyza artemisivora

The Agromyzidae Recording Scheme has been set up to enable us to gain a much greater understanding of the family, in terms of population and distribution trends, host plants and lifestyle. To enable this, the scheme will be collating records from all over the UK, through Local Record Centres, wildlife organisations and individuals (both amatuer and professional naturalists).

Another aim of the scheme is to promote and increase public awareness of these fascinating insects, which will hopefully lead to the general public engaging in the scheme.

A website dedicated to Agromyzidae (www.agromyzidae.co.uk) is currenly under development. The aim of the website will be to provide a descriptive and illustrative guide to the Agromyzidae of Great Britain.

However, due to the amount of work involved in creating such a website, this will take a substantial amount of time and therefore, the site will operate as 'work in progress' for the foreseeable future.

With regards to submitting records to the scheme, the scheme welcomes records from experts and novices alike. Records will be gratefully accepted in any form, although an Excel format is preferred. The standard information is required when submitting any record (name, grid ref, county, locality, date, recorder, determiner, number, gender) and would be supported, wherever possible, with photographic eivdence (for larval mines) or a specimen (adult flies).



Liriomyza strigata

Data received through iRecord will be incorporated in the scheme. At present, there are 4,000 Agromyzidae records held within iRecord. All data received will be managed by the scheme organiser, with datasets being periodically passed on to BRC to enable access for research and conservation purposes.

It is hoped that in the future, the scheme will be in a position to be able to produce a comprehensive atlas for Agromyzidae.

To submit a record, or if you would like to know more about the scheme, you can either email agromyzidaeRS@gmail.com or contact us via Twitter @AgromyzidaeRS, This account will be used to answer any queries the general public may have, submitting records and to share Agromyzidae news.

I would like to thank the following for all their backing, support, guidance and ongoing help; Andrew Godfrey, Andrew Grayson, BRC, David Gibbs, David Henshaw, Dipterists Forum committee members, John Coldwell, Rob Edmunds and Willem Ellis.

I would also like to thank anyone who participates in the scheme, to help make it the success I am hoping for.

Barry Warrington (agromyzidaeRS@gmail.com) (Treasurer of the Yorkshire Naturalists Union - ed) 36 Marlborough Avenue, Hessle, HU13 0PN 07732319723

Anthomyiidae Study Group

Anthomyiidae Study Group (ASG) update

Having grappled with the Muscidae for a few years, I have discovered that it is hard to distinguish them from Anthomyiids in the field or indeed in the net. Until this year I was discarding the many specimens I found to have subscutellar hairs and an anal vein reaching the wing margin. This year, I resolved to get to grips with this family using the comprehensive keys and other material available from Michael Ackland via the ASG page on the DF website. Together with the information imparted at this year's February "calli-rhino-sarco" workshop, this has filled the last major gap in my repertoire of larger flies commonly found by sweep-netting.

I soon found that several Anthomyiid species are abundant in early spring, and started achieving some plausible identifications. Michael was very helpful with some early terminological queries from me (as can be seen on the ASG page). I had also noticed in February a request for help with organising some spreadsheets of records for uploading to the NBN. Although it said there was no need to be an Antho studier, I thought it would certainly help to be involved with the national data if no-one else came forward. And so it is that now that the dark days have arrived, I have embarked on this task. Things are going well, so well in fact that Michael has replaced his name with mine on the NBN website as contact for the ASG.

The current dataset of 4,108 records was loaded in August 2010. It covers 235 species out of the current British checklist of 244. The hectad map below shows the distribution of these records – the darker colours indicating greater species richness. The additional records which I am currently processing amount to another 1267.

the Study Group. Potential new contributors should contact me for details of the preferred Excel spreadsheet format. Newcomers like myself may find also it useful to exchange experience in using the keys and diagrams, and perhaps form a self-help group for gain confidence in the identification of the common species.

The Dipterist's Handbook states that "a Study Group does not run a formal [recording] scheme but is set up when somebody wishes to establish a network on a family to encourage interest by others or to develop keys, but without the responsibility involved in assembling and processing masses of data." We may now be at the stage where this one evolves into a Recording Scheme. For my own part I do not aspire to be anything more than a competent user of Michael's keys enabling to me to explore the local geography and habitats of at least the commoner species of the family. Michael will continue to vet unusual records, to provide help on identification queries, and to develop the keys, particularly by adding new photographic illustrations of identification features to supplement the existing set of male genitalia drawings.

The map below is the distribution of all NBN records for Anthomyiidae, which now number over 20,000. They fill in some of the blanks in the ASG dataset, particularly in Wales, the North Midlands and SW Scotland. These records originate from a large range of local records centres and other conservation organisations rather than specialist entomological groups, so that the nature of the verification they have received is uncertain. There are certainly more unpublished records, as for instance at my local records centre for Cheshire which has another 2375. I hope in future years to enlist the help of county and regional diptera recorders to review this additional data with a view to gaining a better understanding of the national distribution of individual species.



Recording scheme records

Almost all these records are from 2013 or before. We would welcome further records from previous contributors and members of



All NBN Gateway records

Phil Brighton helophilus@hotmail.co.uk

Stilt & Stalk Fly Recording Scheme

Updated dataset

Many thanks to all the people who have taken the trouble to send me records for this scheme over the past few years. Access can now be had to data published on the NBN Gateway (or Atlas as it will become shortly), in particular in the form of maps. The published data will also play a part in conservation and the protection both of those taxa and the sites they occupy.

To browse the published Stilt & Stalk fly dataset the link is https:// data.nbn.org.uk/Datasets/GA000307



Stilt & Stalk Recording Scheme records. Darkest 10km squares are 15+ records Compare with previous scheme maps in 2002 (Bulletin #54 p7) & 2004 (Bulletin #58 p7)

As a relatively small scheme the incoming information hasn't been too hard to manage, a lot of material comes in as spreadsheet lists at the end of the season, usually with an apology that there are only about 6 records. That seems to be about the scale of observations achieved by my regular contributors (and usually more than me.) For the more enigmatic species, photography is beginning to produce a handful of records. I took up the iRecord challenge too, choosing the method where one downloads to one's own system (Recorder 6). A lot of "near misses" by this system (e.g. blurry *Psila* phorographs) but it's here that I've seen old friends and colleagues having a crack at these taxa and come across new recorders. A lot of what we Recording Scheme organisers do relies upon networking - knowing and trusting the identifications from the people who sent them, making sure you've made the most recent identification guides readily available and providing feedback via notes in the Bulletin, Newsletters, and publishing to both Dipterists Digest as articles and as data to the NBN Gateway.

Rainieria calceata

One thing that iRecord seems to have resolved to some extent is the general reluctance to send just the one record to a recording scheme. Perhaps this should become a regular item on your "to do" list when you send Peter Chandler an article - bung the observations onto iRecord. He and I spent some time during this year chasing up details of the records for this species (assisted by John Ismay and Steve Falk). It was disturbing to see the paucity of records on the NBN Gateway for this species prior to my recent update.

You can read about this species in the new Acalypratae Review, bring up a UK distribution map on the NBN Gateway and here is the European distribution:



Pan-european distribution of *Rainieria calceata*. Data from Andersson (1989), Greve & Nielsen (1991). Merz (1997). Roháček & Barták (1990), Ceianu (1989), Roháček & Ševčík (2009), Séguy (1934), Weinberg, M. (1994) plus Phil Withers (pers comm), photo blogs and UK Recording Scheme. [D.Sumner]

Method: Call this a "thumbnail" map, more accurate, precise and informative maps are possible but that would require a book to explain it.

European distribution

Many thanks to Peter Chandler for helping me discover published papers in which there are georeferenced Micropezid & Tanypezid records. I'm now able to extract records across a substantial part of Europe for the taxa in my scheme and have a plan to be able to produce similar maps for all of them. It seems that a handful of recorders in other taxa (non-Diptera) are also using Recorder 6 to record in Europe (just a matter of temporarily changing the coordinate system from OSGB to Lat/Long). If you wish to develop European distributions in your group I have to warn you that it's a big task and for many countries there is no data. Museums aren't publishing Diptera data to GBIF so there's barely anything like our Gateway's data in Europe; published papers, photo blogs and friends collecting in Europe are currently the only data sources. Quite rewarding though, as Alan Stubbs told me "*it is especially important to gain perspective of status elsewhere in Europe*".

So what did I learn from developing the above map? Well it's unsurprisingly a pretty close match to the distribution of Beech trees - forests of which are at their most pristine in the Balkans. that photographers find *Rainieria* a good subject, that Phil Withers has done a fair bit of collecting across France and that despite its mediterranean climate there's a relict band of Beech in the higher altitudes of Corsica - look out for *Rainieria* there, it's not been seen for over a century.

Status assessment

Disappointing that *Neria femoralis* didn't make it onto the *Provisional Assessment of the Status of Acalyptratae flies in the UK* list. It's been seen once, I went to the site soon afterwards and didn't find it, then Bill Harwick reported that its only site had been turned into a car park (Bulletin #58) as in the words of the Joni Mitchell song (*paved paradise, put up a parking lot*). That's pretty close to extinct. If, as the authors tell us "*It is too early to assign a conservation status in the absence of further information.*" one has to wonder at what point it's "too late". Pluck the location details from the NBN Atlas and see if you can find it again in Cheshire. It looks nothing like the other *Neria*, it's got clobber like boxing gloves. Females are a little trickier - maybe they've got black eyes.

"You don't know what you've got 'til it's gone" (Mitchell, J., 1970, Big Yellow Taxi) - seems that people were aware of stuff disappearing even in 1970.

Do it yourself Statuses

In an attempt to use digitised data to assess a status using the IUCN criteria, I had a crack at *Micropeza lateralis*:

Area of occupancy

One acceptable way of measuring area of occupancy is simply to count up the number of occupied squares. This metric is described as such in the **IUCN Red List Categories and Criteria** book. The square size to choose seems to be 1km squares (monads) because modern recording resolution allows for this (only very old records are to 10km square.)

Time frame

The status reviews are published at 10 year intervals with the next review due in 2022. The best time frame therefore seems to be decades.

Result:

| | Pre 2001 | 2001 to 2010 | 2011 to 2016 |
|-------------------|----------|--------------|--------------|
| Total occurrences | 69 | 35 | 18 |
| Hectads (10km sq) | 39 | 15 | 10 |
| Monads (1km sq) | 68 | 20 | 11 |

Well that wasn't rocket science. In fact anyone could do that on screen by setting the date ranges on an Atlas distribution map. It could also probably be run as a report in Recorder 6.

The question now is how this information fits with the IUCN criteria. Their list is a rather complex suite of multiple choices against each criterion but we can start at the lowest level of the formal criteria which is Vulnerable (RDB2) and one of the choices specifies a reduction of 50% over the last 10 years (decline in area of occupancy), so *Micropeza lateralis* is not as bad as that. Working down the list, examining the remaining levels, we have to turn to the descriptions of criteria in the UK reviews. Here we can determine that it is not close to vulnerable (RDB3) nor is it Data Deficient (RDBK) since we have the data. All we have left is Nationally Scarce (less than 100 x 1km squares). QED.

Darwyn Sumner

2016 Canterbury

Laurence Clemons has really been keeping on top of the incoming records for our Canterbury Field Week. Each time someone sends a batch of records in he works through them all meticulously, offers the occasional correction (maybe a typo or the odd older name) then produces a summary of the finds so far.

A recent summary (short version, there are more detailed ones to come) was on 23rd December when he provided the following:

2954 records for 717 species from 57 families from 92 monads in 26 hectads.

Agromyzidae (19, 23); Anisopodidae (2, 3); Anthomyiidae (23, 71); Anthomyzidae (4, 8); Asilidae (9, 41); Asteiidae (2, 4); Brachystomatidae (2, 8); Calliphoridae (13, 38); Canacidae (1, 1); Cecidomyiidae (2, 2); Ceratopogonidae (1, 2); Chamaemyiidae (3, 11); Chloropidae (26, 48); Clusiidae (3, 5); Conopidae (2, 5); Diastatidae (3, 4); Dixidae (3, 3); Dolichopodidae (121, 1028); Drosophilidae (4, 11); Dryomyzidae (1, 5); Empididae (25, 83); Ephydridae (57, 263); Fanniidae (5, 14); Heleomyzidae (4, 6); Heterocheilidae (1, 1); Hybotidae (19, 58); Keroplatidae (3, 3); Lauxaniidae (19, 81); Limoniidae (24, 45); Lonchopteridae (3, 58); Micropezidae (2, 2); Muscidae (53, 128); Mycetophilidae (3, 3); Opetiidae (1, 2); Opomyzidae (9, 59); Pallopteridae (1, 1); Pipunculidae (3, 4); Platystomatidae (2, 6); Psilidae (2, 2); Ptychopteridae (3, 5); Rhagionidae (4, 34); Rhinophoridae (3, 14); Sarcophagidae (15, 19); Scathophagidae (9, 36); Scatopsidae (1, 2); Sciaridae (2, 2); Stratiomyidae (25, 130); Syrphidae (73, 234); Tabanidae (9, 29); Tachinidae (16, 24); Tephritidae (22, 70); Therevidae (1, 2); Tipulidae (7, 14) and Ulidiidae (7, 28).

The collector/recorder data, with number of species and records are Howard Bentley (202, 392); Jann Billker (1, 1); Victoria Burton (11, 16); Peter Chandler (29, 41); Laurence Clemons (251, 406); Steve Crellin (6, 6); Andrew Cunningham (13, 19); Martin Drake (304, 997); Andrew Halstead (45, 109); Roger Hawkins (6, 8); Barbara Ismay (17, 23); John Ismay (3, 4); John Kramer (3, 3); Ken Merrifield (26, 44); Alan Stubbs (8, 8); Richard Underwood (145, 292) and Rob Wolton (320, 576).

25 species are "new" to my database of Kent Diptera - I must get out more!

Laurence Clemons (laurenceclemons56@gmail.com) Still a handful to come in but as you can see the work is coming along nicely. It's still many records short of the 3711 from last year. If you've yet to send records in, don't forget to send to both of us. The objectives are twofold, Laurence wants his full summary for the the Kent Field Club and to feed back to those people who were kind enough to grant permission to visit the sites and I've undertaken to publish records onto the NBN Atlas (by about April). So send your lists to both of us.

Darwyn Sumner (darwyn.sumner@ntlworld.com)

NFBR Newsletter

A number of interesting topics in the latest newsletter from NFBR (edited by Martin Harvey) from an announcement of the new Agromyzidae Recording Scheme through some interesting findings in the State of Nature Report and technical offerrings from Rich Burmar to news about what our LERCs are getting up to. Download it at http://www.nfbr.org.uk/?q=newsletters

iRecorders

A number of Recording Schemes have taken up iRecord since the Recorder meeting of 2004.

Martin Harvey summarised the take-up as follows:

- 1. Hoverflies
- 2. Soldierflies and allies
- 3. Tachinids
- 4. Calliphorids
- 5. Sepsids

6. Conopids (David is in the process of setting this up with BRC, don't think he's started looking at the records yet)

7. Stilt and stalk (Tanypezids & Micropezids)

8. "I note that you show the iRecord logo for the **Sciomyzidae** scheme on the Bulletin back page, but I don't think we've actually set you up to be a verifier for Sciomyzidae - let me know if you want that to happen." (*scheme organisers and assistants are currently debating this issue, wait until after the February workshop - ed*)

9. Agromyzidae (see Barry Warrington's announcement in this Bulletin - ed)

In addition, there are county or regional verifiers for Northern Ireland, Cumbria, Gloucs, Leics, Northants, Shrops and Sussex. These verifiers have access to all Diptera records for their geographical area, but what they actually choose to verify varies depending on their taxonomic interests (I don't think anyone claims to be able to verify all species for their area).

If other schemes wish to be set up on iRecord they would be very welcome of course, and BRC can get everything set up as required.

If any individual dipterist has added records to iRecord and is worried that they are not being picked up by the schemes, that individual has the option of downloading their records from iRecord into a spreadsheet format and submitting them to schemes in the normal way.

The other benefit to be gained by adding records to iRecord (even if they are not covered by an active scheme) is that the records do become available to LERCs, who have access to all records for their area (both verified and unverified). So the individual recorder shouldn't have to send their records to multiple places.

Martin Harvey

Experiences that the schemes have had with iRecord are largely positive. One possible exception is the Hoverfly scheme for reasons detailed in the current Hoverfly Newsletter (#62). For the rest of us it's a small trickle that's relatively easily dealt with and occasion-ally produces something of considerable interest.

For those using **NatureSpot**, all their records are automatically stored on the BRC server "*and are verified by a range of experts*" on the verification page of iRecord.

Conclusion

If you're a recorder keep them coming in, if you're organising a recording scheme then sign up, it doesn't commit you to doing anything but you'll at least see who is recording in your group and you might make contact with enthusiasts you weren't aware of.

Recording Schemes should also be aware that they can upload subsets of their own data to iRecord and then verify their own material. This might seem a bit daft but we've lots of Red Data species not on the Gateway/Atlas, putting those on the Atlas will be a huge step towards conservation. Several of us have already uploaded such records.

Darwyn Sumner

Regional

Patch-work in the Cambridgeshire Fens (VC29)

The Fenland region of VC29 has some well-established NNRs including Wicken Fen and Chippenham Fen. Both of these reserves have been exceptionally well-studied for invertebrates over many years and have impressive lists of over 450 fly species. However, there has been much less recording of Diptera in fenland outside these reserves in the past 20 years. Recording in the Ely area in the last two years suggests that there are still plenty of opportunities for finding scarce species and for undertaking interesting studies of fenland fly ecology, particularly of ditch communities.

Ely city (population 15,500) is perched on an outlier of Lower Cretaceous greensand surrounded by fenland overlying Middle/ Upper Jurassic clays. The fens in this area are a mosaic of grazing marsh and cultivated fields, with extensive ditch connectivity that provides vital refuges for invertebrates in an intensively-farmed landscape. The River Great Ouse runs along the eastern edge of the city. The margins of the city are under constant pressure from land development (housing, retailing outlets, warehouses, a proposed straw-processing depot). There is a local SSSI (Roswell Pits, 86 hectares) that has a wide variety of habitats including meadows, water meadows, grazing marsh, deciduous woodland, scrub, ditches, lakes, riverbanks and reed beds. The wildlife of the SSSI is monitored by the Beds-Cambs-Northants Wildlife Trust and Ely Wildspace in partnership with the Environment Agency and Natural England.

Having spent just two consecutive years (2015 and 2016) recording Diptera in and around the Ely area, mostly focused on Syrphidae, it is surprising what gems can be found with weekly recording over five local patches. For example: three Nationally Scarce hoverflies (*Anasimyia interpuncta*, *Myolepta dubia*, *Triglyphus primus*), as well as good numbers of four *Chrysotoxum* species, double figures of *Volucella zonaria* and *V. inanis*, and 10 species of soldierfly, including RDB2 *Odontomyia ornata* (1st and 2nd records for VC29). Two specimens of *Odontomyia ornata* (1m, 1f) were found in 2016, perhaps suggesting a recent incursion inland or, possibly, an overlooked population in the Ely area. Two hoverflies recorded at Ely, *Paragus haemorrhous* and *Rhingia rostrata* (1st for VC29), are not on the Wicken or Chippenham Fen lists. The Ely hoverfly list amassed in 2015+2016 is currently 88 species. The Diptera species list is at 147.



Myolepta dubia (female) Ely 03/07/16 [Mark Welch]

We have yet to tackle the more challenging fenland fly families in a systematic way (empids, dolichopodids, sciomyzids,

scathophagids, chloropids and Nematocera), but 2017 will see a concerted effort to record Diptera for the Roswell Pits SSSI as part of the *Ely Wildspace* Big Year, which is a baseline recording project aimed at accruing well-documented data for species (plants, fungi, animals) and their distributions, habitats and numbers throughout the year. The Big Year will form the foundation of future systematic regular surveying and monitoring in the Ely area to provide the foundation for biological recording in future years that will promote habitat improvement and conservation.

It would be great if some DF members could join us for a weekend of intensive Diptera recording in July (date tbc). I will publicise the date soon via the DF website and Facebook (Hoverflies and Diptera FB sites).



Odontomyia ornata (male) Ely 29/05/16 [Mark Welch] Mark Welch, 32 Tennyson Place, Ely, Cambs CB6 3WE.

Identifications from images

Following the release of iRecord the topic of the accuracy of identifications from images has been under constant debate. Set oneself up as a verifier on iRecord and one of the first messages you want to get across is the low proportion of photographs and even lower number of taxa that can be succesfully identified from even good photographs. Experiences in this regard vary considerably, the Hoverfly Scheme gets such a high error rate on iRecord that for them iRecord isn't a good use of their time except for recording people (i.e. spotting new recorders.) Other schemes with far fewer submissions have a somewhat variable experience with this, both Martin Harvey and Roger Morris making comments about it in the Bulletin 81 Recording Status Review. I'm a latecomer to iRecord but reckon only a couple are feasible by photographs. I get things like "Psilidae" and a blurry photo - apologies to those who've tried that, it's simply not ever going to get an answer as it's not doable. Keep trying though, if you take up specimen collecting or happen across the first Rainieria calceata in the New Forest or Micropeza lateralis in one of its old haunts then I'll be delighted and you'll get a tick. Check Diptera.info or Le Monde des Insectes to see the kind of photograph quality required to identify these.

