BULLETIN OF THE
Dipterists
Forum

Bulletin No. 86

Autumn 2018

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Forum - £8 (includes Dipterists Bulletin)
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Please use the Booking Form downloadable from our website

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Now organised by several different contributors, contact the **Treasurer**.

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

Photographs: Front cover *Atylotus fulvus*, **Steve Falk**, above *Tabanus sudeticus*, **Malcolm Storey**
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)

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Contents

Events

Fly Sheets

Contents

Editorial 4
- **Biological Recording** 6
  - **Phenology: Polar Area Charts** 6
- **Recording Schemes** 7
- **Publishing** 8

Techniques 9

Conservation 9
- UK BAP & **Adopt a species** 12

Regional groups 16
- **Upland Diptera Recording Group** 16
- **Northants & Peterborough Diptera Group** 17

Members 17
- **Membership Matters** 17
- **Correspondence** 18

Review 19

Meetings 20
- **Reports** 20
- **Forthcoming** 24
- **Contributing Bulletin items** 28

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

Other items such as full details of training and workshops and our Membership form may be downloaded from Dipterists Forum website or by contacting the organiser.

A Booking form for meetings can be downloaded at https://tinyurl.com/y9u3pc44

The following Newsletters and other special items are incorporated into the package for the printers after completion of the Bulletin. They have their own pagination. Please contact the Newsletter editors for full colour pdfs, back issues may also be found on the DF website.

Anthomyiidae Newsletter #10 (4pp)
Cranefly Newsletter #34 (6pp)
Hoverfly Newsletter #64 (5pp)
Soldierflies Newsletter #5 (9pp)
Empid & Dolichopodid Newsletter #23 (4pp)
Special report: *Drosophila suzukii* (4pp)
Events list January 2019 (2pp)

Back issues of Dipterist Forum Bulletin at https://tinyurl.com/ycjwuxtd
Access to all links in this Bulletin at https://tinyurl.com/y8kmxc3a

20th Anniversary: Bulletin Editor since February 1999

Desktop publishing: Darwyn Sumner

Editorial

While stocks last

Climate change has doubled the likelihood of heatwaves like the one currently affecting Europe. The response of many diptera species will have been a short flight period and our response will have been to fail to find them or being too lethargic to look for them during the hot spell. These are factors that are going to affect any figures arising from this year's recording.

Insects are in massive decline but proving it is hard. The "*legions of biologists in the field sampling, sampling, sampling, going back to the same places again and again to capture long term trends*" that Lawton (2018) refers to are us naturalists. Despite his claim that "invertebrates are still essentially unevaluated" in comparison to more charismatic groups, we'll keep looking, snapping, recording and publishing.

Lawton, G. (2018). Life on the brink. New Scientist, 28/July(3188), 28–33.

Mann, M. E., et.al. (2017). Influence of Anthropogenic Climate Change on Planetary Wave Resonance and Extreme Weather Events. Scientific Reports, 7(March). http://doi.org/10.1038/srep45242

Stubbs, A. (2018). Drought and the Diptera crash (ibid.)

Weighty issues

It has been said of Dipterists Forum that we punch above our weight, a reference to our influence across a broader range of subjects other than Diptera. We had weight issues again with the last Bulletin, apparently it was a fraction too heavy and slipped into the next postal bracket. A tight squeeze for the envelope too, but they seem to have survived, even one that braved Thai monsoons and rickshaw postal service. Hopefully the special termite-proof cover will now keep it safe in Adrian Plant's house there.

I was thus prompted to look around for magazines of a similar nature to ours to see how they coped. Surprisingly few do one of a general nature like ours. RSPB produce their Fieldfare with its focus on conservation (well worth reading), many rely heavily on their websites or email out electronic versions but the closest one I could find is that produced by BSBI (Botanical Society of the British Isles) under the title BSBI News. There are surprising parallels between BSBI News and the DF Bulletin. Compare Martin Drake's 1998 Bulletin with BSBI News of the same year. Theirs had a lot more pages back then (96) but a heck of a lot more members (enough county recorders in each county to conduct detailed surveys each year). Hard to tell when and if they started colour printing but recent copies co-edited by Trevor James (at one time the representative for Schemes and Societies to the NBN) have many similarities to our Bulletin.