Identification sections on our Dipterists Forum Forum and on Diptera.info seem to have a different experience. Successful naming here seems fairly good but then it does operate rather differently with many users being prepared to go into detail about their material, catch specimens, describe features and even rephotograph using macro and microscopes. It's a different system altogether, not geared up to capture lots of records (well, actually not set up to capture any records) but with a reasonably high success rate. Special praise to Le Monde des insectes, they seem to require basic record data for anyone posting a photo; of the three this is the site which makes a contribution to recording by facilitating the posting of the four "W"s that make up an occurrence.

https://www.insecte.org/forum/

My reason for all the above is that there has been a recent study on species identification from images. Thanks to **Nature** again with their Open Access special reports and to workers at the University of Kent who must have been preparing all this whilst we were on our Field Week there:

Austen GE, Bindemann M, Griffiths RA, Roberts DL. 2016. Species identification by experts and non-experts: comparing images from field guides. Sci Rep [Internet] 6:33634.

Available from: http://www.nature.com/articles/srep33634

Some interesting figures in here, experts with field expertise averaged 97% accuracy, but for those whose expertise came from books only 75% accuracy was achieved. Neither are good, 3% misidentified is unacceptable to any of our recording schemes (the authors' work was on bumblebees though, not Diptera.) I liked the bit on "experience and matching accuracy" where we're told that "*This suggests that the more experienced observers were less likely to commit to a correct or incorrect identification decision.*" Safe not to accept blurry iRecord photos then.

Darwyn Sumner

There's also a detailed study of identification from photographs linked in the current Hoverfly Newsletter. Roger Morris, Stuart Ball, Ian Andrews, Joan Childs & Ellen Rotheray are doing an annual analysis, the main source of images seems to be via the Facebook group.

Also in Fly Times, read *Confirmatory bias and photographing the difference* by Peter Cranston & Dan Bickel in #55.

DIY Lab Widgets

At the 2016 Dipterists Meeting at the NHM, I showed devices that I'd made to lessen entomological chores. These were a hotplate for macerating specimens, a holder for viewing specimens from most angles, and a large pinning block for mass staging of micro-pinned specimens.

The hot-plate was based on the Mike Ackland's idea of using a lamp to warm jelly for temporary slide-mounts of genitalia (2015, Bulletin of the Dipterists Forum No 80, 15-16). I made a box in which a 40W halogen lamp was mounted upright, operated by a toggle switch (see photo). The lamp's surface is flat and 50mm in diameter (cost c. £4). The water bath is a 5ml glass tub (21mm diameter, 24mm tall) which is half-filled with water (2ml) and the specimen container is a 1ml neoprene tube with a few drops of 10% potassium hydroxide. A hole in the plastic cap of the water-bath tub keeps the tube upright and reduces evaporation. The tube has a loose-fitting lid. The water takes 31/2 minute to boil, after which the lamp is turned off and the specimen checked for clearness. This fast procedure overcomes the lassitude that sets in when a large water bath has to be rigged and warmed up. I also use it for Mike's jelly-mounts. Aluminium foil with a tub-sized hole in the middle covers the lamp's surface to reduce glare. I suggest that covering the whole surface and the open box (to stop water dribbling into the works) is a bad idea as it doubles the time to boil and, without the lamp being visible, it would be easily forgotten so the whole caboodle would boil dry and burn - end of precious specimen.



My viewing stand lets me rotate a specimen in any plane so I can see it from most angles and it remains in the field of view and in focus with minimum adjustment. I use it to hold pinned specimens stock still when drawing with a drawing tube, for measuring with an eye-piece graticule, and for seeing obscure characters at high magnification when a shaky hand can make these difficult to see. No doubt photographers may find it useful too.



It's all very Heath Robinson, made from scraps in the workshop. It has two L-shaped wooden arms mounted on an upright stem, articulated at their ends using bolts, and a twiddling knob that lets both arms be twisted by one set of fingers. The specimen sits on a base that can be rotated. As the specimen is placed roughly where all the axes converge, I have to have two versions – a large one for specimens staged on a long pin and a smaller one for specimens on a micropin alone. I find that specimens on their plastazote stage can drift slightly when left for while, for instance, during the time it takes for detailed drawings, and presumably this is due to temperature changes swelling the plastazote's cells, so when drawing I use the small version in which the micro-pinned specimen is pinned to a cork base. The figure shows both versions, with the larger one 'at rest' to give some idea of dimensions. I don't remember where the idea came from but it's unlikely that I can patent it.





It's tempting to collect far too many specimens in those convenient plastic boxes but at the season's end one faces the tedious task of staging them with their labels. I abandoned conventional one-ata-time pinning blocks and instead made a large pinning stage 130 x 80mm with a top of 3mm stiff polystyrene foam, such as used in pizza packaging, supported on a shallow wooden box. The front half has a depth of 20mm from the foam to the bottom of the box, and the rear half has a depth of 15mm. Along the front I line up about 30 plastazote stages on their pins, all at a depth of 20mm, and put the micro-pinned specimens in place, with their det label nearby. The locality labels are spread out on the back half of the block and these are very quickly stabbed to the correct depth by each newly staged specimen. There's no need to find the tiny hole in the conventional pinning block, and the whole process takes just a few seconds. I've not timed it but I'd guess it averages much less than 1 minute per specimen, from beginning to end. When the foam is too full of holes, buy another pizza and replace it.

Martin Drake

Using Genitalia Vials

I know this isn't of interest to everyone – some of you haven't discovered the delights of fly genitalia yet, others are quite content to mount all their preps in DMHF resin, but there are occasions when keeping genitalia in glycerine has its advantages. At these times, using genitalia micro vials is the safest way of keeping the fly and its bits together. They're not particularly cheap – 19 euros for 100 (I get mine from Paradox Entomology), but they are well made and relatively easy to use.

I pre-load a dozen or so each with 4 drops of glycerine dispensed from a syringe with a fine hypodermic needle. They are stored in a small clear polystyrene box with a plastozote base drilled with holes to store them upright. The box lid is the important bit as it keeps the glycerine free of dust and fluff until the vials are needed.

Having cleared (in KOH) and neutralised (in Acetic Acid) and washed (in distilled water) the genitalia, they are then transferred to glycerine for 15 minutes to get rid of the water. From there they can be carefully transferred to the genitalia vials.

The silicone stoppers of the vials are a tight fit, which can present problems. Often pushing in the stopper simply compresses the air inside the vial, so that the stopper is simply pushed out again. To avoid this, a pin can be slid down the side of the stopper while it is pushed in, then the pin is removed and the stopper stays in place. Recently I have been using a hypodermic needle (see picture). The needle is first pushed through the stopper, then the stopper is pushed into place, then the needle removed. The silicone seals itself and the stopper is firmly held.



There are alternatives to commercially produced microvials – clear pvc tubing can be cut to length and heat-sealed with forceps or pliers after warming in a lighter flame. Or the tube can be sealed with short lengths of pvc rod.

I don't advocate using vials for every fly – I use them for rarities or specimens that I am dissecting for comparative studies. Day to day vouchers that have been dissected usually end up with genitalia preps on cards in DHMF resin. I pre-print sheets of several hundred cards labelled with "water-soluble DHMF resin". By using these cards, I hope that other workers examining my preps in the future will not be puzzling over the mounting medium!

Tony Irwin

Conservation

News from the Conservation officer

Conservation officer vacancy

Now that I've been elected to the role of Chairman, the Conservation Officer post on committee is vacant. If you are at all interested in filling it, please do contact me. There's no job description, you can pick and chose where to become involved according to how much time you have, your own interests and where you feel the Dipterists Forum can add most value. I've found it a most fulfilling role: it's given me the opportunity to learn not only a whole lot more about Diptera and their conservation but also to become familiar with the work of our society and how it functions.

My thanks to those who have helped and guided me since I took on the role in 2011, when I first joined the committee. I am particularly grateful to all species adopters, guardians and leads, to my predecessor Barbary Ismay and to Alan Stubbs. It's been a great pleasure working with you and learning about rare and threatened flies and their habitats.

The importance of easily accessible records

Last autumn I was alerted to damage to a quarry near Tomintoul in the Cairngorms National Park. A wet area close to the quarry face had been drained as part of the work to create a new car park. This area consisted of sparsely vegetated lime-rich mud fed by highly calcareous seepage water and had been known to support a rich assemblage of specialised Diptera, including some threatened species. I contacted both the National Park Authority and Scottish Natural Heritage, and received helpful replies from both, with undertakings not to consent to any further damage to the site. They explained that they had been entirely unaware of the conservation significance of the area, as had the land owner. Record searches in the local biological recording centre and elsewhere had not revealed anything of interest.

The case highlights the importance of ensuring that our records make their way to record centres, whether it be to the National Biodiversity Network, to local record centres or preferably both. We can hardly expect developers, planners and land managers to recognise specialised Diptera habitats and take action to safeguard them in the absence of relevant biological records. This is especially true now that local government ecologists are a rare breed and in these times of austerity. Local government budgets to employ consultant entomologists are low or non-existent, especially where sites are not recognised as SSSIs.

So, please, if you don't already do so, may I urge you to ensure your records are made available to the likes of developers, planners and land managers through ensuring they reach widely used record centres? To put it bluntly, records held in private databases, however diligently maintained, have little practical use.

My thanks to Buglife for taking up the Tomintoul quarry case to ensure the best possible outcomes, including hopefully some habitat restoration.

Flies at risk of extinction

Recently Natural England circulated a report listing all those species they consider more likely than not to be lost from England by 2020 unless urgent action is taken. There were 361 species of

plant, animals and fungi on this list, of which 44 were Diptera. On behalf of our society and with the advice of experts amongst us, I provided some comments on the Diptera and Natural England said they would amend the list accordingly. One outcome of this exercise may be that the current list of Section 41 species (formerly known as priority England Biodiversity Action Plan (BAP) species) is expanded. In any event, hopefully the species listed will become the focus of recovery projects and benefit from any extra resources that may be found.

I thought it might be helpful to present the amended list (now numbering 41 species):

Asilidae Neoitamus cothurnatus (Meigen, 1820) Chloropidae Polyodaspis sulcicollis (Meigen) Chyromyidae Aphaniosoma propinguans Collin Clusiidae Heteromeringia nigrimana (Loew) Conopidae Myopa occulta Wiedemann in Meigen, 1824 Conopidae Sicus abdominalis Kröber, 1915 Dolichopididae Acropsilus niger (Loew, 1869) Dolichopididae Campsicnemus umbripennis Strobl, 1899 Dolichopididae Cyrturella albosetosa (Strobl, 1909) Dolichopididae Dolichopus mediicornis Verrall, 1875 Dolichopididae Dolichopus melanopus Meigen, 1824 Dolichopididae Ortochile nigrocoerulea Latreille, 1809 Dolichopididae Rhaphium pectinatum (Loew, 1859) Empididae Hormopeza obliterata Zetterstedt, [1838] Limoniidae Dicranomyia frontalis (Staeger, 1840) Limoniidae Dicranomyia pauli Geiger, 1983 Limoniidae Dicranomyia stylifera Lackschewitz, 1928 Limoniidae Gnophomyia elsneri Starý, 1983 Limoniidae Gonomyia hippocampi Stubbs & Geiger, 1993 Limoniidae Helius hispanicus Lackschewitz, 1928 Limoniidae Idiocera sexguttata (Dale, 1842) Limoniidae Rhabdomastix inclinata Edwards, 1938 Muscidae Helina annosa (Zetterstedt, [1838]) Oestridae Gasterophilus nasalis (Linnaeus, 1758) Oestridae Gasterophilus pecorum (Fabricius, 1794) Pallopteridae Eurygnathomyia bicolor (Zetterstedt) Pipunculidae Eudorylas restrictus Coe, 1966 Platypezidae Callomyia elegans Meigen, 1804 Stratiomyidae Odontomyia hydroleon (Linnaeus, 1758) Stratiomyidae Stratiomys chamaeleon (Linnaeus, 1758) Strongylophthalmyiidae Strongylophthalmyia ustulata (Zetterstedt) Syrphidae Chrysotoxum octomaculatum Curtis, 1837 Syrphidae Chrysotoxum vernale Loew, 1841 Syrphidae Paragus albifrons (Fallén, 1817) Tabanidae Atylotus plebeius (Fallén, 1817)

| Tabanidae | Hybomitra lurida (Fallén, 1817) |
|-------------|--|
| Tabanidae | Hybomitra solstitialis (Meigen, 1820) |
| Tabanidae | Tabanus bovinus Linnaeus, 1758 |
| Tephritidae | Campiglossa grandinata (Rondani, 1870) |
| Tipulidae | Nephrotoma sullingtonensis Edwards, 1938 |
| Tipulidae | Tipula mutila Wahlgren, 1905 |

More species guardians or leads please

Few of the species listed above currently have nominated people keeping an eye on them, as either species guardians or lead contact points, as far as I know. Those that do are *Gnophomyia elsneri* (Alan Stubbs), *Idiocera sexguttata* (Mark Winder), *Odontomyia hydroleon* (Ian Andrews), *Stratiomys chamaeleon* (Judy Webb) and *Chrysotoxum octomaculatum* (Chris Spilling). Would you be interested, please, in taking on such a role for one of the other species? This could mean keeping a track of recent records, or, if you wish to go further, encouraging surveys and favourable site management. Please let me know.

Do note that the list is of species in danger of extinction in England, not necessarily in the British Isles. Some of them may, for example, be fairly frequent in Scotland.

For my part, I shall undertake to be the lead contact for *Rhaphium pectinatum*, having had the good fortune to re-discovered it in 2015 in Devon. Martin Drake, Andrew Cunningham and I searched for it last year without success at the site near Exeter where it was found, so we still cannot say anything about its favoured habitat. I am pinning my hopes on the main emergence period being earlier in the year than we've been looking to date.

There are also quite a number of UK Biodiversity Action Plan (BAP) species (a convenient shorthand for those species listed as being of principal importance for the conservation of biodiversity in various bits of legislation in the four UK countries) which are not on the above list (but still at risk) and which as yet no one has adopted or offered to be a guardian for. They include the Golden Hoverfly *Callicera spinolae*, the Phantom Hoverfly *Doros profuges*, the Southern Silver Stiletto-fly *Cliorismia rustica* and the Phoenix Fly *Dorycera graminum*, all really interesting species. Any takers?

Status reviews

A Provisional Assessment of the Status of acalyptratae flies in the UK was published by Natural England on 1 December 2016. Well done to John Ismay, Peter Chandler, Steven Falk and David Heaver. If you carry out a web search using the title you can download the PDF. The report is based on text submitted as far back as 1995, but subsequently updated a number of times, most recently in 2016. Species status has been assigned using IUCN criteria, but since the data used have not met the strict requirements for a formal IUCN review, have the prefix p to indicate that this is a provisional assessment. Nevertheless the report contains a wealth of information that should do much to assist with the conservation of those species assessed as threatened.

The assessment does not cover Conopidae, Sciomyzidae or Tephritidae since these were covered in an earlier review written by Steven Falk in 1991. Hopefully these three families will have an updated review or assessment before long. The remaining 38 or so acalypterate families covered in the assessment contain 1,366 species, some 17% of our Diptera fauna.

Of these 1,366 species, 5 are considered pExtinct, 1 pCritically

Endangered, 7 pEndangered and 23 pVulnerable. Thus 36 species, less than 3% of the fauna, are considered threatened but it should be noted that as many as 65 species are rated Data Deficient reflecting low levels of recording for many families. A further 17 are provisionally classified as pNear Threatened while 130 are pNationally Scarce.

The pCritically Endangered species is the chloropid *Polyodaspis sulcicollis* (a species we found at Dungeness during the 2016 summer field meeting). This is included in the list of species at high risk of becoming extinct in England unless urgent conservation action is taken. Perhaps the other acalypterates on this list which are in families covered by the assessment should also be considered Critically Endangered? They are *Aphaniosoma propinquans*, *Heteromeringia nigrimana*, *Eurygnathomyia bicolor* and *Strongylophthalmyia ustulata*, all currently classified as pEndangered.

UK BAP & **Adopt a species** Species news from fly guardians (adopters) and BAP species contacts

My thanks to Iain MacGowan and Judy Webb for their reports below. *Stratiomys chamaeleon* is one of the Diptera species considered to be at high risk of extinction in England by 2020 unless appropriate conservation management is taken, so many thanks indeed to Judy for leading on habitat improvement and for highlighting the problems with water quality. Likewise, it is very good to know that work continues to survey, monitor and conserve populations of two very rare hoverflies, *Blera fallax* which is Critically Endangered and *Hammerschmidtia ferruginea* which is Endangered, both known in the British Isles only in Scotland.

Stratiomys chamaeleon, Clubbed General Soldierfly, and Odontomyia angulata, Orange-horned Green Colonel Soldierfly

by Judy Webb

In the autumn and winter time my focus has been on thinking about the best habitat management work in Cothill Fen SAC for the breeding success of these flies, in particular the larval habitat. The larvae filter feed on bacteria or unicellular algae and protozoa in mud or waterlogged moss mat in calcareous sunny shallow pools or runnels. They are amphibious and crawl about on wet mud and vegetation, especially at night. Short, warm, wet vegetation is essential for speeding larval growth which takes at least a couple of years. With Natural England's agreement and the hard work of myself and other volunteers from Abingdon Green Gym, the NNR portion of the SAC has continued to have scrub and tree removal on fen margins to increase the useful breeding area of short fen rush and sedge vegetation. Dense reed has been cut and raked twice yearly to reduce its dominance and bring back a greater biodiversity of short fen rare plants. From the flies' point of view, the rare plant species are not essential, the need is for calcareous shallow warm runnels with or without Chara stonewort algae and 'brown mosses' between the tussocks of black bog rush or greater tussock sedge. Reduction of rank reed, rush and sedge has been achieved not only by cutting and raking, but also by the grazing activities of five Welsh mountain ponies belonging to the local wildlife trust which now run freely between the Cothill NNR fen and the adjacent Parsonage Moor fen part of the SAC. This latter site is managed by the Berks, Bucks and Oxon Wildlife Trust and also has extensive reed and rush cutting and raking by their volunteer crew. The ponies were grazing on both sites between

June and December and as I write in early December have just been removed to their winter quarters. The fen will be ungrazed all spring and early summer.



Stratiomys chamaeleon habitat, PM peat cut low nutrient moss marly chara shallow runnels [Judy Webb] 07 05 2010



Stratiomys chamaeleon habitat, Pool next to NNR enriched nettles duckweed [Judy Webb] 06 04 2012

A concern at both places recently has been observations that the site in general is becoming drier and also there is nitrate enrichment of some pool/runnel areas within the SAC resulting from fertilizer run-off from adjacent arable fields (barley and maize cultivation). Blocking up some drainage ditches would achieve useful re-wetting, but this is not yet possible as most marginal ditches that might be usefully blocked have elevated nitrate levels. The soil on the surrounding higher cultivated areas is dry and sandy, thus nitrate leaching happens extensively from this very leaky soil. The farmers nearby are not breaking any rules in their fertilizer applications and it has not been possible to achieve buffer zones or conservation margins as they do not want to enter into the Higher Level Stewardship option. This rare alkaline calcareous fen ecosystem is dependent on very high calcium and pH and very low phosphate and nitrate in the groundwater emerging from springs to produce the marl pools and tufa formation on the mosses which benefits the rare wetland plants and the rare wetland invertebrates. Nitrate in particular should be at a level of less than

1ppm, and ideally less than 0.5ppm in the emerging spring water. Areas with these desirable low levels are becoming rarer according to my studies over the last year with the simple Citizen Science test kits for N & P available from the Freshwater Habitats Trust. High nitrate-contaminated springs, pools and runnels are botanically recognisable by the change from stonewort algae and brown mosses to dark green filamentous algae, duckweed, watercress and nettles. It is suspected (but unproven) that these enriched wetland areas are disadvantageous to larvae of the rare soldierflies, as these favour Chara pools and tufa-forming brown moss areas. Last year saw a comprehensive hydrological/ecological report on the whole area and this next spring will see a detailed water chemistry study of the NNR/Parsonage Moor section. The results from both these studies will hopefully give some practical recommendations to achieve reductions in the nitrate contamination. The barley field behind the NNR section is scheduled for sand extraction (carefully, down to 1 metre above the water table) within the next 5 years, so there will be an end to the fertilizer input in this area at least in the near future.

I continue to maintain soldier fly larvae of various ages in aquaria with marly pool mud and stonewort algae on my windowsills for study of larval feeding and other behaviour. Observations will be written up for publication this winter.

Blera fallax, Pine Hoverfly

by Iain MacGowan

A successful larval identification training day was held at one of the core sites in May with some 12 people in attendance from a range of voluntary groups as well as a few local volunteers. With an ID sheet prepared by the Cairngorms National Park we were able to identify the various syrphid larvae found in the cut stumps - including numerous *Myathropa*, some *Callicera rufa* but also a few *Blera*. This allowed comparisons to be made in the field and the group went away confident that they could distinguish between the species. It is hoped that next year this group can undertake the routine monitoring at the managed sites. The National Park has also been able to provide a small amount of funding to allow us to create more cut stumps and improve and manage the current stumps at the key sites over the coming winter. As ever we wait for *Blera* to respond to this management effort!

Hammerschmidtia ferruginea, Aspen Hoverfly

by Iain MacGowan

The main effort during the summer was centred on the aspen stands along Loch Ness - at some distance from the core sites along Strath Spey. *Hammerschmidtia* was re-found at this site during spring 2016 after not being recorded for more than a decade. Coille Alba with support from the Malloch Society has carried out a full survey of the aspen resource in the area and has found that there are more than 200 large trees present, substantially more than was previously thought. The survey report has now been passed to Forestry Commission Scotland who own the site and who have expressed an interest in positively managing the aspen resource.

On 24th November the Environment Minister Roseanna Cunningham announced that beaver populations in Argyll and Tayside will be allowed to remain and expand their range naturally. Whilst this is not of immediate concern to the large aspen stands further north it is a reminder that beavers are on their way back and that we should be planning now for ways to mitigate their impact on the nationally important saproxylic Diptera populations which depend on these trees.