Botanical knowledge of course is an important component of our field craft. Some phytophagous Diptera are under-recorded because we don't pay enough attention to plants. Stand in a field of broomrapes or orchids with your sweep net dangling by your side for fear of damage to the plants and figure out why records for *Chyliza extenuata* and *Ch. vittata* are so few - and that's just my recording scheme. Observations via stool, close-focus binoculars, pooter, time and a camera may provide better information than a net for flies glued to their food plant.

Colour Bulletin

Thanks for all the kind comments about the last Bulletin. The new printer was so popular we've even had an enquiry from the North Lancashire Wildlife Group to ask for their details.

We continue to need lots of colour images, think about the Bulletin as you upload to social media sites or our identification forum.

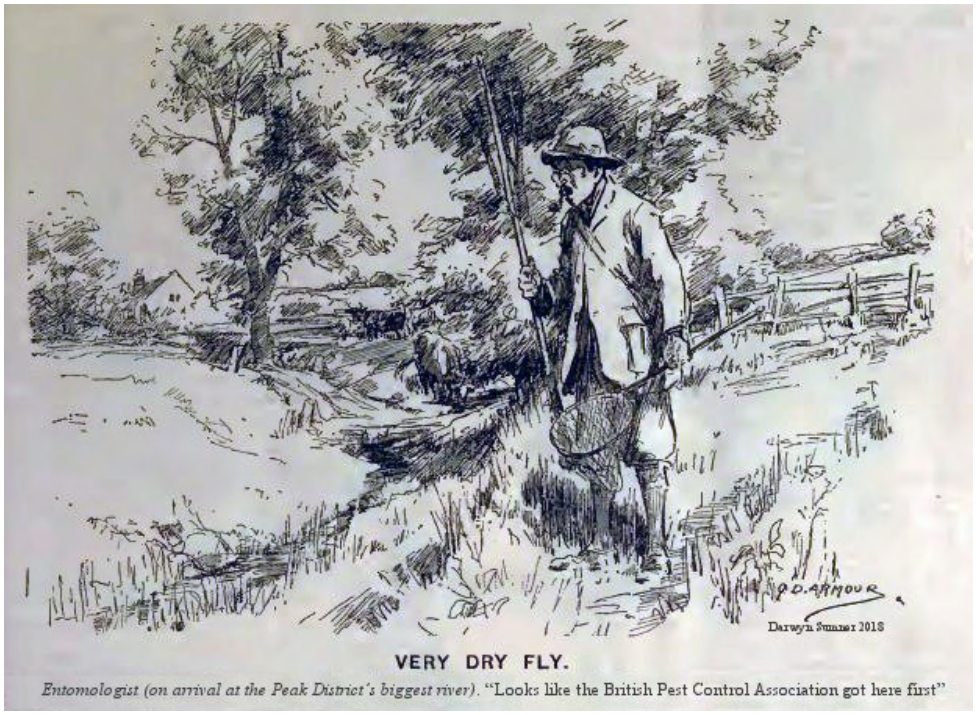
De Vliegenmepper

It can be a bit of a struggle trying to interpret written material in languages with which one is not familiar but there are plenty of translation tools on the internet these days if you are keen to interpret a published paper. One worthwhile magazine is the Dutch equivalent to our Bulletin. Their "Flyswatter" (De Vliegenmepper) is also issued twice per year, you can download all the issues at https://www.nev.nl/diptera/nieuwsbrief.html It's been going since 1992 so there's a lot of information there for dipterists. Their Jubilee number (25(2)) makes a good starting point as it gives an impression of the huge amount of interest there is in the study of Diptera in the Netherlands.

Bite me

Mid July and all the grown-ups from media organisations go on holiday, thus the silly season begins. The Independent and the BBC were accused of "hysterical uninformed nonsense" regarding their Tabanidae stories. Based on a doubling of the calls to health lines regarding bites the two remarkably similar stories are at https://tinyurl.com/ycn4qoag and https://www.bbc.co.uk/news/health-44823286 The organisations they consulted about this issue ranged from NHM entomologists through a random series of health professionals to the British Pest Control Association. The BPCA's Natalie Bungay gave the craziest advice - to drain garden paddling pools.

For Daniel Whitmore's account see https://tinyurl.com/yb62tn75



VERY DRY FLY.