Rob Wolton

News from the regional groups Devon Fly Group

It has been an enjoyable and productive year for the Devon Fly Group in 2016 which kicked off as usual with an informal indoor meeting at Woodah Farm (Devon Wildlife Trust) early in March where several members contributed presentations and identifications were also discussed. This regular fixture serves well to provide a chance to meet up during the winter season as well as discuss the forthcoming field season in which meetings were held once a month from April to October.

In April, Jackie Gage guided us around the Devon Wildlife Trust's Warleigh Point reserve on the Tamar Estuary just outside Plymouth. Despite being a bit chilly, we did well enough to produce 189 records of 100 species of diptera. Some of the scarcer species found on the day were *Syntormon macula* (Dolichopodidae), *Tricyphona schummeli* (Pediciidae) *Hilara brevistyla* (Empididae), *Lispocephala pallipalpis* (Muscidae) and *Eurina lurida* (Chloropidae). Two species that are probably new to Devon were discovered, *Bibio nigriventris* (Bibionidae) and *Egle minuta* (Anthomyiidae).



Warleigh Point 15th April 2016 [Andrew Cunningham]

The weather was a lot kinder for our May field meeting at the species rich site of Braunton Burrows in North Devon. Apparently, the 10km square within which Braunton Burrows sits is the most species-rich in the UK for all wildlife. Our target was Pamponerus germanicus (Pied-winged Robberfly) which was last recorded here on 30th May 2000. We did not find it despite our best efforts but did enjoy a fantastic day in clocking up 387 records of no less than 185 species of diptera! As expected, there were lots of scarce flies in those records and listing them all would take up too much space. A few of them were Coenosia flavimana & C. stigmatica (Muscidae), Aphrosylus mitis (Dolichopodidae) and Policheta unicolor (Tachinidae). One species we had all hoped to see obliged, which was the tiny bee fly, Phthiria pulicaria (Bombyliidae). Thanks to an excellent key by Daniel Whitmore, there were nine species of Sarcophagid recorded with the scarcest being Metopia staegerii. Martin Drake had a specimen of Hydrellia (Ephydridae) that will prove to be new to Britain once its identity has been clarified.



Braunton Burrows - Aspen Slack 28th May 2016 [Andrew Cunningham]



Devon Fly Group, Braunton Burrows, May 2016, [Rob Wolton]

The group converged on the East Devon coast for the June meeting, starting with an inspection of the cliffs at Axmouth before proceeding to the active coastal landslips at Ware Cliffs close to the Dorset border. This small chalky corner of Devon is a rare substrate in this county and duly provided many interesting species we do not often come across. As things stand at the moment, the provisional results for this meeting involves 372 records of 187 species. As with Braunton Burrows, there were too many excellent records from the East Devon coast to name them all. Some rarer craneflies found on this day were Dicranomyia goritiensis, Idiocera sexguttata, Orimarga juvenilis, O. virgo, Gonomyia conoviensis & Arctoconopa melampodia (Limoniidae). However, the star of the show was Helius hispanicus (Limoniidae) from the cliff seepages at Axmouth. This is the only site in the UK for this very rare species. Soldierflies featured prominently and were much admired such as Oxycera pardalina, O. pygmaea O. rara & Vanoyia tenuicornis. Other noteworthy records included Hercostomus plagiatus & Melanostolus melancholicus (Dolichopodidae), Chyliza vittata (Psilidae), Herina oscillans (Ulidiidae), Parochthiphila spectabilis (Chamaemyiidae), Eggisops pecchiolii (Calliphoridae), Lipara rufitarsis (Chloropidae) and Acanthiophilus helianthi (Tephritidae) whilst Hilara platyura (Empididae) was a new species for Devon.



Pogonota barbata, Raybarrow Pool, Dartmoor, 16 July 2016, [Rob Wolton]

The group spent a fabulously sunny day at Throwleigh Common and Moortown Bottom on Dartmoor in July to explore some higher ground and floating bogs in the hope of seeing the rare dung fly, Pogonota barbata. We were fortunate enough to see plenty and had the privilege of being able to watch and photograph them at leisure. All in, the wide open spaces of Dartmoor yielded 481 records of 177 species of diptera. With regards to the Devon fauna, some notable finds included Campsicnemus alpinus, C. compeditus, Hydrophorus albiceps, Chelipoda albiseta, Hilara angustifrons, Wiedemannia insularis, Syndias nigripes, Dicranota exclusa and Phylidorea abdominalis. A few muscids with no dots for Devon on the NBN Gateway were swept, such as Coenosia distinguens, C. trilineella, Pseudocoenosia solitaria and Azelia gibbera. Other nationally scarce or notable species came in the form of Epichlorops puncticollis (Chloropidae), Pseudopachychaeta ruficeps (Chloropidae), Tachytrechus consobrinus (Dolichopodidae), Sapromyza albiceps (Lauxaniidae) and Tipula yerburyi (Tipulidae). An interesting hoverfly found at these higher altitudes of Devon was Platycheirus perpallidus, which is an upland species with a predominantly northern distribution in the UK as well as parts of Wales.



Throwleigh Common 16th July 2016 [Andrew Cunningham]



Axmouth - Haven Cliff 18th June 2016 [Andrew Cunnungham]

The weather turned foul for the August field meeting set up by Geoff Foale at South Milton Ley in the South Hams. We were forced to delay it by a day and still only managed a half day of action but it was enough to show the potential of the location with other satellite sites in the immediate vicinity. Despite strong winds and occasional rain that soon persisted and curtailed the day early, six of us managed to make 425 records of an impressive 201 species thereby setting the highest species count for the year. There are still some specimens to be identified at the time of writing. The vast majority of these were commoner species and according to various status reviews, the rarities were Rhamphomyia caliginosa (Empididae), Chorisops nagatomii (Stratiomyidae), Syntormon mikii (Dolichopodidae) & Pherbellia knutsoni (Sciomyzidae). As has become the theme this year, Sarcophagidae were well recorded with eight species. These were Sarcophaga agnata, S. anaces, S. crassimargo, S. filia, S. melanura, S. nigriventris, S. sinuata, and S. subvicina.

Hense Moor in the Blackdown Hills was the venue for the September meeting. It was well attended and Jan Bissinger was welcomed to the group as a new member. Currently, the results show that 234 records of 148 species were clocked up. A few scarce and notable species were found in the woodlands and acid mires, including *Lispocephala verna* (Muscidae), *Lasiochaeta pubescens* (Chloropidae), *Dixa maculata* (Dixidae), *Psacadina verbekei* (Sciomyzidae) and the impressive fungus gnat, *Keroplatus testaceus* (Keroplatidae). However, the star of the show was discovered later in the year as a female Anthomyiidae specimen was sent to Michael Ackland and identified as *Pegomya vittigera* which apparently has never been found outside of Scotland!

The final field meeting of the year's programme was held jointly with the Devonshire Association at Dartington Hall. Martin Luff was our guide for the day and showed us a large decaying Ash stump within parkland before dropping down to a footpath alongside the River Dart. Sweeping around some Dryad's Saddle on the aforementioned Ash stump scored a good number of species including *Clusia tigrina*, *Clusiodes gentilis*, *C. albimanus* (Clusiidae), *Philygria stictica* (Ephydridae) and *Agathomyia unicolor* (Platypezidae). John Day joined us from the DA on this cool and damp session and his interest in leaf miners offered a welcome boost to our numbers, which came to 116 records of 84 species. Besides the aforementioned species, a few other notable records were *Pegomya seitenstettensis* (Anthomyidae), *Drosophila picta* (Drosophilidae) and *Campsicnemus pusillus* (Dolichopodidae).



Helius hispanicus, female, Haven Cliffs, Axmouth, 18 June 2016, [Rob Wolton]

Membership of the Devon Fly Group is open to anyone who wishes to join and there is a simple registration process by way to asking Andrew Cunningham (ajc321@hotmail.com) to join the Yahoo Newsgroup. All communications of noteworthy items, field meetings, etc.. are posted to all members' email accounts via this platform. Devon is a popular holiday destination so even if you are only here for a week or so, you will always be very welcome to join us for the day.

Andrew Cunningham

Members

Membership Matters

By end of November 2016 we had 366 paid-up members of Dipterists Forum and 323 subscribers to Dipterists Digest. This is up a bit on last year's subscriptions. So far in 2016, 33 new members have joined. This is very encouraging for the continuity of the society. We have asked on the application form for new recruits to let us know where they heard of us. This has had a limited response but undoubtedly the programmes of workshops that various members have run round the country has been an important source.

I do urge all members to keep up to date with subscriptions, which fall due on 1st January each year. I am happy to answer any email queries about subscriptions if you are not sure you have paid. Our policy is to stop distributing the Bulletin and Digest after the Spring Bulletin to anyone who is not up to date with subscriptions.

All subscriptions, changes of address and membership queries should be directed to John Showers at:

103, Desborough Road, Rothwell, KETTERING, Northants, NN14 6JQ Tel.: 01536 710831 E-mail: showersjohn@gmail.com

Membership & Subscription Rates for 2016+

Members and Subscribers are reminded that subscriptions are due on 1st January each year. The rates are as follows:

UK

Dipterists Forum: £8 per annum. This includes the Bulletin of the Dipterists Forum.

Dipterists Digest: £12 per annum.

Both of above: £20 per annum

Overseas

Dipterists Forum and Dipterist Digest: £25 pa.

There is only this one class of membership. Payment must be made in Pounds Sterling.

Cheques should be made payable to "Dipterists Forum".

BANKERS ORDER PAYMENTS

You can set up a banker's order or bank transfer to pay the subscription via online banking using the following details:

Dipterists Forum

NatWest Bank

Sort code 60-60-08

Account no. 48054615

Please add your name to the payment reference or we will not know from whom the payment was made.

Alternatively you can send your bank the banker's order mandate form, which can be found on the DF website. This form explicitly states that it cancels previous payments to Dipterists Forum.

John Showers

Review

Books

Tomorrow's Biodiversity

Reemer, M. & de Jong, H. 2016. De Nederlandse breedvoetvliegen en basterdbreedvoetvliegen (Platypezidae & Opetiidae). Entomologische tabellen 10. Supplement bij Nederlandse Faunistische Mededelingen. 134 pp., paperback. ISSN 1875-760X.

This is the tenth volume and second on Diptera to appear in this well-produced series of key works to the Dutch insect fauna. The previous dipterous volume on Tephritidae was published in 2010 and was reviewed by Alan Stubbs in Bulletin No. 70 (Autumn 2010, pp 12-13).



While the Dutch fauna is the primary concern of this work, all species known from surrounding countries are also included in the keys, which cover 42 species of Platypezidae and the single species of Opetiidae. All species known from the British Isles, Belgium, Germany and Denmark are keyed. Twelve species were newly recorded from the Netherlands during the authors' studies, bringing the Dutch platypezid list to 36 species. British species yet to be recorded there are *Microsania pallipes* and *Platypeza aterrima*, while they have four species not yet recorded here – *Agathomyia alneti*, *A. elegantula* (in the revised sense), *Kesselimyia chandleri* and *Lindneromyia hungarica* (species to look out for). The additional species keyed that are so far absent from both national lists are *Microsania capnophila*, *Agathomyia vernalis*, *A. zetterstedti* and *Polyporivora boletina*. The cover photos are a

female of *Agathomyia alneti* and a male of *Platypeza hirticeps*; *A. alneti* resembles our *A. woodella* in colour pattern but tergite 5 is all dark, while it is grey dusted and dark only laterally in *A. woodella*.

In common with Tephritidae and other volumes in this series the text is in Dutch, and also like the tephritids Dutch vernacular names are proposed for all species, ending in "breedvoet" for all species of Platypezidae except the smoke flies, *Microsania* species, which are "rookvlieges". As indicated in the title "breedvoetvliegen" are flat-footed flies, while *Opetia nigra* is the "basterdbreedvoet" – as it doesn't have flat feet one can guess the meaning, apparently questioning the legitimacy of its inclusion.

An English translation of the key is included as a supplement, with the figures explaining the terms used repeated in English. The Dutch version of the key is copiously illustrated with drawings, showing the characters used. Males and females are keyed separately for all species, and the keys are relatively simple with only one or two characters used in most couplets. Colour characters are used wherever practicable, which usually work well, though couplet 18 of the male key, separating *Seri* from *Bolopus* only on "colourless" as opposed to dark wings, could be confusing as *Seri* males have the wing distinctly more tinted than their females, hence the specific name *obscuripennis*, while there are good venation characters to separate them from *Bolopus* and hairs on the male frons in *Seri* that are absent in *Bolopus*.

There is a comprehensive introductory account of the biology, illustrated by photos of adults and larvae on their fungus hosts, and rearing techniques are described. There is also an excellent set of photos of the fungi in which larvae had been found by the authors, which should be helpful in identifying the fungus species likely to be supporting these flies. A list is given of the known fungus hosts in the Netherlands and elsewhere in Europe. Rearings by Menno Reemer had resulted in new host records for ten species, some of which have been published in other recent publications. The confirmation that *Platypeza hirticeps* develops in honey fungus, like other members of its genus, is of interest.

A photo is also included of a mating pair of *Agathomyia wankowiczii* – the pair of *Platypeza consobrina* taken by Brian Valentine is the only previously published photo of mating in this family (it appeared in the paper cited as in press in the recent Flat-footed Fly Recording Scheme newsletter in Bulletin No 82; that paper has since been published on line: Tkoč, M., Tóthová, A., Ståhls, G., Chandler, P.J. & Vaňhara, J. 2016. Molecular phylogeny of flat-footed flies (Diptera: Platypezidae): main clades supported by new morphological evidence. *Zoologica Scripta* DOI: 10.1111/zsc.12222).

The main body of the text is an account of each of the 43 included species arranged under the headings of recognition, biology and distribution. For the 37 Dutch species there are maps showing the distribution within the Netherlands, with records displayed in two date classes, up to 1999 and from 2000 onwards; these show a good coverage of the country, with a concentration of records in the central, presumably more wooded, regions. For the 27 better recorded species there are phenological tables, showing the seasonal occurrence and the relative frequency of records within each period (for which each month is divided into three parts), shown separately for males and females.

The most attractive aspect of this book, also a feature of the tephritid volume, is the inclusion of colour photographs of live adults of most species, with at least one sex represented for 37 species and both sexes for 30 of them, thus illustrating well the marked

sexual dimorphism in form and coloration that is so striking in Platypezidae. The great majority of these were newly taken for this work from Dutch specimens, a large proportion of them obtained by rearing. Only seven species were represented by foreign specimens, including four of the species not known to occur in the Netherlands, and for most of those the excellent photos taken in Russia by Dmitry Gavryushin were used. Callomyia elegans is as rare in the Netherlands as it is here, and is known only from a single male record in 1923; I am doubtful about the identification of the female used to illustrate this species (taken in Russia by F. Mucha), which appears to be a variant of C. speciosa (C. elegans female has the pale abdominal markings on tergites 2-4 clearly separated into lunules – an authentic photo of this, taken by Dmitry Gavryushin, was included in the newsletter in Bulletin No 82). Males of both species confused under *Callomyia amoena* are illustrated, but these are grouped under amoena pending further study. The rear cover photos show the authors in action in the field, one of them sweeping smoke flies at a bonfire.

This book is so well illustrated that it can be recommended for identification of the British species and should encourage the gathering of records for the newly launched Flat-footed Fly Recording Scheme, which was the subject of the newsletter in the latest Autumn Bulletin. Its inclusion of species not yet found here is also helpful in case some of them might turn up here – *Platy*pezina connexa is a very recent addition to the British list, so others are possible. Larvae of Kesselimyia are shown feeding on a parasol mushroom Macrolepiota procera, so that is something to look out for.

It is particularly interesting that two of the recently separated species of the Agathomyia elegantula group, A. alneti and A. elegantula itself, have now been recorded as new to the Netherlands in association with Antrodiella species, a host association already discovered in Finland; A. alneti was found in Antrodiella serpula on alder as in Finland, while A. elegantula was on Antrodiella faginea (also on alder), while it had been obtained from A. pallescens on birch in Finland. Only A. boreella of the species earlier confused under A. elegantula has far been confirmed in Britain, and the rarity of the host fungi provides the main factor limiting their discovery.

An excellent work that is recommended to all dipterists.

Peter Chandler

Publications

Status reviews

Falk SJ, Ismay JW, Chandler PJ. 2016. A Provisional Assessment of the Status of Acalyptratae flies in the UK.

http://publications.naturalengland.org.uk/publication/6392320625213440?category=1 0006

This represents a remarkable feat for the authors, the latest in a long sequence of assessments carried out over decades and representing a considerable level of field and taxonomic knowledge.

Bootleg copies of this have been circulating for around 20 years, the original having been completed in 1995. That early date accounts for one or two oddities in the background text. For example since that predates the NBN Gateway we're told that Dipterists Forum holds all the Field Week data. Stuart Ball was amongst the first to make such data publicly available on the Gateway - so that's where we "hold" it now (see our account in Bulletin #81)

The species accounts ("datasheets") are a different matter, assembling all these accounts using only published papers was a

remarkable feat in 1995 but these were revised using papers up until 2005. Though the status review doesn't actually tell you this, information right up until 2016 was used to give final tweaks where necessary. You can be reassured that those accounts are pretty much bang up to date.



All the status terms in this document are detailed with the exception of one: Nationally Scarce. Most users will be familiar with the term (<100 x 10km squares) but if you want more background to that there's a description in paragraph 5.4 of the Empidoidea review (Falk, Crossley, 2005) and in Falk, 1991.

Users would undoubtedly value individual data sheets for presentation to clients as a component of survey work or for use on websites, there are plans to incorporate these on the updated

Dipterists Forum website.

It seems feasible for future Assessments to be made by analysis from data published to the NBN Gateway (=NBN Atlas). A processing time of 2 years seems highly achievable from digitised data appropriately published, a challenge for us all for this decade.

Darwyn Sumner

Field survey

On the subject of European workers, I came across an amazing piece of work recently that's packed with all sorts of stuff: Diptera records, field and lab techniques, photographs, maps. It's in French so I've been too lazy to determine what the objectives of the work were meant to be but I'm guessing it's a commissioned field survey:

Miroir, J. (2013). Noțe relative au suivi des indicateurs fauniștiques et floristiques mis en œuvre dans le cadre du programme Suivis floristiques et entomologiques. Association Symbiose.

http://www.symbiose-biodiversite.com/wp-content/uploads/2014/04/result_flore_ entomof 13-ME.pdf

This sets an extraordinarily high standard for a report of this nature.

Darwyn Sumner

Cumbrian Diptera

Published late last year, Steven Hewitt followed up the Dipterists Forum AGM at Tullie House Museum in 2014 with a Cumbria checklist:

Hewitt S. 2014. A provisonal checklist: Cumbrian Diptera

http://www.carlislenats.org.uk/wp-content/uploads/2016/10/Diptera-draft-checklist-oct-2016.pdf

Dedicated to Dr Neville Birkett (1916-2013)

Endemism

"A species is endemic if it is confined to a particular place" So begins Adrian Plant's article in Dipterists Digest (2014. Vol. 21 pp 89-101). If you're developing such concepts it is mandatory to use acceptable statistics and this can be very heavy reading for those unfamiliar with them. Start at the pictures and work backwards is my motto, the results section explains the maps. Readers who

dislike acronyms may find it easier to think "tile" when reading "OGU" (is that just me?). Adrian's Map 1 works as a hotspot map for Empididae, it shows you where to go if you want some good catches; not here in Leicestershire: terra incognita for Empids.

Adrian teamed up with workers in Germany and Belgium to produce a follow up to this work in:

Plant AR, Jonassen T, Grootaert P, Meyer H, Pollet M, Drake,

M. 2017. The arrow points north – endemic areas and post-Devensian assembly of the British Empidoidea fauna (Insecta : Diptera).

https://academic.oup.com/biolinnean/article/doi/10.1093/biolinnean/blw011/2801249/ The-arrow-points-north-endemic-areas-and?guestAccessKey=353145a8-0d28-4655-9cc8-665395b21059

If your approach to papers containing hard sums is like mine, to get what you can from the introduction, then this alone is a gold mine. Everything you need to know about endemism and the comment: "fine-scale biotic processes – such as speciation, extinction, dispersal, and species interactions – and broad-scale geographic/ geological processes including plate tectonics, changes in sea level or climate, and the formation of topographical barriers to dispersal" tells you Adrian is dealing with Historic Biogeography, reknowned for some highly sophisticated analyses and insightful outcomes. Illustrations with high cognitive loads can be hard to interpret but his Map 7 rewards the effort, just relate this to his description of the "coefficient of species dispersal direction", not a hard concept to grasp, and it brings the diagram to life. Peter Chandler agrees that it is likely that many of the concepts and hotspot diagrams may apply to other groups as well,

A helpful book which explains some of the concepts is Crisci J V, Katinas L, Posadas P. 2003. Historical Biogeography: An Introduction. which I managed to get free off the internet.

Darwyn Sumner

Taxonomy

Santos CMD, Amorim DS, Klassa B, Fachin DA, Nihei SS, et al. 2016. On typeless species and the perils of fast taxonomy Syst. Entomol. 41:511–15

http://onlinelibrary.wiley.com/doi/10.1111/syen.12180/epdf

Very relevant to today's downgrading of real taxonomy.

Michael Ackland

Publishing

Self-archiving

This is a formal term in the world of publishing. ResearchGate keeps asking me if the journal I published in supports self-archiving. If it does then I can drop the text of my article into their system and a free copy of it may then be shared online; it's Open Access. That benefits me as a writer because other researchers in the same area notice it, use it, cite it and share their papers on similar topics with me.