Entomologist (on arrival at the Peak District's biggest river). "Looks like the British Pest Control Association got here first"

Malloch Society Grants

The Malloch Society has the opportunity to give small grants to individual entomologists, up to a maximum of £500 per applicant. This offer, the David Robertson Memorial Fund, is in memory of a founder member and former treasurer of the Society. It is intended for dipterologi-

cal research relevant to the Scottish fly fauna and any application should complement the Society's pioneering work on the Scottish fauna. Preference will be given to projects that would lead to the formal publication of results. A description of the proposal of no more than 300 words should be addressed to The Malloch Society Secretary, c/o National Museums Collection Centre, 242 West Granton Road, Edinburgh, EH5 1JA.

Demographics & Diptera

The social sciences are largely hokum (Jim Parsons, comedian)

Start work in a museum and one of the concepts that becomes clear very early on is that it is important to have a good idea of your audience. Doing stuff that appeals to the widest possible range of potential audience means survival.

Dipterists Forum has never conducted an audience survey but we can gain an impression of the diptera-related activities associated with a particular demographic. As I often get asked to define terms used in the Bulletin, the following defines the groups by their birth years:

- Baby boomers: early 1940s to mid 1960s
- Generation X: mid 1960s to end of 1980s
- Millennials: early 1980s to early 2000s
- Generation Z: mid 1990s to mid 2000s

One could note, for example, that attendees at the Stafford field meeting comprised Baby Boomers with a small proportion of Gen. X and that we've a Gen. Z helping to deliver training courses.

More contributions to this Bulletin (and our other initiatives) from the Millennials (featured in our Uplands group) and Generation Z (highly conservation-savvy) would be most welcome. The beauty of print is that it will last far longer than electronic messaging and outlive many diptera and their habitats. Join us, using our bursaries if need be, and contact us with your Year of the Fly ideas.

Darwyn Sumner (Editor)

Chairman's Round-up

Amanda Morgan has, I am sorry to say, had to resign as our Secretary due to ill health. Amanda was elected to committee as Secretary at the 2014 AGM and has done a superb job not only in ensuring the efficient running and reporting of committee meetings and AGMs, but also in supporting committee members across their various roles. She has been, and remains, a strong and enthusiastic supporter of our society. Personally, I am thankful for all the help and encouragement she has given me.

I'm grateful to our Vice-Chairman Howard Bentley for stepping up to take on the secretary role until the AGM in November, and am delighted that Jane Hewitt has agreed not only to stand for election to committee but also as Secretary. Jane writes "My interest in Diptera stems from attending one of Roger Morris and Stuart Ball's hoverfly ID courses in 2014. Since then, I have been recording Diptera (primarily Syrphidae, but increasingly other groups as well) around my home in the Peak District. I am an active member of Sorby Natural History Society, regularly participating in society field meetings. I took the opportunity to retire early in 2016 after a career as a university academic at the Universities of Manchester and Nottingham, and I am now Emeritus Professor in Mammalian Genetics at Nottingham University".

At our meeting in March we agreed to create the new committee post of Training Coordinator. Training is central to the society's objectives, whether it be fostering the study of Diptera, promoting recording and conservation, or encouraging and supporting amateurs to work in harmony with professionals. It is also a particularly effective way of recruiting new members. The Training Coordinator's remit includes: supporting and encouraging existing trainers; encouraging new trainers to come forward; identifying the training needs and wishes of members, aspiring dipterists and those with a more general interest in entomology; and collaborating with organisations such as museums, colleges and field studies centres. My thanks to Richard Lane for his advice to committee on training.

I am very pleased that Matt Harrow has enthusiastically agreed to stand for election to committee to take on this new role of Training Coordinator. Matt writes "I developed an interest in Diptera whilst studying for an undergraduate degree in countryside conservation. I have since spent a year at the NHM on a traineeship being shown the ID ropes for a range of taxa, which included recurating the British collection of Sciomyzidae. A key aspect of my time at the NHM was aquring the skills to pass on what I know, from completing a Lv3 award in Education and Training to organising and delivering a range of public engagement activities. I am currently employed as an entomological surveyor. Coming from very little knowledge to where I am now, it would be great to be in a position to help others along such a path, something which would have been a struggle for me without encouragement from those that I have met along the way".

Before leaving the subject of committee membership, the role of Conservation Officer remains vacant although I continue to cover it. As I have said before, this is a very flexible position. Would you like to take it on? Let me know.

After many years of acting as our honorary auditors Tony Pickles and Alex Harmer have decided to stand down from this task. Our sincere thanks to them for all their work on behalf of the society. I'm most grateful to John Flynn for agreeing to take on the role. John is BEHNS Treasurer as well as being a DF member.

As reported elsewhere in this Bulletin, our Stoke-on-Trent summer field meeting was a great success. This is in large part due to the hard work of Malcolm Smart who took on liaison with Staffordshire University, making sure everything was in place, as well as leading on the time-consuming task of obtaining access permission for sites. Thank you Malcolm – and Phil Brighton who made sure all the money was received and invoices paid. The University provided one of the best venues we've ever had – the lab space was magnificent.

Thanks too to Martin Drake for his hard work organising the successful workshop at Preston Montford in February, and to Chris Spilling and Roger Morris for arranging our very enjoyable spring field meeting in the New Forest.

As I write this our new website is almost ready to go live, and by the time you read this I hope will be so. The new look and additional facilities, such as the ability to join on line, will I am confident do much good for our society. Thanks to Martin Harvey and his colleagues in the Biological Recording Centre for all their hard work on this, together with the small team of members who have been helping – especially John Showers who has been beavering away ensuring that membership details are correct and correct privacy provisions in place.

The last edition of the Bulletin was a bumper one and in full colour. I am sure this one will be just as good - well done indeed to our editor Darwyn Sumner, to assistant editor Judy Webb, and to John and Barbara Ismay for their help with distribution. Together with the Digest, compiled and edited so well by Peter Chandler, we have two publications about which we can justly be proud.

Rob Wolton

Biological Recording

Phenology: Polar Area Charts

Phenology charts come in all sorts of styles, we are familiar with the histogram as the plainest but there are a number of others. These range from side-by-side bar charts through horizontal bar charts which compare several species to diagrams which botanists use to monitor seasonal changes.

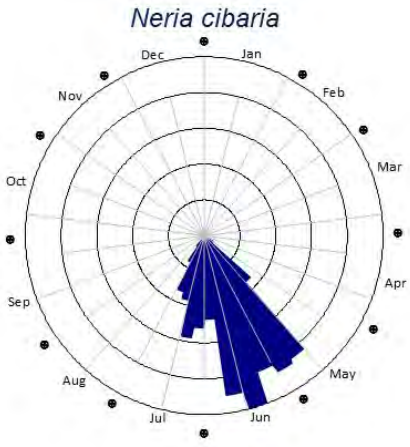
Circular diagrams too, both annular and radial depictions. An example of the latter is a hand-drawn method used most effectively in schools to record any kind of seasonal change: phenology wheels. Examples of annular depictions can get crazily complex, so much so that an art form has developed from it: phenology clocks.

Despite the propensity of popular charting applications to give us confusing embellishments rather than actual functions, Excel does have some useful functions in this area. The basic bar chart gives us the regular histogram but the circular charts are of interest too. The prospect of turning that horizontal axis on the histogram into a circle depicting the year intrigues. No doubt several workers have had a look at the polar area diagrams but on discovering that it produced an unintelligible spiky shape, abandoned the idea.

In a disappointing year for my recording scheme, as the season progressed and the land baked, I began to explore the polar area diagrams further to see if this depiction could be improved, enabling me to determine which species might still be on the wing later in the season.

Fantail phenology

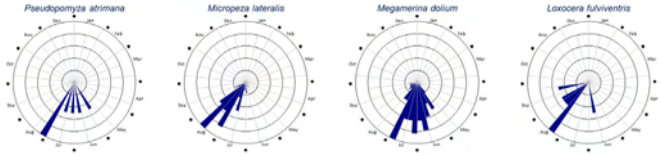
Thus was born the fantail phenology chart, a polar area chart adapted to represent the values as sectors of varying radius:



Sectors based upon week intervals, the maximum value is determined and all other sectors represented as a fraction of that. Accordingly at least one sector always meets the circumference.

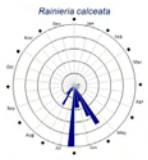
Actual values are omitted, reducing any interpretation simply to familiarity with an analogue annual clock dial; the shape tells it all.

So what species in the Micropezids do remain to be found from July onwards? A quick glance at all my prepared charts and the following were easily selected:

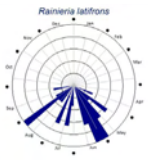


So the place I need to find now is a woodland with sandy soil and lots of broome, some steaming piles of grass cuttings, a few flowery rides and an adjacent reed bed.

I'm guessing it's going to be a good year for *Rainieria calceata* too. I've observed it as active in hot weather and it will disperse widely, unlike the Calobatinae which prefer cooler humid conditions.