The Wikipedia entry on "self-archiving" is remarkable, on one short page it refers to a number of topics in this general area that I've been discussing in this Bulletin for some time, including Open Access, embargoes and the two social reference management software websites (Mendeley & Researchgate) which facilitate sharing between researchers.

Apparently the practises of Open Access and self-archiving are commonplace nowadays amongst publishers (78%) but not really implemented well in our sector, we can get by by adding pdfs from our own articles in Dipterists Digest to an extent and the Bulletin

(though there's rarely anything that warrants a full citation in here). ResearchGate might also be a system that Scheme Newsletters could use, it's free and easy to drop your pdfs into their silos.

Oddly though, the Gateway/Atlas uploaded datasets are not "selfarchiving", I've contacted NBNt about it and they tell me they are thinking about it.

Georeferencing in papers

I've noticed a trend in the way in which location details are recorded in European papers. If you follow the publications of some authors, its noticable that they have used the best georeferencing technology available each time they write a paper. Increasingly authors are beginning to be more specific about precise locations. Back in the 1980s if distribution comments were made against a described taxon in a paper you'd be lucky to get more than mention of a country. Georeferencing gradually improved over the years with the inclusion of country grids and named sites. Recently we're seeing full Lat Long coordinates of the sites in such papers:

Roháček, J., Andrade, R., Gonçalves, A. R., & Almeida, J. M. (2016).

New records of Micropezidae, Clusiidae and Periscelididae (Diptera: Acalyptrata) from Portugal.

Acta Musei Silesiae, Scientiae Naturales, 65(2), 153–166. http://doi.org/10.1515/cszma-2016-0020

Nilsson-Örtman V. 2011. Bidrag till kännedomen om de acalyptrata flugorna. Del 2. Pseudopomyzidae – hur och var hitfar man en reliktfluga? Skörvnöpparn. 3(1):7–11

http://www.norrent.se/images/stories/upload/Skorvnopparn/2011/SN_2011A_07-11.pdf Hopefully the next step will be data DOIs and citing of GBG datasets like the Gateway/Atlas or GBIF if these organisations ever fathom a way to reference their datasets in such a way that they can be quoted in a published paper. Then we'll be able simply to download the data.

Why is georeferencing important? The only two sources of species occurrence data outside active recording initiatives (and maybe photography) are museum collections and published papers. Mobilising of data from museums is patchy and not usually in one's area of interest: "most museum collections of insects do not yet have a specimen-level inventory" (Torsten Dikow in Fly Times #51) More detail on the state of digitising of museum records is in

Page LM, Macfadden BJ, Fortes JA, Soltis PS, Riccardi G. 2015. Digitization of Biodiversity Collections Reveals Biggest Data on Biodiversity. . 65(9):841-42 https://academic.oup.com/bioscience/art ... sci/biv104

The authors state that "The localities and dates of collection associated with these vouchered specimens provide the only large-scale, verifiable data available on native distributions of organisms and how those distributions have changed over time". "Only"? - no naturalists or publishers of papers or GBGs in America then. More of interest are their figures on museum specimens. There are around 1500 museums in the US and specimens amount to billions. Of these only 10% have been digitised and most of that is only accessible to researchers at those institutions.

Published papers are critical in determining distributions of species outside the UK.

Some Open Access journals nowadays demand the inclusion of raw digitised data before they'll accept submissions (this arose in part due to dodgy statistics in some medical journals.) It would be good to see a trend towards this in journals in our sector, valuable data is accumulating in paper publications at an alarming rate and no-one's publishing this digitised data to GBGs.

How to track down papers

1. Nigel Jones recently directed me to a paper that had just been published in my area of interest that I hadn't spotted using my usual methods. He's using **Facebook** and searches through a group on there dedicated to Diptera. I can't say much more than that as I've not succumbed to setting up an account yet, but from the copy he sent me of one small discussion thread it's clearly a method of discovering what's going on in the world of Diptera that cannot be ignored. One good example of what he's been finding by that method is illustrated by a posting on Dipterists Forum Forum which caused a little excitement recently amongst Dolichopodidae fans, a key to *Medetera* (http://www.dipteristsforum.org.uk/t5587-Medetera-Palaearctic-species-published.html)

2. Postings on websites, our own Dipterists Forum Forum and Diptera.info for example. Clearly these depend upon someone else spotting them and putting a message on these forums.

3. **Mendeley**: I've set myself up on this system so that I receive a weekly email that says "*Here are personalised suggestions for articles to read based on your Mendeley library*". So what it's doing is observing what papers I bung in the Mendeley desktop application (recall it's a citation manager and pdf reader/organiser too) and hunting through papers that others have put into the system throughout the world then using some kind of algorithm to calculate similar material. I've got to say that the low usage of this system amongst dipterists means that Diptera papers are rarely encountered but since I've interests in related topics like biogeography I'm getting some useful stuff through this mechanism.

4. **ResearchGate**: Paula Lightfoot recommended this to me at the NFBR conference last year so I gave it a go. It's quite a serious forum for researchers and publishers of scientific papers. The membership criteria are stringent, you've got to have published one paper in a recognised journal and be approved by that journal.

I got away with that by quoting a Dipterists Digest article. After bunging in a few basic details like topics of interest/expertise you're up and running. Those topics are rather to broad so it's not possible to specify Diptera. After that you're connected with a huge community of researchers across the world, it's one of those social group things but it's way less frivolous than LinkedIn. Like Mendeley you can also get a weekly email of suggested papers based on your interests and again not too much on my Diptera interests. It picked up pace a little when I added a project or two (just detail what you're working on and add a bunch of references, in effect you've refined your topic of interest/expertise) after which you begin to get noticed and can start to make contact with researchers in similar areas. One big bonus of ResearchGate is that any papers published by authors signed up can either be cadged off them or when you do an internet search they're more likely to crop up as free downloads.

I'm bound to say that both systems are a little too low on papers directly concerned with Diptera but that's just a feature of the community of authors in our sector. Unless they join these forums and upload their publications their papers won't be available through said forums. Perhaps Nigel could encourage some of his Facebook contacts to sign up.

5. Simply copying a citation from a paper and pasting into an internet search engine or searching for a topic. That doesn't always find specific words but increasingly the familiar entomological journals are uploading whole journals to the internet.

6. Checking through the lists in Fly Times (http://www.nadsdiptera.org/News/FlyTimes/Flyhome.htm) There are search facilities built into Adobe Acrobat products and other pdf organisers (e.g. Mendeley). Search the Fly Times' huge lists for a Family name to locate individual papers.

7. Friends and colleagues in Dipterists Forum - many thanks.

Darwyn Sumner



Mike Pugh

Meetings

Reports 2016

Annual General Meeting

Saturday 26 November 2016

The Chairman, Howard Bentley, opened the meeting at 12:10

Apologies for absence

Victoria Burton, John Ismay, Barbara Ismay, Erica McAlister, Mark Mitchell, John Cole

Minutes of the last AGM and matters arising

The minutes of the last AGM, as published in the Spring 2015 Bulletin, were accepted unanimously as correct (proposer John Showers, seconder Malcolm Smart), and there were no matters arising.

Secretary's Report Membership

John Showers, membership secretary, has worked very hard in chasing up late payers, and we currently have 366 members and 323 subscribers to the Digest. Over 30 members from last year have not re-joined, despite reminders from John, but there have been 31 new members. The updated membership form asks new members how they heard of the Dipterists Forum – of the 5 that completed that section, 2 were from the website, 2 from training courses and 1 from Facebook.

Committee Meetings

The committee of the DF supports the work of the organisation as a whole, planning field trips, arranging bursaries, publicity, training and other events, as well as producing two publications.

We held two meetings in 2016:

Oxford University Museum of Natural History, March 12th

BENHS' meeting room at Dinton Pastures near Reading, 22 October

A third meeting had been planned to take place during the summer field meeting at Canterbury, but due to many people not being able to attend this was cancelled. However, as much business and decision making now takes place via email, this did not have a big impact. Committee members are spread across the country, and there is an on-going issue with finding meeting places that are suitable and free to use, while at the same time accessible for most people. Please let me know if you can suggest venues that we may find useful.

The Committee can report that some progress is being made with the website re-development. Chris Raper has been working with the Centre for Ecology and Hydrology in Wallingford in this development. They are now looking at how to transfer the data, as well as menu and access options. The new website will have species checklists and accessible photos from galleries with a good search facility, as well as a calendar of events. The committee hopes to be able to make further good progress during 2017, and are grateful to Chris for the time that he spends on this initiative.

Field Meetings

We have had three field meetings this year:

Spring meeting in Somerset (20-22 May)

Summer meeting in Canterbury (2-9 July)

Autumn meeting in Northamptonshire (9-12 October)

The Spring and Autumn meetings were organised by Roger Morris and we are most grateful for all that Roger has done, and continues to do, with arranging short field meetings. For the summer field meeting, the committee now splits the work required between existing officers. The week at Canterbury was arranged in this way mainly by Howard Bentley, Amanda Morgan, Victoria Burton and Alan Stubbs, along with considerable assistance from Laurence Clemons, the County Recorder for Kent, and was thoroughly enjoyed by all who attended. The group was joined by one of our youngest active dipterists, aged 12, who wrote an interesting piece in the last Bulletin about his experience. It is very heartening to know that we have some young fly enthusiasts, and we aim to nurture their interests where possible.

Local Fly Groups

Two local fly groups continue to be active, Northamptonshire run by John Showers and Devon by Rob Wolton, Martin Drake and Andrew Cunningham. They provide excellent opportunities for new and experienced dipterists, and provide many records for the various schemes.

The Northants Diptera Group met every Sunday morning from the end of April until early September, and meetings will be held next year covering the same period. The Spring 2017 Bulletin will include a report of activities and records. The Group would welcome someone in the Southwest of Northants collecting data there.

The Devon Fly Group continues to meet every month and has made many good records. One highlight was re-finding the cranefly *Helius hispanicus* at its only known British site. At an indoor workshop in February, members gave a number of short presentations ranging from midges feeding on dragonfly haemolymph to cheap specimen storage. The group has also identified a dozen species or assemblages to include in a list of 100 flagship species/assemblages for Natural Devon, a local nature partnership initiative.

Training and Bursaries

The Dipterists Forum annual advanced workshop at Preston Montford was held in February, with Steven Falk, Daniel Whitmore and Olga Retka tutoring the group on Calliphoridae, Sarcophagidae and Rhinophoridae.

John and Barbara Ismay gave one beginners course in the Oxford University Museum last December and they are going to give another course in Dinton Pastures for the BENHS on 11th and 12th February 2017.

Roger Morris and Stuart Ball ran four courses in an Introduction to Hoverflies, held at Brecon, Sussex, Cambourne, and Preston Montford. They also ran two courses in an Introduction to Diptera, held at Preston Montford and London School of Hygiene and Tropical Medicine. Roger reports that they already have several courses planned ahead, one Introduction to Flies, and three Introduction to Hoverflies for 2017, as well as an Intermediate Hoverfly course in 2018.

The Committee are extremely grateful to the individual members of the Dipterists Forum who give their time and skills towards the various training courses.

The Committee granted bursary funding for two places at the

February workshop and a further two for the Canterbury meeting. One bursary has been approved for the February 2017 workshop. Applicants are asked to submit applications explaining their reasons for wanting to attend, as well as why they require the bursary, and are expected to be existing members of the Dipterists Forum with a commitment to recording and conservation.

Outreach

This past year the Dipterists Forum was present, with banners and leaflets, at the Staffordshire Invertebrate Fair, the National Forum for Biological Recording conference, the AES (Amateur Entomologists Society) exhibition at Kempton Park and BENHS (British Entomological and Natural History Society) exhibition in London. Many thanks to the various people who attend these events in order to represent and publicise the Dipterists Forum.

Recording Schemes

The various recording schemes continue to be active – see the Autumn 2016 Bulletin for reports. Two new recording schemes have been set up this year, Calliphorids by Olga Retka and Platypezids by Peter Chandler. The committee is exploring ways of supporting group organisers to make their information available through the NBN, in order to increase its value for conservation purposes.

Publicity

Erica McAlister has had a busy year as our publicity officer, having designed business cards for the Forum and also a leaflet entitled What Good Are Flies. These can be printed and distributed at events that the Dipterists Forum attends as well as at training courses. Erica is also responsible for Social Media. The Dipterists Forum Facebook page, which is open access, has increased in its activity during the past year, and more people are interacting with the page. The Dipterists Forum Facebook group is more user friendly, but you have to become a member of the group. This has increased by 79 members during the past year to a total of 508, however in comparison to other comparable social media groups the numbers are still low. On Twitter the number of new followers has fallen, but the number of tweets has slightly increased during the year. The number of profile visits (how many people open up a tweet), the impressions (the number of twitter streams that the tweet goes to) and the mentions (when the Dipterists Forum is copied into someone else's tweet) are all up from last year. Many thanks to Erica and Victoria for leading on our Facebook and Twitter accounts, and as Erica points out, it would be very good to have more members involved.

Rob Wolton and Victoria Burton, on behalf of the Committee, commissioned a film maker, Nina Constable to make a 5-minute video called Flies are Fascinating. The final version will also be made into a 3-minute version more suitable for some social media, and we hope this will assist greatly with furthering publicising our organisation. Many thanks to Rob, Victoria and of course Nina for a superb job.

Conservation

Rob Wolton, conservation officer, reports that the best news was Ian Andrews re-finding the barred green colonel *Odontomyia hydroleon* at its sole remaining British site after two years with no sightings and following improved site management. In September the DF made a submission to a parliamentary inquiry into the future of the natural environment after Brexit with particular reference to public funding of agriculture. More recently we have expressed concern about the loss of valuable fly habitat at a limestone quarry near Tomintoul in the Cairngorms and received encouraging responses from both the national park authority and

Scottish Natural Heritage. The DF has been assured that no further habitat loss will occur at the site and that some restoration work will take place: Buglife is taking the case forward. This case highlights the need for dipterists to submit their records to record centres – the national park was wholly unaware of the importance of the site. We are currently engaging with Natural England over the impact of unregulated or thoughtless fungi collection on Diptera and other invertebrates.

Bulletin

As in previous years, we extend a big thank you to Darwyn Sumner and Judy Webb for the continued production of the Bulletin, and to John and Barbara Ismay who help with distribution.

Finally, Peter Chandler will be giving a separate account of the Digest during this meeting, but the committee would like to thank him for his considerable contribution in this respect.

Amanda Morgan

Treasurer's Report

This report was presented by the Chairman in the Treasurer's absence. Currently we have $\pounds 24,146.33$ in the bank, which is $\pounds 6,079.53$ less than last year. We also have material assets (microscopes, display boards, storage boxes etc) with a total value of nearly $\pounds 5,000$. The decreased balance is due to increased publication costs, expenditure on a promotional video and bursaries. In addition, the deposit has been paid for the 2017 Summer field trip in Snowdonia. Despite this our finances remain healthy. The Committee has emphasised spending on trying to get younger people interested in becoming active dipterists, hence the subsidising of workroom costs for the Summer meeting, and the availability of bursaries, as well as the promotional video. Thanks to Tony Pickles and Alec Harmer who audit the accounts for no renumeration.

The treasurer's report was accepted unanimously and there were no questions.

Victoria Burton

Dipterists Digest Editor's Report

I reported last year that the second 2015 part could not appear in that year because of insufficient material coming in, but the supplement to the 2014 volume was published and distributed before the end of 2015. Enough new material then came in for the second part of volume 22 to be completed early this year and it was printed on 31 March.

Again only one part of the current year's volume has so far appeared. It was published on 2 September. This included everything received by July and was one of the more international issues, with 5 items covering southern Europe, Morocco and Iran - if you want more local items send them in. Both this and the previous issue also included species new to the British Isles from Jersey. These do not, however, appear in the British Isles checklist, which excludes the Channel Islands. Other new arrivals continue to fill the pages, with six in this latest issue.

I am in a better position than last year regarding new submissions and so far have 17 items totalling 94 pages. A little more was needed to complete an issue, but publication early in 2017 should be possible. An issue devoted to my account of the Diptera of Windsor Forest and Great Park will probably now follow later in 2017, so it should be possible to get back on schedule with a second issue later in the year.

As mentioned last year, a separate supplementary issue was produced to avoid holding up articles on other subjects. I said then that supplements on other subjects additional to our usual two

issues per year were possible. I suggested that it may be a way of Office publishing keys to some families as a more streamlined alternative to a full scale RES handbook. Nothing has yet been projected, but such options will still be considered.

I thank all authors for their support, Stuart Ball for keeping up to date the Digest contents on the website and placing the updated checklist there, Mike Pugh and Richard Underwood for proof reading and Richard for efficiently carrying out distribution.

Finally, it has been suggested that I should consider a larger font size, which might make it easier to fill an issue. The last slight increase was in 2005, but was compensated for later by reducing the size of the margins. If anyone has any views on this please let me know.

Amendment to Constitution

Peter Chandler **Committee Members**

The Chairman gave the background to the amendment being proposed. A couple of years ago some members had suggested that the name "Dipterists Forum" should be replaced with a more modern and generally understood name. The Committee discussed this matter, and after consultation with members, decided that we would not change the name. It was then pointed out that we already have an alternative name on the website, but not in the constitution. Hence the Committee now puts forward this proposal:

At present, section 1 of the Constitution reads: "The Organisation shall be called the DIPTERISTS FORUM, hereafter referred to as the Forum." The following is proposed as a replacement: "The formal name of the Organisation shall be the DIPTERISTS FORUM, hereafter referred to as the Forum. In less formal situations the Organisation may be called THE SOCIETY FOR THE STUDY OF FLIES (DIPTERA)."

The vote (proposer Rob Wolton, seconder Alan Stubbs) was carried by 25 in favour and 8 against the motion.

Any Other Business

None

Chairman's Vote of Thanks

The Chairman thanked all the Committee for their hard work. It seems unlikely that we will replace the Field Meetings Secretary position with one person, and that role is now split between various members of the Committee. Many thanks again to Roger Morris for having undertaken such a huge job for many years. Also thanks to Duncan Sivell for having organised the weekend venue and speakers. Howard announced that after two years he was now stepping down as Chairman, and that he proposed Rob Wolton as the new Chairman.

Election of Officers

Rob Wolton (proposer Martin Drake, seconder Malcolm Smart) was elected unanimously as the new Chairman.

Rob thanked the outgoing Chair, and complimented him on his skill and diplomacy with handling sometimes contentious procedural matters. He has also set a very clear direction for the organisation in encouraging more young people to become active within the Dipterists Forum. Further changes to the committee for the forthcoming year are that Duncan Sivell is standing down as Indoor Meetings Secretary with Martin Drake willing to take on that role, and Howard Bentley is proposed as Vice Chair. Phil Brighton is proposed as a new Committee member.

Chair Vice Chair Secretary Treasurer Membership Secretary Field Meetings Secretary Indoor Meetings Secretary **Bulletin Editor** Assistant Editor **Publicity Officer** Website Manager Conservation Officer

Officer

Rob Wolton (Proposed) Howard Bentley (Proposed) Amanda Morgan (Proposed) Victoria Burton (Proposed) John Showers (Proposed) Vacancy Martin Drake (Proposed) Darwyn Sumner Judy Webb Erica McAlister Stuart Ball Vacancv

Chris Raper Malcolm Smart Peter Boardman Duncan Sivell Philip Brighton (Proposed)

Ex Officio (Editor Digest) Peter Chandler

The meeting voted unanimously to elect the officers and members of the Committee (proposer Peter Boardman, seconder Andrew Halstead).

Chairman's thanks to hosts and formal closing of the AGM

Rob Wolton thanked Duncan Sivell for organising the weekend and AGM, and thanked the Natural History Museum (London) for hosting the meeting.

The meeting closed at 12:45

Forthcoming

More reliance is now being placed upon our website to provide up-to-date details of our meetings (and others). This method will allow several members to make contributions and ensure that this Bulletin is not delayed by late meeting arrangements.

The following links will be found useful:

A **booking form for Dipterists Forum events** can be downloaded from the DF website in the "Dipterists Forum information" section at http://www.dipteristsforum.org.uk/viewtopic. php?pid=15522#p15522 (used for our Summer Field Meeting and may be asked for for other field meetings). A good deal of invaluable background information about Dipterists Forum is also to be found in this section.

Calendar of events: Judy Webb's comprehensive calendar is to be found in the "News" section at http://www.dipteristsforum.org. uk/t4918-Forthcoming-events-calendar-2016-17-interested-flies. html Please check this same "News" section for late notification of details of our meetings. We have plans to improve the presentation of this calendar, being particular admirers of the system used by the British Dragonfly Society at http://www.british-dragonflies.org.uk/content/upcoming-events

Dipterists Forum Workshops: Invariably held at Preston Montford Field Studies Centre. Dipterists Forum knows the dates and topic well in advance of FSC advertising the workshop on their website, to book you will need to check the FSC website (http:// www.field-studies-council.org) around early October and hunt around for our specific workshop which will be under http:// www.field-studies-council.org/individuals-and-families/naturalhistory/animals/other-invertebrates.aspx

2017

Diptera Workshops 2017

Snail-killing flies (Sciomyzidae) and Fruit flies (Drosophilidae)

Preston Montford Field Studies Centre 17 - 19 February 2017

Tutored by Stuart Ball & Peter Chandler

Details on FSC website: http://www.field-studiescouncil.org/prestonmontford from 17th October. (search in Individuals & Families then Natural History Courses)

Spring 2017 Field Meeting

South Northamptonshire 25th to 28th May 2017

We are planning our Spring 2017 field meeting for Thursday 25th May to Sunday 28th May inclusive in South Northamptonshire. The primary site will be the Yardley Chase MoD area This is a large area of ancient woodland, parkland and meadows and is an SSSI. The site also has many high quality ponds, dug in the Second World War to provide blast banks around munitions stores. The site is still used by the military and police for training purposes so access is tightly controlled. Anyone wishing to join us must contact me at least a week in advance so I can send you details of access, meeting points etc.. It is not possible to get onto the site individually and everybody will have to sign in, have a safety briefing and sign out. There are no live munitions on the site but there are a number of hazards to be made aware of.

The site was formerly part of the deer park and forests of the Compton Estate prior to its requisitoning during the war and contains the oldest trees in Northamptonshire, many in advanced states of decay. Much of the woodland was coppiced during the war and then has not been managed since, although some parts are still actively managed. Some areas of woodland are wet, with extensive birch but the majority is oak/ash/field maple woodland. The meadows are grazed by cattle throughout the year.

It is hoped that the visit will provide an update to the species status on the site and recommendations for future management.

At the time of writing we are hoping that we will be given access to the private woodlands eg Sane Copse, on Yardley Chase too but this is awaiting confirmation.

The site(s) are around the village of Yardley Hastings on the A428 Northampton to Bedford road. Accommodation can be found reasonably closeby in the following places: South Northampton, Wellingborough, North Bedford, Sharnbrook, Olney, Newport Pagnell, North Milton Keynes.

Further details will be put on the DF website closer to the event. If you wish to join us or have any queries regarding the visit please contact me.

John Showers
Summer 2017 Field Meeting

Snowdonia National Park 10 - 16 June 2017

We have booked accommodation at the Snowdonia National Park Environmental Studies Centre at Plas Tan y Bwlch, details at http://www.eryri-npa.gov.uk/study-centre Location: LL41 3YU - SH655406, across the valley from Maentwrog; the area was much explored by Peter Crow and the centre's grounds are the famous location of *Cheilosia semifasciata*. (see "Peter Crow's Merioneth Syrphids (Diptera, Syrphidae)" in Dipterists Digest Vol 1. No. 2.)

Centre facilities comprise standard rooms (shared bathroom facilities) and ensuite. There are 25 of these ensuite rooms, and while many rooms are single there are shared options as well, so everyone should be happy! The price will include breakfast, cooked evening meal and a packed lunch. It will also include use of the workroom (the field work room) and the use of two minibuses.

The cost has not been finalised and more details will be announced later. You can reserve your place by sending a £50 deposit to the Treasurer (also tell the Secretary you've done that.)

Many widely varying habitats are within easy striking distance, including the huge dunes of Morfa Harlech and Morfa Dyffryn, soft-rock cliffs on the Lleyn coast, numerous valley woodlands, plenty of acid mire and a few calcareous fens, and the spectacular montane habitat of Snowdonia. **More details will be given on the DF website.**

DF website http://www.dipterists.forum.org.uk

Autumn Field Meeting

Mid October 2017 (usually)

The venue for this meeting has yet to be agreed.

Please keep an eye on the DF website for details.

Roger Morris at roger.morris@dsl.pipex.com

Annual Meeting

Saturday 25 & Sunday 26 November 2017

Liverpool Museum

Dipterists Forum annual meeting and AGM 2017

The annual meeting will be held at Liverpool Museum. This will be our first visit there although parts of their large Diptera collection will be familiar to those who attend the Preston Montford training courses. More details will be given in the autumn Bulletin and website in due course.

2018

9th International Congress of Dipterology

Windhoek, Namibia

25 - 30 November 2018 http://icd9.co.za/ http://www.nadsdiptera.org/ICD/ICD9_home.htm





Dipterists Forum at the AES exhibition 2016 [Judy Webb]

Photographs for the Bulletin

It is produced in colour, honestly. Just go to our website and download the pdfs. There's a 3 issue moratorium at the moment so that members can get the benefit before it all becomes Open Access.

Some members prefer to have their Bulletin as a pdf, hopefully there will be an improved means of delivering it to them by this means once we've got our new website up and running.

In the meantime please think about donating some pictures for use in the Bulletin, not only does it add interest but it helps considerably when the editor is struggling to avoid large areas of blank space. For printing purposes the total number of pages (including all the newsletters) has to add up to a multiple of 4.

Thanks to the generosity of a number of people I have a small library of fly pictures but they're soon used up. Just a couple in an email would be greatly appreciated and because I'm competing with all the Recording Schemes who want them for their newsletters, have a look around for examples in groups not covered by the scheme newsletters.

Of particular value would be images you have used in the identification section of the Dipterists Forum website or any successes you've had in getting identifications elsewhere such as iSpot, iRecord or Diptera.info. Those posted images are soon forgotten but the good quality ones might make a valuable contribution to the Bulletin.

Many thanks to several regular contributors, Alan Outen, Paul Brocks, Mike Pugh, Joan Childs, Peter Chandler, John Showers, Judy Webb and others.

More please, and don't forget to include your name in the metadata (a setting in your camera) - other tips below.

Contributing Bulletin items

Text

1. Articles submitted should be in the form of a word-processed file either on disk (3.5", CD or USB Flash) or via E-mail which should have the phrase "DF Bulletin" in the Subject line or placed in the appropriate Dropbox, details of which are emailed out by the editors to committee members (others please enquire). Email text alone will not be accepted.

2. Please submit in native format (http://en.wikipedia.org/wiki/Native_and_foreign_ format) and in "text-only" Rich Text Format (.rtf) and additionally send pictures in their original format. An accompanying print-out (or pdf) would also be useful.

 Please note the width of the borders used in Dipterists Bulletin; for conformity with style would newsletter compilers please match this format. The document must be A4.
 Do not use "all capitals", underlining, colouring, blank lines between paragraphs, carriage returns in the middle of a sentence or double spaces.

5. Do not include hyperlinks in your document. Since they serve no purpose in a printed document and the editor has to spend time taking them out again (the text is unformattable in DTP if it has a hyperlink attached), documents containing hyperlinks will be sent back to you with a request for you to remove them. There's a guide on how to remove Word's default hyperlink formatting at https://www.uwec.edu/help/Word07/ hyperlinkfor.htm

6. Scientific names should be italicised throughout and emboldened only at the start of a paragraph.

7. Place names should have a grid reference.

Illustrations

 Colour photographs are now used extensively in the Bulletin, they appear coloured only in the pdf (older Bulletins may be viewed in colour on our website) or on the covers.
 Please include all original illustrations with your articles. These <u>should</u> be suitably "cleaned up" (e.g. removal of partial boxes around distribution maps, removal of parts of adjacent figures from line illustrations) but please do not reduce their quality by resizing etc..

10. Please indicate the subject of the picture so that a suitable caption may be included, in some cases it will be possible for the picture file's name to be changed to its caption (e.g. 049.jpg becomes Keepers Pond NN045678 12 Oct 2008.jpg) or add the appropriate metadata to your picture. All group pictures should identify all the individuals portrayed. **11. Powerpoint** files may be submitted, they are a useful means of showing your layout and pictures are easily extracted.



Caliprobola speciosa, Denny, Wood, New Forest 2011 [Joan Childs]

12. Pictures contained within Word files are of too low quality and cannot be extracted for use in the Bulletin.

13. Line artworks are also encouraged - especially cartoons

14. Colour pictures and illustrations will be printed in black and white (uncorrected) and so it would be wise to see what a B&W photocopy looks like first, although the print quality from Autumn 2009 onwards gave excellent B&W results.

15. A suitable colour photograph is sought for the front cover (and inside front cover) of every copy of the Bulletin, note that it must be an upright/portrait illustration and not an oblong/landscape one for the front cover.

16. Due to the short time-scales involved in production, the editors will not use any pictures where they consider there to be doubt concerning copyright. Add your personal details to the metadata of the picture, guidelines to this in Bulletin #76.

Tables

Tables should be submitted in their original spreadsheet format (e.g. Excel)
 Spreadsheet format is also appropriate for long lists

When to send (deadlines)

Spring bulletin

19. Aims to be on your doorstep before the end of February, the editorial team has very little time available during January and so would appreciate as many contributions as possible by the middle of December; the deadline for **perfect copy is the 31st Dec**, it will be printed then distributed in late February. Please note that the date for contributions is now earlier than for previous Bulletins.

Autumn bulletin

20. Aims to be on your doorstep in early October, contributions should therefore be made to the editor **by the end of July**. It will be printed then distributed in time for final notification of the Annual Meeting, although late details may be posted on our website. Please note that the date for contributions is now considerably earlier than for previous Bulletin

Where to send (deadlines)

21. Would Bulletin contributors please ensure that their items are sent to **BOTH** Darwyn Sumner and Judy Webb.

22. Compiling and proofreading take place immediately upon receipt. Please send only your <u>final</u> proofs.



Cranefly News

Dipterists Forum Cranefly Recording Scheme For Superfamily Tipuloidea & Families Ptychopteridae & Trichoceridae

Newsletter No 32

Editor: John Kramer Sub-editor: John Dobson

Your Records

One purpose of the Cranefly Recording Scheme (CRS) is to collect accurate records of craneflies from all over the country and send them to the Biological Records Centre (BRC) at Wallingford, Oxfordshire. The CRS was formed by Alan Stubbs in 1973 and records have been collected and sent to the BRC since then. Many of these are historical, obtained prior to 1973 from county lists, museum specimen labels, field notebooks and other records.

Alan submitted the first Atlas to show the distribution of the British Tipulinae in 1984 and it was published by the BRC in 1992. Last year a total of 4,671 records were sent off, and in 2014 the total was 3,850. Thanks to all the members who sent those in. There are now over 110,000 unique national records for you and other researchers to use.

When a batch of records arrive at the BRC they are first logged and saved. The next stage is for them to be compiled and then, hopefully within 12 months, uploaded onto the BRC database. They are then, eventually, exported to the NBN Gateway database so that your records can be presented as a hectad dot map, and available for your research. It may take a number of years for your record to appear on the NBN Gateway

In order to view the species distribution maps on the NBN Gateway, simply log on to www.searchnbn.net and type in the scientific name of the species you want. To access the more detailed information, DF members need to sign up with the NBN.

Most records are sent to me by December of the relevant year and I send them to the BRC in the January of the year following. If any of you still have any un-sent cranefly records, it is never too late, and I would be very grateful to receive them.

John Kramer

The Revised Cranefly Keys

Since the last issue of Cranefly News a home has been found for the newly revised Cranefly Keys.

Pjotr Oosterbroek has offered to host them on the website Catalogue of Craneflies of the World (CCW). The keys will continue to be updated and revised versions will be uploaded a few times each year.

To download the keys go to http://ccw.naturalis.nl. Click on the heading Literature and then, in the



Search Box for Author type Stubbs Kramer and click on Search Literature.

Spring 2017

John Kramer



Martin Drake at work on a section of soft cliff near Axmouth, Devon, the habitat of many local craneflies. (*Photo R. Wolton*)

| Contents | |
|---|-----|
| Your Records | 1 |
| The Revised Cranefly Keys | 1 |
| Field Work Reports: The Devon Dipterists Group | 2 |
| Craneflies Emerging from Decaying Ash | 2-3 |
| Cranefly Report for Shropshire & elsewhere | 3-4 |
| Craneflies in Northamptonshire in 2016 | 4 |
| Tipula subnodicornis and Euphylidorea meigenii | 4-5 |
| <i>Molophilus ater</i> on Orkney | 5 |
| Craneflies in Lancashire and Cheshire in 2016 | 5-6 |
| Species New to Northamptonshire | 7 |
| The Naming of Things | 7 |
| Book Review: Shropshire Craneflies | 7-8 |
| Brachypterous <i>Dicranomyia sera</i> from Sutherland | 8 |
| Copy Deadline for next issue | 8 |

Field Work Reports for 2016

From the Devon Dipterists Group:

Helius hispanicus is still alive and well and living in Devon.

The Devon dipterists have had some interesting field meetings, and on the soft cliffs near Axmouth, Devon on 18 June 2016 their visit coincided with the emergence of the very local and rarely recorded cranefly *Helius hispanicus*.

Helius hispanicus was first recorded at this site on 19 June 1989 by Alan Stubbs and again on the same area of Undercliff on 2 July 1998 by Stuart Ball.

The identification is unproblematic. Like all members of Helius it has the long rostrum, but it is the only British member of this genus with dark tips to the wings, as well as the distinctive styles.

The stretch of soft cliffs from Axmouth to Lyme Regis is an NNR and *Arctoconopa melampodia* is also common there. The figure of Martin Drake can just be seen on the accompanying photograph (page 1) sweeping the vegetation.



Helius hispanicus Terminal segments (Photo. J.K.)

At the same field meeting, Martin Drake and Rob Wolton also reported *Idiocera sexguttata* and *Orimarga juvenilis* from the same stretch of coastline. Although recorded in Ireland *O. attenuata* is a species not yet on the British list, so it is worth checking the genitalia of likely suspects. The distinct fan-shaped genital apodeme shown here seems to be diagnostic of *juvenilis*.





Genital apodeme of Orimarga juvenilis (Photos. JK @NHMUK) John Kramer

Craneflies and other flies emerging from decaying ash wood.

In March this year I collected a few handfuls of decaying woody debris, and a couple of rotting blocks of wood each measuring about 20cm by 10cm, from the base of an ash tree on our farm (see photo.). This ash although not large must once have been hollow but has lost about half its trunk so the internal decay is now exposed from the base to above head height. The tree is barely alive, but struggles on. I put the rotten wood in a bucket with some fine mesh over the top and placed it is a shady spot in a polytunnel, keeping it damp with rainwater. I then waited to see what emerged.

The first fly to appear was a winter gnat (Trichoceridae), a male *Diazosma hirtipenne*. This is a rarely recorded species, and may not have been found in Devon before. So a promising start! Next to emerge was a female *Tipula lunata*, a common large cranefly: I found its puparium in among the debris of rotting wood. Over the next few weeks and to my delight, four *Dictenidia*

bimaculata, a species of comb-horn cranefly, appeared - the puparia of these rather spectacular insects were found poking out of the blocks of rotting wood. The final craneflies were two *Rhipidia uniseriata*, a scarce spotted-winged limoniid for which there are just one or two previous county records.



Rob Wolton's decaying ash tree (Photo. R.W.)

The rotting wood produced other flies too. These included four individuals of the empid *Hilara lurida*, the hybotid *Platypalpus parvicauda*, a couple of specimens of the small yellow acalypterate *Chyromya britannica* (Chyromyidae), and two species of fanniid – *Fannia gotlandica* which is a nationally scarce species known to be associated with rotting wood, and *F. umbrosa*. I had not previously recorded either the empid or *F. umbrosa* on the farm, nor indeed *D. hirtipenne* or *Rhipidia uniseriata*.

So, a good haul of flies, including some seldom encountered, for very little effort. A Malaise trap just 20m away and in place from April to November, caught just one of the above species – *Dictenidia bimaculata*!

The conservation value of rotting wood is of course well known, but the days of our ash trees appear numbered due to ash dieback disease: records from the decaying heartwood of this species may have particular value in the future.

My thanks to Julian Small for confirming the identity of the winter gnat.

Rob Wolton (Devon Group)

Cranefly report for Shropshire & elsewhere, 2016.

I would normally at this stage deliver an update in progress on work done solely in Shropshire but since I began working for the Natural England Field Unit (NEFU) in January I've had barely a few days recording in my home county. However sterling work has been done by Keith Fowler (KF) under the auspices of the Joy of Wildlife walks that Keith organises with a local group of extremely keen

Cranefly News 32 Spring 2017

volunteers so I'm going to mix and match my own records from various sites in England with Keith's and a few others I received from Shropshire in a joint report.

April: KF kicked off the cranefly year with an early sighting of *Scleroprocta sororcula* from Shawbury Heath (Shropshire) in late April, which is certainly the earliest Shropshire record, if not a new UK early record (24/04/16).

May: My first interesting sightings of the year were from Wybunbury Moss NNR (Cheshire) in May and I noted Triogma trisulcata (new to Cheshire), Prionocera pubescens, and Ormosia depilata. KF recorded Dactylolabis transversa and Dicranomyia sericata from a limestone quarry around Wenlock Edge (Shropshire). I swept Eloeophila verralli from the bank of the River Wey at Charterhouse to Eashing SSSI (Surrey) and Gonomyia tenella from Syon Park SSSI (also Surrey), whilst I found Phalacrocera replicata from wet lowland heath at Moor Farm SSSI in Lincolnshire. I recorded Lipsothrix nobilis, and L. errans from the traditional site of Lydebrook Dingle SSSI (Shropshire) on 26/05/16 and found Idioptera linnei on Wem Moss NNR (Shropshire) on the last day of the month. Habitat here for the species seems to have increased due to bog restoration works.

June: KF recorded the heathland limoniid Limonia dilutior at Bromlow Callow (Shropshire) on the 06/06/16). I recorded the saltmarsh species Dicranomyia sera and Molophilus pleuralis from Warton Marsh within the Morecambe Bay SSSI (Lancashire). I took part in a Bioblitz for the RSPB / BBC Springwatch at Arne SSSI (Dorset) and recorded 21 cranefly species on the day, the pick being Dolichopeza albipes, Gonomyia dentata, Helius pallirostris, Molophilus occultus, and Phylidorea squalens. I returned to Lincolnshire and recorded Gonomyia dentata at the neighbouring site to Moor Farm, Kirkby Moor SSSI and back in Shropshire recorded Idioptera linnei and Tricyphona schummeli at Fenn's, Whixall & Bettisfield Mosses NNR.

July: On the 1st of the month I found Nigrotipula nigra at coastal grassland in Morecambe Bay SSSI (Cumbria). In the New Forest (Hampshire) on the 05/07/16 I noted Gonomyia dentata and Erioptera nielseni and the latter species again two days later at Woolmer Forest (Hampshire) at the edge of a bog. I found Tipula helvola at the same site but in drier heathland habitat. A few days later I swept Idioptera pulchella from boggy wet heath at Fairoaks Moss in Staffordshire on the 11/07/16. Visiting dipterist Bryan Formstone noted Tipula pruinosa at Sweeney Fen (Shropshire) during the middle of the month. Probably my highlight of the year was a visit to Hedgecourt SSSI in Surrey, which is a fen and reedbed where I found Pilaria decolor, P. nigropunctata, and Tipula marginella, three craneflies new to me in a day! The record of Pilaria nigropunctata is particularly significant as it is quite a distance from other sightings in the UK. KF had a very good find at Nantmawr Quarry in Shropshire locating *Gonomyia conoviensis* on 27/07/16.

September: *Dicranomyia sera* was noted again in the Morecambe Bay SSSI but this time at saltmarsh close to the Roudsea Moss NNR in Cumbria. I visited several sites within the Dorset heathlands in the first and second weeks of the month and found *Molophilus occultus* widespread at valley mires with *Tipula melanoceros* from Winfrith Heath SSSI and Brenscombe Heath SSSI.

Thanks to Keith Fowler, Jim Cresswell, Nigel Jones, Bryan Formstone, Mags Cousins, Karen Boardman, Mariel Lubman, and John Bingham for supplying Shropshire records this year. Thanks to Georgina Terry, Pin Dhillon-Downey, Liz Biron, Julie Russ, Becky Cartwright, Becky Butters, Stephanie Rose, Rupert Randall, Mags Cousins, and Delphine Suty for arranging access and collecting permissions for the SSSI's visited.

Pete Boardman

Craneflies in Northamptonshire in 2016

Once again, the by-catch from the two MV moth traps run at Pitsford Nature Reserve included a number of craneflies (See Cranefly News 29, Spring 2015). Note that only on some days were diptera in the traps taken so this is not a complete list of the whole diptera bycatch. The following table shows the results.

Field meetings of the Northants and Peterborough Diptera Group provided a number of cranefly records.

Nigrotipula nigra was found at two other sites after last year's discovery. Both sites are adjacent to the original site and are also being managed by the Wildlife Trust. In total, four nature reserves are being amalgamated to form a new reserve, The Nene Wetlands, which should be fully open by Spring 2017.

There is still much of Northamptonshire with few or no records so there will be plenty of opportunity to expand our knowledge of the county's cranefly fauna over the next few years.

John Showers

Differentiating between *Tipula* (Savtshenkia) subnodicornis and Euphylidorea meigenii in the field.

Two discrete colonies of *Tipula (Savtshenkia) subnodicornis* have been found by the author within the Studland and Godlingston Heaths National Nature Reserve during spring 2014, and represent the first county records for Dorset.

The stronghold for this species lies in the uplands of western and northern Britain, and the nearest such record is from Pizwell on Dartmoor in 2002. However, in southern lowland Britain this species is restricted to isolated valley mires and there appear to be few recent records.

continued

| Species Tipulidae | MV1 Water's Edge | MV2 Woodland Clearing | Species Pediciidae & Limoniidae | MV1 Water's Edge | MV2 Woodland Clearing |
|-----------------------------|-------------------------------|-----------------------------|---|-------------------------------|-----------------------------|
| Nephrotoma appendiculata | 1 | | Tricyphona immaculata | | 2 |
| Nephrotoma cornicina | | 1 | Dicranomyia didyma | 1 | |
| Nephrotoma flavescens | 3 | | Dicranomyia modesta | 1 | |
| Nephrotoma quadrifaria | | 1 | Erioptera nielseni | | 1 |
| Tipula lateralis | 4 | 1 | Molophilus sp. | | 1 |
| Tipula lunata | | 2 | Ormosia sp. | | 1 |
| Tipula obsoleta | 1 | 1 | Ormosia nodulosa | | 1 |
| Tipula oleracea | | 1 | Phylidorea ferruginea | 1 | |
| Tipula paludosa | 3 | | Rhipidia maculata | | 1 |
| Tipula pierrei | 1 | | Symplecta pilipes | 8 | |
| Tipula subcunctans | | 1 | | | |
| Tipula varipennis | 1 | | | | |

Table showing Craneflies recorded from MV traps at Pitsford NR in 2016

Ormosia bicornis and *Tipula staegeri* have been noted separately from sampling in the wider countryside.

Three other scarcer species were also found. In July another *Erioptera verralli* was found by Brian Harding, this time at Yardley Chase. A male *Gnophomyia viridipennis* was swept by me from vegetation growing next to a pile of felled poplar trees in a poplar plantation in Sulby, NW Northants. At Yardley Chase Jeff Blimcow found *Dictenidia bimaculata* at two locations, one in the MoD section, and the other in the deer park (photo in newsletter header).

It has been known from the New Forest mires since 1894 when discovered here by Col. Yerbury, but the most recent records date from the 1960's and early 1970's.

There are also contemporaneous records from the Surrey Heaths, including Thursley Common and Chobham Common Sites of Special Scientific Interest (SSSIs). The most recent records are from an outlying valley mire within Snelsmore Common SSSI in Berkshire during the 1970's and 1980's. The flight period in Dorset commenced in mid-March 2014 and the Studland colony has been non-destructively surveyed using transects to gain more insight on its phenology and distribution on lowland mire.

Unfortunately the flight period of *T. subnodicornis* was found to overlap with the emergence of the equally abundant *Euphylidorea meigenii* and initially this prevented purely observation-based counts. Crudely, in the field both species are greyish and have brown proximal ends their wings.

Whilst these species are clearly identifiable in the net/hand, with experience, it is also easy to split these species in the field based of simple physical and behavioural characteristics. This is shown in the following table.

Craneflies in Lancashire and Cheshire in 2016

This is mainly an account of highlights of my own collecting and observations: not all specimens have yet been conclusively identified, and there may be more records to come in from others. Altogether in 2016, I collected 573 records covering 114 species, compared with figures of 457 and 91 respectively last year.

This includes Ptychopteridae and Trichoceridae as well as true craneflies. This may represent a real difference in abundance as my effort has remained fairly constant. I have revisited a small number of "core" sites such as Cotterill Clough and the Delamere Forest where I hope to build up as complete an inventory of species as I can. I have also visited a range of other sites once or twice to expand my

Table showing field characters differentiating *Tipula subnodicornis* and *Euphylidorea meigenii*.

| Characteristic | T. subnodicornis | E. meigenii |
|-------------------|---------------------------------------|--|
| Flight Behaviour | Fluttering, landing anywhere (even on | Flight more purposeful, usually landing |
| | water); tensioned on legs with wings | into taller vegetation; the wings folded |
| | set at 45 degrees to abdomen. | on settling to overlap abdomen. |
| Colour in flight | Silvery grey | Darker grey |
| Close observation | Stigma not obvious | Dark stigma on overlapping wings |

E. meigenii is widespread on wet heath and mire vegetation within the Poole Basin, often occurring even on very small stands. It also strays onto drier surrounding heathland vegetation.

By contrast, *T. subnodicornis* appears to be restricted to the larger valley mire systems and would appear to be absent from the smaller preserves, such as those occurring within the Borough of Poole which were extensively surveyed during spring 2011. At Studland, the colony appears to occur strictly within the most open parts of the mire.

Ashley Leftwich

Molophilus ater on Orkney

A spring stroll with my net in rough ground on the edge of woodland at Hestily, South Ronaldsay, Orkney (ND451866) on 02/05/2016 turned up hundreds of small, black Limoniidae mating on grass and heather. They appeared to be flightless, approximately 5mm long, black with short hairy wings and pale halteres. This seemed to be a mass emergence as when I returned two days later not one was to be found. I collected a specimen and keyed it out to Molophilus ater (Meigen, 1804).



Molophilus ater (Photo. Lee Johnson)

The record was confirmed by John Kramer who notes that they are common in the north of Scotland but previously unrecorded in Orkney and that this species probably plays an important role in moorland ecosystems. Lee Johnson coverage of habitats and locations across the area. Kidd and Brindle's 1959 list for these taxa over the whole of Lancashire and Cheshire included just 218 species so it seems a very good outcome to find over half this number in a single season.

Beginning with the Tipulidae, a notable observation appeared on the Facebook group page of the Lancashire and Cheshire Entomological Society.

This was a smart-phone video by Emily Traynor of a female *Tanyptera atrata* wandering around and ovipositing on a dead birch stump on 12 May at Hatchmere (SJ5571), a previous site for the species: the video can still be viewed on Facebook.

A female *Nephrotoma crocata* turned up on the lowland bog site of Cadishead Moss (SJ6995) on 18 July. This is now the 4th record of this species from the Manchester peatlands in the last few years, suggesting that this species is well established there. Another recurring phenomenon were the finds of *Nephrotoma dorsalis* in odd places within a short space of time: a male at Birchwood rail station (SJ6590) on 16th July, and females in our Warrington garden (SJ6393) on 21st July and at Lunt Meadows (SD3402) near Liverpool on 23rd July.

This species is normally associated with sandy rivers, so it seems that a dispersal tendency may be in play. I have previously observed *N. dorsalis* in July 2013 (7 records) and to a lesser extent in July 2014 (1 record).

Amongst 24 *Tipula* species on this year's list, there is a male *T. yerburyi* in the Delamere Forest (SJ5372), a species previously recorded in Cheshire only in 1985 and by Martin Drake in 2003.

At Holcroft Moss (SJ6893), an uncut lowland bog which is another of my "core" sites, it was pleasing to find two specimens of *T. subnodicornis* on 18 April.

continued

(Craneflies in Lancashire and Cheshire in 2016 - Continued)

This is a recognised acid mire species particularly associated with the uplands.

I found it at the same site in 2013, but not anywhere else on the Manchester Mosses. Another bog species *T. melanoceros* was abundant at Holcroft Moss on the 13 September, as it was last autumn, but is also seemingly absent from the other Manchester Mosses from which peat has been extensively extracted in this past. I suspect that more data is needed before these observations can be regarded as ecologically significant.



Tipula melanoceros: male terminalia (Photo. J.K.)

The best moment however was my first sighting of an adult *T. maxima* at Bold Moss (SJ5493) on 2 August. This is a heap of spoil dumped on a bog and given over to nature since the closure of Bold Colliery near St Helens in 1986. There is extensive birch woodland and patches of heath, but also areas of nearly bare shaley material vegetated with sparse mosses and lichens. Rather surprisingly a reed-bed has been created at the top, while there are relicts of the original wetland on one edge of the heap. The male *T. maxima* was about half-way between the two and sadly would not pose for a photo.

Alan Stubbs described the distinctive Limoniid *Achyrolimonia decemmaculata*, with spotted wings and a silver frons, as "widespread but generally scarce except some favoured districts". It was not on the 1959 list for Lancashire and Cheshire, so I felt that finding it at 4 separate locations in the Delamere Forest in 2014 was noteworthy. This year, it has appeared in our own garden on 27 May and at Bold Moss on 2 August.

A. decemmaculata is a dead-wood species and Pete Boardman states in his new Shropshire Craneflies that "it can occur in even the most unlikely occasions where only a little dead wood exists". It certainly seems that this species has increased in numbers and expanded its range locally in the 21st century.



Tipula maxima (Photo. Anon.)

A good find in the Delamere Forest (SJ5271) was a male *Dicranomyia lucida* on 6 July, swept from over a small stream. This too was not on the 1959 list.

At Cotterill Clough (SJ8083) I added to my personal list two more of the scarce species recorded by Harry Britten in the 1940s (see article in the previous edition of Cranefly News #31): two males and three females of *Molophilus niger* on 12 May and a male of *Paradelphomyia nielseni* on 7 September.

Moreover on the first of these dates I found two specimens of *Scleroprocta pentagonalis* to add to the site list. The wings of these specimens had become rather crumpled in the pooter (over-filled perhaps), so I detached one and flattened it out in a drop of water on a slide. John Kramer kindly confirmed my conclusion from the resulting photo.

I am now assembling a master database of the craneflies of Cheshire (VC58) from a download of the NBN data, the Cheshire LRC, and my own transcription of the Harry Britten record cards from Manchester Museum. This will be used to generate anew county checklist, which it will be interesting to compare with Pete Boardman's list for Shropshire. He has in fact himself increased the Cheshire list by finding *Triogma trisulcata* on 9 May this year at Wybunbury Moss (SJ6950), one of two national nature reserves in the county.

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Phil Brighton

Species New to Northamptonshire

Two new species have been added to the Northamptonshire list: *Ormosia bicornis* and *Tipula staegeri.*

Ormosia bicornis in Northamptonshire

On 15th September 2016 I was sweeping under sallows alongside a damp, but dried out pond in a former sand pit near Yardley Hastings, Northants. (grid ref. SP8758). The bank was covered in mosses. I took a small cranefly which, when I arrived home, I keyed out as a male *Ormosia bicornis*. Although I could only see part of the genitalia, they appeared to confirm my initial determination.

On checking its distribution and status, I had some doubts and contacted John Kramer for a second opinion. I sent him some rather poor photos and he said that it was worth examining the specimen on the basis of these. I subsequently met John and passed on the specimen. He dissected the genitalia and confirmed the identification as correct. He also photographed it at the Natural History Museum in London.

According to Falk 1991, *O. bicornis* is Vulnerable (RDB2) and had only been recorded from three post 1960 sites prior to the review. It had been recorded in Huntingdonshire and Oxfordshire in the past and this site is between these two counties. There are 27 observations of the species in the 2007 Cranefly Recording Scheme dataset on the NBN Gateway.

Its ecology was described as life history unknown, although the larvae possibly develop in soil or leaf litter in calcareous woodland. The site where this cranefly was found is an abandoned sand pit surrounded by fields which were sown with a wild flower mix a few years ago. The exact location was in the bottom of the pit with a high bank covered in scrub behind the dried out pond. The geology of the site is Quaternary Milton Sand overlying the Jurassic Blisworth Limestone Formation. The nearest wood is a planted ancient woodland site (PAWS) approximately 500m from the sand pit in a mostly intensively arable landscape.

I would like to thank the Compton Estate for permission to access the site, John Kramer for his assistance with identification and for photographing the specimen which has been placed in the collection at the Natural History Museum, London.

Tipula staegeri in Northamptonshire

On 5th October 2016 I took a male *Tipula staegeri* (subgenus *Savtshenkia*) at Sulby Gardens, Sulby, Northamptonshire (grid ref. SP6681). This is the first record for the county, although it is widespread to the North and West of this location. The area I was sweeping was alongside a small stream with grassy and mossy banks in woodland in a private garden that has been managed for wildlife for many years.

My thanks go to Alison Lowe, the owner of Sulby Gardens, for permission to sample there.

Reference

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John Showers

The Naming of Things

There are companies that earn significant sums of money by 're-branding', but like any change, you have to be sure that you get it right. One case in point is our Dipterists Forum, a venerable name which is known and respected throughout the dipterists' world. But when I speak to non-dipterist friends I say I'm going to a fly club meeting, or sometimes, to differentiate, I describe it as the National Fly Club. They know what I mean.

The naming of flies, and specifically, craneflies, is another example. I must admit that in my own head, when I'm alone in the countryside, I call specimens of *Lipsothrix* 'lemon-yellows'. And I call male *Tipula fascipennis* the 'antlered Tipula'. However, it would cause problems if I used these names anywhere outside my own head. Perhaps, were I part of the twitter generation, I would constantly tweet the contents of my mind to the world instead of doing other things.

In the Autumn 2016 Bulletin, Judy Webb confessed to calling *Triogma trisulcata* (Cylindrotomidae) the 'Dimple-cheeked Damsel'. Well, that is all very well for the females, but what about the males? My private name for them is 'warty-faced bog fly', or 'warty-face' for short - not at all feminine! And what about our other nations? What would they want to call it in Scotland or Wales? Well of course it doesn't matter, so long as we all use the same agreed name - *Triogma*, when we talk to each other.

Competition !

For those who like naming things what English name would you use for the large cranefly *Pedicia rivosa*?

John Kramer

Book Review

Shropshire Craneflies by Peter Boardman. Field Studies Council 2016. ISBN 978 1 90881 924 6

Order from: www.field-studies-

council.org/publications/pubs/shropshire-craneflies.aspx

Judging by the large amount of positive feedback I have had, this is a much-needed and very useful book.

It follows on from Pete's first Shropshire atlas, published in 2007. Since then, Pete has done a great deal of work and, in addition to the dot-maps, now updated, and with 21 additional species, it contains much helpful information to aid identification.

It is very well illustrated, with very many photos of living flies and their diagnostic parts, all of which will greatly reduce the uncertainty often generated by identification using text keys alone. The Shropshire environment is also well described with a section on land form and geology. Flight period and habitat notes are provided for each species, as well as many habitat pictures.

Dichotomous keys are used to take us to family or subfamily but the structure of the keys used to identify species is synoptic. A list of diagnostic characters is presented for a group, and this is worked through for each specimen. Each species has a unique set of characters from the list which permits identification. Look-alike species are also named so that a check can be made, but the point is made in the Introduction, that there will be times when the National keys will need to be consulted.

Shropshire has a diverse landscape which includes some excellent bogs and also upland sites. 245 taxa are covered, comprising 8 Trichoceridae (10 Nationally), 7 Ptychopteridae (7 Nationally) and 230 tipuloid craneflies (332 Nationally). So about two thirds of tipuloid species on the national checklist are covered, and most of these are the ones that will be met with in one's own county.

This is an indispensable book for anyone studying this group and it will be especially valuable to beginners.

John Kramer

A brachypterous population of *Dicranomyia sera* from Dornoch, Sutherland

Several examples of this cranefly were collected by David Horsfield, sweeping on saltmarsh on each side of the Dornoch Firth, at Dornoch Point (NH80-87-) and Morrich More (NH86-83-) in June 2008. Dicranomyia sera specimens usually have readily visible characteristic venation that places it in the right group but examples occur in which the wing size is reduced and the veins abbreviated (Photo). This can mean that identification attempted using wing characters alone is difficult. In these Scottish specimens the discal cell is oblique, diamond-shaped, and the cross-vein m-cu well before the discal cell. In one specimen the discal cell is absent. The reduced wing size also makes it very difficult to see the position of Sc2 and the apex of R in relation to each other or the costa. However the males of D. sera have distinctive dististyles and the females a black spot at the base of the ovipositor.

Wing length and width plus the length of thorax and abdomen were measured in the Dornoch samples and compared with specimens from elsewhere in the British Isles (Hunterian Museum & NHM, London). Although males and females appeared to exhibit the same tendencies only males are discussed here as the available specimens included too few females.

Specimens from Kent and Hampshire show wing lengths greater than the body length at a ratio of 1.29:1.00 (6.1: 4.7mm); sample size 12. Those from Dornoch have a ratio of 0.93:1.00 (3.8: 4.1mm); sample size of 9. It can be seen the latter have wings shorter than their bodies and there is an overall reduction in body size of about 13%. Specimens from Dornoch have mean wing length and width measurements of 3.8 and 0.6 mm; those from England 6.1 and 1.2 mm. Thus the wing dimensions of the Dornoch sample is disproportionately smaller in that the length is reduced by 38% but the width by 50% in comparison with examples from the south of England.

It would seem these reduced or brachypterous wings would limit flight capabilities. A comparable situation can be found in *Dicranota robusta*, an inhabitant of exposed upland streams, which has reduced wings and are reluctant flyers, usually restricted to skittering across the ground surface when disturbed (Hancock, 1990). The English populations of *D. sera* are assumed to be capable of sustained flight although we know of no direct observations on their flight behavior.



A female *D. sera* from Dornoch 2008, with reduced wings and characteristic black spot at base of ovipositor. (Photo. D. H.)

There are many other cranefly species living in exposed situations that have reduced wings or are fully brachypterous, including some montane *Tipula*. There will be a selective advantage in being flightless when occupying very exposed coastal habitats or remote islands. Freeman (1962) in identifying a brachypterous species of Symplecta from Gough Island in the South Atlantic referred back to the reduced wings that can occur with *S. stictica* (Meigen) in Britain on exposed saltmarshes. Stubbs (2003) provides specific detail - those with stunted wings are found in lower and middle saltmarsh compared with normal fully developed individuals in higher zones. Our conclusion is that the *D. sera* Dornoch populations exhibit a similar response to exposure in this same habitat.

D. sera is regarded as a scarce upper saltmarsh species mostly associated with *Juncus gerardii*; ecological data are given by Alan Stubbs (2003). It seems to have been seldom collected in Scotland with records from near Inverness, Fort William and the Solway coast (dots on the NBN Gateway map for the species) and Culbin Sands (Stubbs, 2014). An older Scottish record from St Kilda is given by Edwards and Collin (1932) and repeated by Waterston (1981) and Skidmore (2008). No matching Scottish specimens have been found in either NMS or the Hunterian Museum, University of Glasgow. Specimens from Dornoch collected in 2008 have been deposited in these two institutions.

Acknowledgement

Staff at the Natural History Museum (London) kindly allowed access to the collections for measurements of the S. English specimens.

E. Geoffrey Hancock & and David Horsfield. The Hunterian (Zoology Museum), University of Glasgow (EGH). National Museums Scotland, Nat. Mus. Collections Centre (DH).

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Especial thanks to all contributors.

The **Copy Deadline** for the Autumn issue will be 15th July 2017. Please send copy and records to john.kramer@btinternet.com

Soldierflies and Allies Recording Scheme

Newsletter 4, spring 2017

Edited by Martin C. Harvey ISSN 2053-471X (print) ISSN 2053-4728 (online)



The Anthracite Bee-fly Anthrax anthrax has been confirmed in Britain for the first time - see page 2. Photo by Rob Mills.

Welcome to the fourth Soldierflies and Allies Recording Scheme newsletter. Following circulation with the Dipterists Forum Bulletin it will be available online via the recording scheme website.

Last year was an exciting one, with a new species confirmed in Britain and another rediscovered after a gap of 26 years (see page 2). More news of some of our rarer species is given on pages 4, 6 and 9.

The recording scheme is not just about rarities though! The life histories of many of the species are still poorly known, and it is good to have information on breeding substrates for the Twin-spot Centurion (page 7) and how to find the larvae of the Least Water-snipefly (page 10). And 2016 saw the first ever "Bee-fly Watch", which was successful in drawing in new records and new recorders – I can't wait to see how 2017 compares.

Updates on various other recording scheme activities is on page 8, including information on where your records go and how they are used.

Thanks to everyone who has contributed records, photos and articles. Have a great season in 2017! Martin Harvey

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

British Soldierflies and their Allies by Alan Stubbs and Martin Drake is back in print as an enlarged second edition. The book includes all the families covered by the Recording Scheme. The additional sixteen pages of the new edition arise mainly from incorporating many observations on the biology and distribution of the flies that have been made and published during the last twelve years. There are also a few minor corrections to the keys here and there, and a more substantial improvement to the keys to Tabanidae (horseflies).

The price to members of Dipterists Forum or BENHS is £20 (£36 for nonmembers). The book can be ordered via the BENHS website: www.benhs.org.uk/publications/british-soldierflies-and-their-allies-secondedition



A new bee-fly for Britain

A highlight of 2016 was a report from Rob Mills in Cambridgeshire of an unusual-looking fly. Rob circulated a photo of this fly on Twitter (see photo on page 1), and with help from Steven Falk and others it was soon identified as the bee-fly *Anthrax anthrax* (subsequently confirmed from the photo by David Gibbs). This fly is a parasitoid of hole-nesting solitary bees, and sure enough Rob had found it investigating the 'bee hotel' in his garden.



There are specimens of *Anthrax anthrax* from 1929–1930 that are labelled as being from Leicestershire, but the provenance of these has always been doubted and the fly is not on the British list. Full details of the Cambridgeshire discovery have been submitted for publication in Dipterists Digest, in which we propose the English name "Anthracite Bee-fly" as an appropriate name to reflect the dark colour of the fly and the derivation of the name "*Anthrax*" from the Greek for "coal".

Two of the unconfirmed British specimens from 1929–1930. Photographed by Ray Morris at the Leicestershire Collections Resources Centre.

This fly has been spreading on the continent and is now a frequent visitor to

garden bee hotels in the Netherlands. It is too early to say whether it has bred in Britain, but if it does manage to establish itself it could well become a familiar sight. One to watch out for!

For further photos and information on the spread of this species in the Netherlands see this article by John Smit: www.naturetoday.com/intl/nl/nature-reports/message/?msg=18653

Robberfly reappears

One of the most enigmatic species on the British list is the Devon Red-legged Robberfly *Neomochtherus pallipes*. The first record was made on the south Devon coast by Mike Edwards in 1990, and until last summer that remained the only British record. A second British sighting of any sort would have been a welcome surprise, but in summer 2016 the extraordinary discovery was made of an apparently thriving colony in Shropshire, some 180 miles north of, and 26 years after, the original record. Congratulations to Nigel Jones for the original discovery, which was fully documented during subsequent visits by Nigel and colleagues including Malcolm Smart.



The rediscovered Neomochtherus pallipes by Nigel Jones.

In habitat terms the Devon and Shropshire sites are not so different, as in both places the fly seems to be associated with warm grassland on sheltered slopes that are broken up with exposed rocks and boulders. Full details will be published in Dipterists Digest.

If it can turn up in Devon and Shropshire where might it be found next? If you know of any similar-looking habitat it would be well worth a closer look at the robberflies next summer.

 Go to Nigel Jones' Flickr pages for some superb photos of this robberfly and its Shropshire habitat: www.flickr.com/photos/insectman/albums/72157669976768311/with/28069174311/

The 2016 Shropshire discovery is some 180 miles north of the 1990 Devon record.



Nigel Jones says he was "feeling pretty darned chuffed", as well he should! (Photo by Malcolm Smart.)



Update: Soldierflies, their Allies and Conopidae of Surrey

The *Haematopota grandis* female referred to on page 5 of this newsletter appeared in time for the species to be included in note form in the Surrey Wildlife Trust publication *Soldierflies, their Allies and Conopidae of Surrey* (2015) by David W. Baldock and Jeremy P. Early. That took the total of species recorded in the vice-county to 104. Another was added in 2016 when Mike Edwards took a Downland Villa (*Villa cingulata*) at Box Hill (see page 9). In recent years this bee-fly had been recorded several times at Bushy Park, just over the county boundary with Middlesex.

Other notable Surrey records in 2016 were led by a female Tree Snipefly (*Chrysopilus laetus*), which landed on an oak stump in Jeremy Early's garden early in July. She appeared to have been egg-laying somewhere nearby – the habitat fits the profile with the garden backing on to old woodland containing beech and



Tree Snipefly by Jeremy Early.

poplar. This was the seventh record for the vice-county and the most southerly following one at Mickleham 8km away in 2013 (the latter was from a survey not placed in the public domain until this year).

Soldierflies, their Allies and Conopidae of Surrey is hard backed with 208 pages and 32 colour plates. It is available for £18 plus £3 p&p from Surrey Wildlife Trust at <u>www.surreywildlifegifts.org.uk</u> or by phoning 01483 795440/795488.

Bee-fly Watch 2016

The Dark-edged Bee-fly, *Bombylius major*, is the most familiar of all the species covered by the recording scheme among the general public. In spring 2016 I decided to experiment with promoting a 'bee-fly watch' project to get more people looking out for this attractive fly, and to send in more records. This was done an a fairly ad hoc basis - there was no major campaign, no funding, no special tools other than what is freely available online. But a combination of a small amount of publicity on Twitter and Facebook, plus the use of iRecord to collate the records and



provide feedback to recorders, proved to be very effective.

Before 2016 the recording scheme database held 4,166 records of *Bombylius major*, and the total number of records on

the NBN Gateway was not much more. Bee-fly Watch 2016 produced an additional 779 records - nearly 20% of the total



Records received during 2016 for *Bombylius* major (above) and *Bombylius discolor* (left).

number of records for all time! In addition, 32 records of the scarcer Dotted Bee-fly *Bombylius discolor* were contributed, many from its south-west strongholds. Around 370 people contributed records, with a special mention for top recorder Nigel Cottle with 40 records.

In 2016 the first sighting of Dark-edged Bee-fly was reported on 13 March – will we beat that in 2017? April was the peak month for records, although cold spells reduced sightings from time to time. I was delighted to see a primary school in Kent pick up on the interest in bee-flies, and record Dark-edged Beefly from their school grounds. Pupils went on to do project work on the species, and were pleased to see their dot appear on the iRecord maps. They even sent me some of their illustrations of the fly!

Bee-fly Watch 2016 was good fun, produced lots of records, and didn't require too much time to organise, so there is every reason to run it again in 2017. Watch the recording scheme website for news in March and join in if you can.



Dark-edged Bee-fly illustrated by Loose Primary School (left); records per month in 2016 (right).



Long-horned Cleg in Surrey

by Jeremy Early

The Long-horned Cleg (Haematopota grandis) has never been common in Britain and almost 30 years ago it was designated 'Rare' in the Red Data Book. Records have been sporadic since then, with most coming from East Suffolk, North Essex, South Essex, South Hampshire, West Gloucestershire and Carmarthenshire. There are none further north than Norfolk and North Wales and the only records any distance from the coast were at Pamber Forest in North Hampshire in 1961, which is no longer accepted as valid, and at Balcombe in West Sussex. The latter, as H. longicornis, was referred



Long-horned Cleg by Jeremy Early.

to by Newman in *The Entomologist* in 1869 and is in the Hope Collection at the University of Oxford without any details apart from the name.

A female which appeared in the gazebo in my garden in Reigate on 7 September 2015, nearly 50km from the nearest coast southwards, can thus be regarded as the first confirmed record from a non-coastal vicecounty. The first aspect which struck me was the size of the horsefly. There is little livestock locally but there are numerous horses used for recreation, plus roe deer, and *H. pluvialis* is relatively common. The female in the gazebo was almost half as big again as *H. pluvialis*, measuring 13mm. The long, straight antennae with grey dusting indicated it must be either *H. grandis* or *H. italica* – the latter has not been recorded in Britain but is present in France, The Netherlands and Denmark. Grey sub-lateral spots on tergites 2-6 confirmed the specimen as *H. grandis*.

In the modern era the closest previous records to Surrey were from Pagham Harbour in West Sussex in the early 1990s, a distance of around 80km. Much older and somewhat nearer records from the North Kent marshes are presumed not relevant given that the sites have been heavily developed. The lack of records inland is almost certainly a result of *H. grandis* being at the edge of its range in Britain. Together with *H. bigoti* it is one of only two species among the British tabanids classified by Olsufjev (1977, 1980) as belonging in the Mediterranean sub-region fauna group; all the others are in the Boreal-Eurasian sub-region fauna group or Finland.

In the southern part of the range, including Turkey and Morocco, there is no particular link with coastal habitats. Research by Ganeva and Ivanov (2015) in the Central Balkan Mountains in Bulgaria showed 48 specimens of *H. grandis* taken in 2010-2011 in a village at an elevation of 540 metres, 200km from the coast. By comparison, there were 30 specimens of H. *pluvialis* in the village and none of the regionally much scarcer *H. italica* and *H. longeantennata*.

Conceivably the predicted warmer climatic conditions through this century may enable what is a handsome species to expand its range in Britain.

Soldierflies and allies in Lancashire and Cheshire

by Phil Brighton

North-west England is at the edge of the range for many of the southern species in this group, so perhaps it is inevitable that records of many species are very sporadic. But 2016 does seem to have been a rather poor year: the only *Stratiomys* soldierfly reported so far has been a single *potamida*, and I have seen none myself. The only *Oxycera* I saw was *rara* and I did not find *Oplodontha viridula*. Nor have there been any reports of *Bombylius major* from the spring – although its range extends well into Scotland, it always seems to have been very local in this region.

On the plus side, I found the yellow-legged robberfly *Dioctria linearis* by sweeping in its characteristic woodland habitat at Etherow Country Park (SJ9791) in the Peak District foothills on 15 August. This is only the third or fourth Cheshire record, and it has not been recorded in Lancashire according to NBN, so this seems to on the limit of its known range. Equally notable is another robberfly, probably *Machimus cingulatus*, which I swept from barely vegetated flat sandy ground at Freshfield Dune Heath, a Lancashire Wildlife Trust site just inland of the Formby dune system. The dark front femora with orange apices did at first seem indicative of the Irish Robberfly *M. cowini*. I have carefully studied Malcolm's Smart's 2005 paper (available on the Recording Scheme website) to arrive at my identification, but hope to get a final decision when I can show Malcolm the specimen. A postero-dorsal orange stripe is just visible on the front femora if viewed from the right angle, and the hairs under the abdomen strongly point to *cingulatus* when compared with Malcolm's photos.

The only previous records of *M. cingulatus* in Cheshire and South Lancashire are from the Wirral, once in the 19th century and twice between 1965 and 1995, and one by the National Trust at Formby in 2009, so either of the species seems equally likely. It is also worth noting that NBN has 49 records of the dune robberfly *Philonicus albiceps* from this locality dating from 1920 through to 2009, so the *Machimus* species could well be a recent arrival.

Followers of the UK Hoverflies Facebook group will be well aware of the great boost to recording from digital photographs posted there and checked by Roger Morris and his team. The potential for observant



Villa venusta by Tony Conway.

people who are not diptera specialists to add notable records is becoming noticeable for the soldierflies and allies as well. A bee-fly from the genus *Villa* was photographed by Tony Conway at Seaforth nature reserve near the Liverpool docks on 14 August. While this photograph in itself does not allow determination to species, the confinement of *V. cingulata* and *V. venusta* to specific habitats in small areas of southern England means that this can be safely recorded as *V. modesta*. There have been half-or-dozen or so other records on the South Lancashire dune systems.

The final excitement of the year was also made possible by digital photography. On the eastern side of the region, the Woodland Trust has recently acquired a large tract of land from Bolton Council: the Smithills estate extends from the north-west

fringe of the town up to the blanket bog at nearly 1,500 feet on Winter Hill, covering a range of agricultural, scrub and grassland habitats in between and traversed by extensive wooded cloughs.

I missed an initial Bioblitz in May but visited the Trust office in the Tudor Smithills Hall to discuss plans for Diptera recording with Russ Hedley. He had a spreadsheet with about a dozen diptera records from the



Rhagio notatus by Colin Rowan.

Bioblitz and one leapt out at me – *Rhagio notatus*. I knew from my ongoing work on the soldierflies and allies records for Lancashire and Cheshire that this had been recorded only once before, by Harry Britten on the Wirral in 1950, so this would have been a definite "probably not" had not the Greater Manchester Local Records Centre produced the photograph (left) by the original observer, Colin Rowan. Having not seen the species myself, I was somewhat uncertain about the wing markings, but the dark front femora have been confirmed as good evidence by Martin Drake and Martin Harvey. In England this fly is largely confined to upland areas of the North and seems to be very local and I take this find as a good omen for further visits to the area as a contrast to my usual lowland haunts.

Many thanks to all the organisations and individuals who have helped make these discoveries possible, and many others outside the scope of this brief article.

Sargus bipunctatus female found in horse dung

by Anthony Taylor and David Iliff (davidiliff@talk21.com)

On 4 October 2009 the Gloucestershire Invertebrate Group (GIG) held a field meeting at Strawberry Banks (SO910033), near Oakridge, Gloucestershire. This Gloucester Wildlife Trust Reserve is a west-facing oolitic limestone herb-rich grassland site with blackthorn, hawthorn and hazel scrub and some ash, holly and oak. Along the bottom of the banks is a stream with some marsh development. The site is grazed by ponies.

During the course of the meeting Tony Taylor, the Gloucestershire Naturalists Society (GNS) recorder of Aculeate Hymenoptera, found a stratiomyid within some of the horse dung, and passed it to David Iliff who determined it as a very fresh (though apparently not teneral) female Twin-spot Centurion Sargus bipunctatus.

The pile of horse dung was located at the bottom of the steep south-westerly grassland slope. It was reasonably fresh, i.e. it was dry on the surface but not crusty and when opened it ripped apart rather than broke and was of a sticky consistency. The fly was right in the middle of the dung, about 30-40mm from the surface but still 50mm or so from the ground beneath. There was no obvious cell at the fly's location and no pupal remains. The dung only received a cursory inspection on this occasion so it is not known whether any other individuals may have been present or in any other stage of development.



Sargus bipunctatus at Strawberry Banks.

In *British Soldierflies* (2002) Stubbs and Drake state that all four British species of *Sargus* have been reported as breeding in cow dung, but we are not aware of any previous observations of an association of the genus with horse dung.

Recording scheme updates and other news

The main recording scheme database currently contains 9,560 records, with several thousand more awaiting import (mostly from spreadsheets sent in to the scheme in recent years). The preferred route for receiving records is via the online iRecord system, which makes it easy to incorporate data and share it via the National Biodiversity Network, but records via spreadsheet and other routes are very welcome – see: www.brc.ac.uk/soldierflies-and-allies/records



Data use

Data from the recording scheme has been provided to the NBN Gateway, and will be carried over the the new NBN Atlas that is scheduled to replace the Gateway in April 2017. The recording scheme aims to make data widely available for others to use, so that records can be used for conservation and research, and to enable other entomologists to access them. See: www.brc.ac.uk/soldierflies-and-allies/node/48

Recording scheme data has also been supplied direct to a number of project recently, including:

- Buglife's "Important Invertebrate Areas" project, which aims to map the parts of the UK that support
 populations of the rarest species across many invertebrate groups. See: <u>www.brc.ac.uk/soldierflies-and</u>
 <u>-allies/node/46</u>
- The "State of Nature 2016" report: data from the scheme was analysed by scientists at CEH for inclusion in this report, which was led by the RSPB and summarises trends across a wide range of species. The news is not good, with the headline figures from the report pointing out that many species continue to decline. CEH is carrying out further work on species trends which will be published in future. See: www.work/stateofnature2016/

None of the above would be possible if people didn't send in their records to the scheme – many thanks to all who contribute, and apologies for those times when I am slow to respond!



Training course

Thanks to British Entomological and Natural History Society for hosting another soldierflies and allies training course last November. This was well attended by enthusiastic dipterists - hopefully it will bear fruit in the form of lots of new records next year! Handouts from the course are now available on the recording scheme website (see below).

Website

There have been a number of recent additions to

the website:

- Notes and illustrations to support the Stubbs and Drake identification keys: <u>www.brc.ac.uk/soldierflies-and-allies/ID_notes</u>
- Presentation, checklist and handouts from events and training courses during 2016: <u>www.brc.ac.uk/</u> soldierflies-and-allies/resources_other
- Guide to distinguishing the common Downlooker Snipefly *Rhagio scolopaceus* from the rare Yellow Downlooker Snipefly *Rhagio strigosus*: www.brc.ac.uk/soldierflies-and-allies/downlooker_id
- Malcolm Smart's 2005 *Dipterists Digest* paper on identifying Machimus species is available to download: <u>www.brc.ac.uk/soldierflies-and-allies/node/44</u>

Social media

Don't forget that you can join in with the debate, chat and identification assistance via Twitter and Facebook (but please add your records to iRecord as well!):

- Twitter: <u>@SoldierfliesRS</u>
- Facebook: <u>British Soldierflies and Allies</u>

Thanks to everyone who has helped with identification queries on Facebook, especially Simon Knott, Ian Andrews and Malcolm Smart.

Other snippets

Dipterists Forum commissioned a splendid video on the joys of studying, recording and conserving flies. If you haven't see it yet you are in for a treat: <u>vimeo.com/185680908</u>.

Frank Van de Meutter, Ralf Gyselings and Erika Van den Bergh have published a new paper on horsefly ecology:

• The occurrence and ecological requirements of the horseflies (Tabanidae) of brackish marshes in Belgium (Journal of Insect Conservation, 2016, Volume 20, pp 989–997).

This provides valuable information on the habitat



The smiling face of Alan Stubbs – one of the stars of the Dipterists Forum video.

associations of a number of species that also occur in the UK.

A high groundwater table and suitable levels of salinity seem to be required for the rarer species. Unfortunately not open-access, but the summary is at <u>link.springer.com/10.1007/s10841-016-9931-5</u>

Notable records

Just a few highlights from the records submitted in 2016:



Heath Bee-fly by Steven Crellin.

• Heath Bee-fly *Bombylius minor* (Bombyliidae) is now very rare on the southern English coast and it is good to hear from Steven Crellin that it continues to survive on the Isle of Man.

• Downland Villa *Villa cingulata* (Bombyliidae) continues to spread. with two new county records in 2016, both from Mike Edwards: West Sussex (3 July, Heyshott Down SSSI) and Surrey (2 July, Box Hill). Larvae of *Villa* species are thought to be parasitoids of moth caterpillars, but the actual hosts are not known. Graeme Lyons suggests that Dusky Sallow caterpillars are a potential host, as they are abundant on chalk grassland at this the right time of

year and are a suitable-sized host. Another possibility would be Flounced Rustic. Collaboration with people who rear moths would be welcome!

• Barred Green Colonel Odontomyia hydroleon (Stratiomyidae) was recorded by Ian Andrews at its only

known English site in Yorkshire. It is known from just one other site in Wales, so is one of our rarest species, and news of its continued existence in England is most welcome.

- The Pine Black Zabrachia tenella (Stratiomyidae) is a small, black soldierfly related to the more familiar *Pachygaster* species. It is associated with pine trees and is probably under-recorded. Pete Boardman reports it from Hertfordshire and Middlesex.
- Black Deerfly Chrysops sepulchralis (Tabanidae) was reported from Cumbria via iRecord, when Jody Ferguson of Cumbria Wildlife Trust photographed it at Eycott Hill Nature Reserve on 7 July. This rare fly is mostly known from south-west England, but there have also been recent records from south-west Scotland. At first I thought Jody's record would be the first for Cumbria, but there is apparently an earlier one from the same area in 2014, for which details have not yet reached the recording scheme.



Barred Green Colonel by Ian Andrews.

Sampling spiky snipeflies

The Soldierflies and Allies Recording Scheme doesn't often receive records of fly larvae, so when this photo (right) arrived via iRecord it stood out from the rest.

This rather odd-looking creature is the larva of the Least Water-snipefly, *Atrichops crassipes*. It is a rare species, or at least rarely recorded, but the above is just one of several records made in recent years by John St Pierre in East Sussex. These are the first records I'm aware of for that county since 1983.



Larva of the Least Water-snipefly, by John St Pierre.

John found them during sampling for freshwater invertebrates as part of his work with the Ouse & Adur Rivers Trust. John says:

"The ones we have found are all in the catchment of the Sussex River Ouse. We found one in the main river in 2013, the rest being from tributaries (2013 seemed to be a particularly good year for them). In all cases the substrate was clay/gravel mostly in riffle sections. They were captured using the standard 3 minute kick sample in the BMWP protocol."

It is excellent to get some new records for this species, and I wonder whether it could be found more widely by others carrying out freshwater sampling – if that's something you're involved with please look out for it!

A photo of the adult fly taken by Rui Andrade can be seen on Flickr at flic.kr/p/zSsXCU

Records welcome!

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

- Information on recording: <u>www.brc.ac.uk/soldierflies-and-allies/records</u>
- All the scheme records on iRecord: <u>www.brc.ac.uk/</u> irecord/join/soldierflies-and-allies-recording-scheme
- Identification information: <u>www.brc.ac.uk/soldierflies-</u> and-allies/resources

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





My thanks to everyone who has contributed articles for this newsletter. The subjects include two scarce hoverflies, *Syrphus rectus* and *Eristalis similis*, that I suspect few of us have knowingly seen as they could so easily be mistaken for more common members of their respective genera. Martin Speight's piece on *Milesia crabroniformis* reminds me that the Hornet (*Vespa crabro*) is surely one of the most charismatic of insects and also one that has a number of similarly charismatic mimics. Examples are the Hornet Moth (*Sesia apiformis*) and the Lunar Hornet Moth (*S. bombiformis*), and, among the Diptera, several that not only mimic the colours of the Hornet but are also, like the Hornet, the largest British members of their respective families, such as The Hornet Robberfly (*Asilus crabroniformis*), *Conops vesicularis*, and of course our largest hoverfly *Volucella zonaria*, a female of which is shown at the top right of this page.

When G.H Verrall published his "Syrphidae of Great Britain" on the first day of the 20th Century, *V. zonaria* was not listed as a British species, though it does appear at the end of his book in a list of "Reputed British Syrphidae" on the basis of apparently disputed claims that two examples had been found in the New Forest. Thus the British status of *V. zonaria* at Verrall's time was not dissimilar to that of *Milesia crabroniformis* today. *V. zonaria* is on average about 20% larger than any other British hoverfly. I have never seen *Milesia crabroniformis*, and may never do so, but being a further 20% larger than *V. zonaria* it must be a splendid sight.

Copy for **Hoverfly Newsletter No. 63** (which is expected to be issued with the Autumn 2017 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 June 2017.

Hoverfly Recording Scheme Update, Winter 2016

Stuart Ball, Roger Morris, Ian Andrews, Joan Childs, Ellie Rotheray and Geoff Wilkinson c/o 7 Vine Street, Stamford, Lincolnshire

Observant readers will note that the Hoverfly Recording Scheme team continues to grow. We now have six active members of the team, with a range of developing roles. This time we welcome Geoff Wilkinson who has a strong interest in hoverfly larvae and has joined forces with Ellie to grow the UK Hoverfly Larvae Facebook group; he will also be helping Roger to extract data from the main Facebook page. The level of active interest is growing very rapidly and it is likely that the team will grow bigger as we tackle the issues of managing incoming data and making sure that a reliable verification and mentoring service can be provided.

Overview of 2016

This has been a strange year. It started with great promise; that is until early July, when there was a period of extremely high temperatures in many parts of the country. This change was accompanied by a dramatic drop in the numbers of hoverflies that has been remarked upon by many observers. We are still compiling the data from recorders, so its full effects won't be fully apparent for some time, but the phenology histogram from the photographic dataset seems to bear this out. In most years, records for July far outstrip the numbers for June, but this year there was a definite hiccup. The data for August, September and October suggest that these months were closer to the norm, but at this point we did recruit several very active new recorders, so it is possible that the data are more reflective of recorder effort than of a hoverfly population trend. We really need to see what the data look like for some of our more active traditional recorders.



Figure 1. Breakdown of the proportion of 2016 records by month generated by the UK Hoverflies Facebook group and extracted from other photographic media.

Despite the slump in records in mid-summer, the year generated a range of interesting records, including *Callicera spinolae* from the London area, perhaps indicating that this species is undergoing an expansion of range. Records of other noteworthy species include *Callicera aurata*, *Cheilosia caerulescens*, *Cheilosia soror*, *Doros profuges*, *Meligramma guttatum*, *Mallota cimbiciformis*, *Meligramma trianguliferum*, *Parasyrphus nigritarsis*, *Pelecocera tricincta*, *Pocota personata* and *Xanthandrus comtus*.

Range expansion

Stuart has been investigating new ways of analysing northward spread in hoverflies. There are cases such as those of *Volucella inanis* and *V. zonaria* that are well-known, but it is far harder to be sure about some others. Stuart's system involves analysis of the median OSGB grid reference y-coordinate (in km) for the 10 most northerly records of each species in 5 year time intervals. The following maps show the distribution of *Cheilosia soror* from 1976 to 2015 with the median coordinate of the 10 most northerly records indicated by a dotted line.



Figure 2. Northward range change in *Cheilosia soror* between 1976 and 2015. The dashed horizontal line indicates the median y-coordinate of the 10 most northerly records.



Figure 3. Plot of the latitude of the ten most northerly records of *Cheilosia soror* in five-year intervals since 1976. The substantial change in range appears to have occurred between 1995 and 2000.

This particular analysis highlights not only the range change of *Cheilosia soror*, but also the relative abundance of this species. Roger's recording in 2016 found that this has become one of the commonest *Cheilosia* in parts of SE England which raises questions about its ecology because with such a wide distribution it is unlikely to be associated solely with truffles.

The Carrot Flower Challenge

One of the members of the UK Hoverflies Facebook page (Kevin Bandage) demonstrated the potential of carrot flowers as a lure by planting mature carrots in pots and then effectively using these as a 'Brackenbury Lure'. Those who don't remember Austin Brackenbury have missed his wonderful stories of Oughtibridge Signal Box where he used to pick hogweed and other umbels and put them in water near his signal box. Austin then recorded the visitors to these flowers and amassed a fantastic list of hoverflies; hence the 'Brackenbury Lure'.

We think there is potential to develop a yearly event for the Recording Scheme, based on the idea of planting mature carrots (and possibly parsnips) in pots and in gardens. It is an idea that will be trialled by some members of the UK Hoverflies Facebook group and will be reported on next year. Anybody who is interested in participating should write to Roger (syrphid58@gmail.com) who will circulate instructions.

2015 Photographic report

A report exploring data extracted from photographs in 2015 has been produced. It is the second example of what is likely to become a regular Recording Scheme product and can be downloaded from http://www.bacoastal.co.uk/Entomology/2016-Photo-report.pdf. The report shows how this branch of recording has evolved, with a substantial cohort of very active recorders generating a remarkable number of records. Over 150 species were recorded in 2015 but some genera are substantially under-represented: *Cheilosia, Sphaerophoria*, Pipizines, and *Platycheirus* figuring relatively poorly.

This trend in recording has continued into 2016 and now we have a group of about 60 recorders who, together, are generating well over 20,000 records a year. The significance of this growth in effort is noteworthy because until 2012 the scheme generally averaged 20-25,000 records from all contributors each year. The new recorders mean that there has been considerable growth in the numbers of yearly records.

Inevitably, the data are dominated by a relatively small number of species, but this emphasis is not dissimilar to the composition of data received from a sizeable number of existing contributors.

The data include a number of noteworthy observations, including important records of species such as *Doros profuges* and *Callicera spinolae*. One member has shown great proficiency in finding *Pelecocera tricincta*, and a very high proportion of the data for *Cheilosia caerulescens* come from photographs.

We are starting to see a slight shift in recorder behaviours with several active photographers retaining specimens that have been photographed. In this way, we are starting to build up a reliable collection of photographs of live animals in challenging genera (especially *Cheilosia*). The quality of many photographs is quite remarkable, and as time has passed the skills of these recorders have evolved too. With regular feedback they have started to capture animals from a variety of angles, thereby greatly improving the chances of arriving at a reliable determination.

An example of this paradigm shift is provided by the article in this newsletter by John Bridges, who photographed *Eristalis similis* but was not sure what it was. By good chance, he retained the specimen and produced a series of excellent stacked shots that help to explain the critical features of *E. similis*.

iRecord

Use of iRecord has grown over the past few years and now involves between 6,000 and 7,000 records a year. Unlike other schemes, we have not promoted its use because it does place additional demands on our capacity to verify data. We are doing our best to keep on top of verification, but records do build up during the summer and will only be verified in the winter once the summer workload has abated. In general, iRecord is useful where hoverfly recording is not a central part of your interest - it is great for occasional incidental records. Those members who contribute large datasets are encouraged to continue to use existing mechanisms (spreadsheets and database transfers).

Over the last two years, Roger has made a concerted effort to document the problems found on iRecord. The statistics for 2016 are presented here:

| | No photo | Photo |
|--------------------|----------|-------|
| Time (hrs) | 9.28 | 12.52 |
| Records | 3820 | 2446 |
| Records queried | 27 | 0 |
| Records rejected | 2 | 0 |
| Wrong ID | 0 | 99 |
| ID partially wrong | 0 | 118 |
| Non Hoverfly | 0 | 2 |
| Uncertain family | 0 | 2 |

Table 1. Basic statistics for iRecord data verified in 2016

The data show how tricky it is to verify data without a supporting specimen or photograph; one simply has to work on a knowledge of the recorder's ability and the location and timing of the record. Occasionally a record stands out as wrong. For example, a record of *Eristalis cryptarum* in Cumbria was clearly unlikely and therefore rejected. It transpired that this arose because the common name "The Bog Hoverfly" has been used for *E. cryptarum*, but is also applied to *Sericomyia silentis*! This tells an important story about the dangers of using common names!

Checking photographic submission, it was noteworthy that a sizeable proportion of the records that were rejected involved photographs that did not sufficiently depict the critical features to offer a firm diagnosis. Problems are especially common in *Eristalis, Syrphus, Eupeodes* and *Sphaerophoria*.

Rumours of Milesia

Martin C D Speight

Rumoured sightings of Europe's largest syrphid, *Milesia crabroniformis* (Fab.) in SW England remain unsubstantiated. One might wonder how it is possible for there to be much doubt, if someone saw this insect, whether it really was *M. crabroniformis*. That it is a mimic of the European hornet, *Vespa crabro* L., is widely recognised, though when you see model and mimic side by side, as in Figure 1, they don't look especially difficult to tell apart. But this fly is by no means such an obvious insect as it seems to be.



Figure 1: *Milesia crabroniformis*: female, top; dark male, left; pale male, right; worker *of Vespa crabro*: bottom (photos: Martin C D Speight)

The differences between *M. crabroniformis* in a photo and "in the flesh" are considerable. *Milesia* crabroniformis appears in late summer, and is on the wing until the beginning of October. Throughout this period hornets are very busy around flowers, hunting honey bees and bumblebees in particular. Both the hornet and *M. crabroniformis* are oak forest insects and are frequently to be found flying round the same

Hoverfly Newsletter #62

flowers, at the same time. Roadside stands of Sambucus ebulus are a good place to look for M. crabroniformis at the start of its flight period, and flowering trusses of ivy (Hedera) are where you find it towards the close of its season. Hornets can also be much in evidence in both situations. The hornets fly swiftly over, through and round a clump of Sambucus ebulus, darting in to grab a luckless bee engrossed in Milesia flies in precisely the same way, at the same height above ground, foraging on a flower head. making abrupt "pounces" on flowers when it stops to feed. Hornets emit a rather characteristic buzz in flight. Milesia sounds almost exactly the same and is exactly the same size. When both hornets and M. crabroniformis are flying round a stand of plants in flower it is extremely difficult to decide which insect is a hornet and which is a fly. Only when Milesia settles on a flower does it give itself away, by holding its wings out in delta shape, while the hornet is more likely to fold its wings over its back. But both insects hang from flowers in the same fashion. So, was that hornet you saw last summer really a hornet? Unless you were expecting to see Milesia crabroniformis, or were looking expressly for it, would you have looked twice at the "hornet", to make sure. Catching hornets in one's net, just to make sure they are not Milesia crabroniformis, is probably not the preferred option of many dipterists. Vespa crabro is a remarkably docile insect, but it can become annoyed.

If one puts these various considerations together it does seem possible that *Milesia crabroniformis* could be alive and well and living in woodland in southern England somewhere, as yet undetected. How could it have got there? It is not recognised as a migrant species, but it is known from parts of Brittany. There is so much movement of people and goods these days it might even have arrived by accident. It is not difficult to envisage a *Milesia* flying, unnoticed, into a caravan in northern France and then being hastily liberated when discovered a day later, on arrival at a campsite in Somerset, or Cornwall.

An assessment of female Syrphus exhibiting features of S rectus

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Syrphus rectus is recognised as a valid species in North America. A number of female Syrphus specimens exhibiting characters of S. rectus have been identified in the UK and have been ascribed to the subspecies S. rectus bretolensis (Goeldlin de Tiefenau). However, it is unclear at present if these are true S. rectus, a yellow-legged colour form of S. vitripennis, or something completely different. Male S .rectus are not currently distinguishable from S. vitripennis.

A female *Syrphus* found as a larva in Bishops Stortford, Hertfordshire, and reared by Colin Plant in June 1997 proved to be *S. rectus*. A female was caught in a Malaise trap running from 12 August to 2 September 1999 at Glenveagh National Park, Donegal and a small number of additional specimens have been recognised from Britain.

The characters used to identify *S. rectus* females are: hind femur with a weak dark strip anteriorly about halfway along, and basal cells of the wing with areas bare of microtrichia (*British Hoverflies*, Stubbs and Falk 2002). *Hoverflies of Northwest Europe*, van Veen 2004, p214, states of the female: femur 3 yellow on basal ¹/₂, usually partly brownish on apical ¹/₂. Additionally, van Veen notes 'status doubtful (Speight, 2003)'.

On 16 July 2010 I caught a female *Syrphus* at Felmersham Gravel Pits, Bedfordshire (SP991586) on bramble (*Rubus*) flowers. The hind femur was extensively yellow but with an arrangement of brownish smudges basally and at the mid-point, creating a clear, oblique, yellow stripe at the mid-point between these dark markings. This specimen was collected and microscopic examination showed that extensive areas of the basal cells were free of microtrichia (first basal cell with an estimated 10% microtrichia cover and the second basal cell with an estimated 55% microtrichia cover). This specimen was believed to conform to *S. rectus*. Photo 1 shows the entire insect and Photo 2 shows a close up of the hind femur.

While identifying hoverflies from photos posted on the UK Hoverfly Facebook group, I noticed an occasional female *Syrphus* with a dark smudge at the midpoint of the hind femur, but otherwise with the hind femur being all-yellow. I decided to look out for such females during my own fieldwork and check the microtrichia of the basal cells.

On 21 June 2015 I collected a female *Syrphus* from Elveden in Thetford Forest, Suffolk (TL796802) which had a dark smudge at the mid-point of a hind femur that was otherwise entirely yellow except for the extreme base. The specimen showed complete coverage of microtrichia across the basal cells, indicating that it was *S. ribesii*. The smudge in this case was caused by dark pigment on the femur. Photo 3 shows the entire insect and Photo 4 shows a close-up of the hind femur.

On 6 June 2015 I collected a number of hoverfly larvae associated with aphids from Maulden Wood, Bedfordshire (TL073389) in order to rear them through. The larvae started to pupate on 29 June. On 6 July a female *Syrphus* emerged from one of these pupae which had a dark smudge in the centre of an otherwise yellow hind femur. Examination of the microtrichia showed that the coverage was complete across the basal cells indicating that this was *S. ribesii*. In this case the dark smudge was caused by dark hairs only – there was no dark pigmentation to the middle part of the femur. Photo 5 shows the entire insect and Photo 6 shows a close-up of the hind femur.

From these specimens it appears clear that a dark smudge at the midpoint of an otherwise all-yellow hind femur is acceptable for *S. ribesii*, whether caused by pigmentation or hairs.

Stubbs and Falk (2002) notes that rare intersexes of *Syrphus ribesii* occur in which the hind femur is dark-ringed, the base remaining yellow. Neither of the specimens (from Elveden and Maulden Wood) appeared to be intersexes.

In July 2016 I was able to examine Colin Plant's specimen of *S rectus* bred from a larva taken from *Prunus spinosa* in Bishops Stortford, Hertfordshire TL4820 and reared on greenfly, emerging June 1987. The surprising feature was that the hind femur was all yellow with barely any hint of a dark smudge along its length, see Photo 7, and Photo 8 for a close-up. The basal cells were found to be partly bare of microtrichia: an estimated 10% cover of microtrichia for the first basal cell and an estimated 20% cover for the second basal cell.

Both the Felmersham and the Bishops Stortford *Syrphus* show characters of *S. rectus*, yet they are quite dissimilar from each other, the Felmersham specimen having well defined dark markings on the hind femur and an estimated 55% microtrichia cover on the second basal cell, while the Bishops Stortford specimen has an all yellow hind femur and an estimated 20% microtrichia cover on the second basal cell.

At the same time as comparing the two possible *S. rectus* specimens, two females of undoubted *S. ribesii* and two of *S. vitripennis* were also at hand for comparison. The female *S. ribesii*, as expected, had complete microtrichia cover of the basal cells, while the *S. vitripennis* had an estimated 10% cover of both basal cells, similar to the condition in the Bishops Stortford specimen but differing substantially from that found in the Felmersham specimens.

Several photos of specimens of *S. rectus* from North America on the internet show the middle third of the hind femur black with the apical and the basal third yellow, quite different from either the Felmersham or Bishops Stortford specimens.

In conclusion, it would appear that further work is needed on UK specimens of *S. rectus*, including particularly the use of DNA, to establish their relationship with American specimens and UK specimens of *S. ribesii* and *S. vitripennis*.



1. Syrphus rectus collected from Felmersham Gravel Pits, Bedfordshire



2. Close up of hind femur of *Syrphus rectus* collected from Felmersham Gravel Pits



3. Syrphus ribesii collected from Elverdan, Suffolk



4. Close up of hind femur of *Syrphus ribesii* collected from Elveden, showing dark smudge caused by pigmentation



5. Syrphus ribesii collected from Maulden Wood, Bedfordshire 6. Close up of hind femur of Syrphus ribesii collected from



6. Close up of hind femur of *Syrphus ribesii* collected from Maulden Wood, showing dark smudge caused by hairs



7. Colin Plant's *S. rectus*, bred from a larva found in Bishops Stortford, Hertfordshire



8. Close up of *S. rectus* found by Colin Plant in Bishops Stortford, showing the all-yellow hind femur with practically no dark markings

All photo credits: Joan Childs

References:

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British Hoverflies, Stubbs and Falk BENHS, 2002

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Eristalis similis (Fallén, 1817) observed at sugar sprayed ivy in December

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From mid-November to January my daily "patch" is a small section of ivy at Dalton-le-dale (NZ418485). By mid-December the ivy has usually finished flowering (though a healthy second flush has occurred this year). I therefore spray leaves with a sugar/water solution; a technique that is very effective for attracting hoverflies, even in relatively poor conditions. Once the location is prepared, I wait and photograph all of the visiting hoverflies.

On December 17^{th} 2016, I recorded a female *Eristalis* that landed on a flower right at the back of the ivy patch. The best I could do was to take a few photos with the camera stretched out at arm's length while at the same time trying to see through the viewfinder to focus. After a handful of photographs the hoverfly flew off. At this time of the year it was most likely to be either *E. tenax* or *E. pertinax* and, looking at the image previews on the camera screen, the initial thought was *E. pertinax* with the yellow band on the hind tibia. Unfortunately, it sat with its rear towards me and views of the front feet were limited. There was, however, a

suggestion that the feet were not all yellow which would in fact rule out *E. pertinax*. As luck would have it, after a further 15 minutes a hoverfly landed on the ivy to my left. I could see it was a female; it had the yellow band on the hind tibia BUT dark mid and front feet. This was obviously the same hoverfly from earlier. The first photograph was logged at 11.54am and the specimen in the pooter 3 minutes later. Over the next hour or so the ivy produced a single female *E. pertinax* along with two male *Eupeodes luniger* and one *Episyrphus balteatus*.



Once home and able to analyse the photographs, I began to wonder if this could be a dark-footed *E. pertinax*, as I recalled that this was a further possibility. I therefore sent the photographs to Roger Morris, expecting the reply to be one of the commoner *Eristalis*. Much to my surprise, Roger's hunch was a species I had never come across: *Eristalis similis*, although he felt a second opinion was required. He therefore forwarded the photographs to Gerard Pennards, a Dutch Dipterist who provides invaluable assistance to the UK Hoverflies Facebook Group. It was pleasing to hear soon afterwards that Gerard had confirmed Roger's diagnosis. Given that this is a very unusual record and the most northerly UK record for *E. similis*, I took a set of stacked shots of the features needed to come to a positive identification that are reproduced below:

The most important features to be aware of are:

- This is a large species that is similar in size to *Eristalis tenax* and *E*, *pertinax*.
- The front and middle feet are dark, as in *E. tenax*, but the hind tibia is partially pale (like *E. pertinax*).
- The face has a darkened un-dusted area but no band of dark hairs on the eyes.
- The thoracic pleurae are dusted ashy coloured.
- The hind femur is also dusted whereas it is shiny in other British species.



Some observations on the behaviour of male Eristalis nemorum

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The sight of a male *Eristalis nemorum* hovering above a female is relatively commonplace and is a regular subject for wildlife photographers. Occasionally stacks of two, three or even more males above a single female are recorded and photographed. The precise purpose of these stacks has always been a matter of conjecture, although it has often been interpreted as "mate-guarding".

During the summer of 2016 I spent many hours watching this behaviour at one of my South Hetton "patches". My observations led me to conclude that "mate-guarding" was unlikely. No evidence of aggressive behaviour was observed when a "rival" male arrived. Furthermore, several males stacked up above a female also suggests that males do not challenge possible interlopers. Another thesis is that males hover above a female in preparation to mating. My observations suggest that more complex behaviour is involved.

Hoverfly Newsletter #62

All of the males I observed seemed to have a set flightpath through and around the patch of flowers I was watching. This flightpath was only interrupted when something of interest was spotted on a flower or leaf. I say "when something of interest was spotted", because I have concluded that visual recognition only involves the identification of a possible target. If males recognised females on visual cues alone, then they would not start to hover above a range of other insects. In fact it is not unusual to see a male stop and begin to hover above flies, bees and other hoverfly species, both males and females. Two examples are shown in Figure 1. My records include definite touches on: *Bombus pascuorum, Eriothrix rufomaculata* and *Helophilus pendulus*.



Figure 1. Male Eristalis nemorum hovering above Eristalis pertinax (left) and Eristalis tenax (right)

When the male hovers above a female, it appears to be a continuous hover; in fact the hover is interrupted by sudden and lightning fast dives with all six legs outstretched to touch the subject with its feet (Figure 2). If the subject is not a female *Eristalis nemorum* then the male departs immediately and continues on its flight path.

This investigative behaviour is not aggressive; this suggests that the male is using its feet to determine whether the subject is a female *E. nemorum*. If the male "touches" a female *E. nemorum*, it immediately goes into a sustained hover. Even these prolonged hovers above the "correct" target are interrupted by dives, with outstretched legs, onto the female. I suspect that these dives are performed in order to establish the female's state of readiness to mate. It was not uncommon to see two males performing these dives/touches on the same female.



Figure 2. Male Eristalis nemorum "touching" female Eristalis nemorum

The result of this diving behaviour had different outcomes. Sometimes, the male would fly off after a few dives; meanwhile, the female would either crawl beneath the flower, as if to get out of the way, or it would take off into the vegetation with the male in pursuit. This could be read as:

- the male has detected that the female isn't ready to mate and so goes off in search of another female;
- the female isn't ready to mate and simply wants to get away from the male's attentions; or
- the female is ready to mate, takes off and leads the male into a more secluded area.



Figure 3. Two males checking out the same female

More observations are needed to be completely sure of the purpose of male *Eristalis nemorum* hovering above females. Nevertheless, I believe that my initial observations point to this behaviour occurring prior to mating rather than after mating.

New upland hoverflies found in south-west England.

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This year two species of hoverfly have been found in south-west England for the first time, both in Devon, one on Exmoor and one on Dartmoor.

On a visit to Exmoor's Brendon Common (SS780455) on the 27th July 2016, I found a male specimen of *Platycheirus nielseni* as well as a few probable females. This was confirmed by Roger Morris as the first reliable record from the South West, with others referring to female specimens that are difficult to separate from *P. peltatus*. The 2011 Hoverfly Atlas shows *P. nielseni* being predominantly found on moorland at higher altitudes and having a strongly northern distribution including North Wales, North England and most of Scotland. On the same visit I also found 12 specimens of *P. ramsarensis*, another upland specialist which has previously been recorded on both Exmoor and Dartmoor, but not yet on Bodmin Moor.

A note was posted on the Devon Fly Group's Yahoo Newsgroup to alert others to the potential of finding *P. nielseni* high up on Exmoor and Dartmoor, which prompted discussion of other upland hoverflies of note in Devon.

A Devon Fly Group field meeting at Throwleigh Common on north-west Dartmoor nine days earlier (16th July) found three specimens of *P. perpallidus*, one at Kennon Hill Mire (SX645900), one at Raybarrow Pool (SX640903) and another at Cheriton Coombe (SX646909). This is another predominantly northern and western species not previously recorded in the region. At the same meeting three *P. occultus* and two *P. ramsarensis* were found. On 25 July Rob Wolton visited Foxtor Mire (SX617706), an outstanding acidic valley mire system on Dartmoor with extensive sedge beds, and found no less than eight *P. perpallidus*, along with three *P. ramsarensis* and one *P. occultus*.

A further record of note was of *P. scambus*, Rob finding a male on a mire (SX553743) below King's Tor, near Merrivale on Dartmoor on 30 July 2016. This species had previously been recorded from Exmoor and once in north Devon at Marsland (SS222173) by myself in 2013 but not elsewhere in south-west England: it is seldom found in southern England.

P. occultus is not restricted in Devon to upland sites by any means. I have found it at Tidcombe Fen near Tiverton, which is a base rich site at a mere eighty three metres above sea level. The species is also frequent on Culm Grasslands in northern Devon.

I hope this note serves to encourage others to seek out acidic habitats at higher elevations in the south, which could serve as altitudinal 'islands' for relict northern species.





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