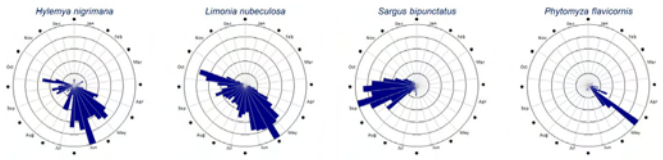


Could extend its range in the UK this year, it likes the sun and has a propensity to disperse widely.



The European sister species has a prolonged flying period across a wide range of climatic zones.

Howard Bentley and Laurence Clemons provided lists of other Diptera species for which fantail phenology charts might be informative (I chose *Hylemyia* & *Limonia*). Andy Chick suggested *Sargus bipunctatus* for an autumn species and Barry Warrington found a spring species (*Phytomyza flavicornis* adults, just 42 records) - many thanks to them all.



All data from NBN Atlas downloads

Method

Full instructions are provided within the .xlsm Excel file downloadable at https://tinyurl.com/ya7yyhb4 Data may be obtained from NBN Atlas or from other sources if you happen to have access to recording scheme data. Datasets consisting of mixed species can be analysed rapidly. It may be sluggish with large datasets but I've had no problems with 10,000 records though I'd worry about using it for *Episyrphus balteatus* which must be getting on for ten times that figure.

If readers consider this chart style of value then in due course I shall be proposing it as an addition to the phenology options in Recorder 7, currently under development.

References

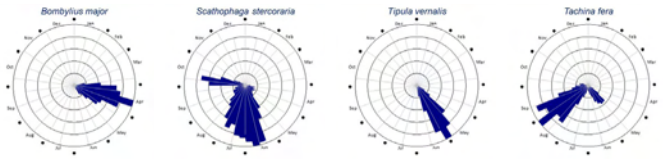
An article detailing methods is under preparation. It is currently lacking a sufficient range of examples so I would be glad of any additions or comments.

In the meantime, if you use the method for your own work, please cite the temporary:

Sumner, D. P. (2018). Phenology and Polar Area Charts (Fantail Phenology). (in preparation), (5), 1–8.

For further reading on the subject of visual perception and charts, the many writings of Steven Few are most informative, several are accessible at http://www.perceptualedge.com/library.php

Darwyn Sumner



Recording Schemes

A spell in the shade: Darwyn Sumner & Steve Crellin at Brown Moss 25/6/18 [Andrew Grayson]

Of the 22 Recording Schemes listed in the article, around 15 are similarly compiled & managed. Of the 10 publicly accessible datasets (NBN Gateway/Atlas), 3 are historic (inactive) and 4 were uploaded there by scheme organisers.

Uploading your own to NBN Atlas isn't hard, just a matter of producing a spreadsheet in the right format and filling in a form. There are several advantages to a Recording Scheme in doing it this way: you've excellent control over verification, you can upload when you wish (no need to wait around for someone else to do it), you've access to the full dataset so that you can do analyses* and you have a data DOI (which counts as a publication) to quote in any papers you or others write.

* Some examples of analyses using full datasets:

- Phenology (ibid.): Laurence Clemons, Barry Warrington, Darwyn Sumner
- Up to date newsletter items, county & country checklists etc.: many recording schemes
- Atlases: Once the sole preserve of BRC; no longer. Most Recording Schemes do their own or the NBN Atlas can be used.
- Status assessments (Bulletin #83 p8): Darwyn Sumner
- Geospatial analysis such as distribution modelling: Stuart Ball & Roger Morris
- Population changes (ibid. Alan Stubbs, Rob Wolton):

This last idea requires a concerted effort. To have any chance at all of monitoring changes in population the Recording Schemes need to be receiving records far more comprehensively than is currently the case. The smaller schemes might struggle a bit to note changes over a period of time though even I think I could show peaks and troughs over the years in my scheme with its mere 4,100 records. The hoverfly scheme has the best chance, good luck to them.

Darwyn Sumner

Anthomyiidae Study Group

Newsletter #10 included in this Bulletin

Phil Brighton (helophilus@hotmail.co.uk)

Soldierflies Recording Scheme

Newsletter #5 included in this Bulletin

Martin Harvey

Cranefly Recording Scheme

Newsletter #34 included in this Bulletin

John Kramer

Empid & Dolichopodid Recording Scheme

Newsletter #23 included in this Bulletin

Martin Drake & Steven Hewitt

Hoverfly Recording Scheme

Newsletter #64 included in this Bulletin. Send your items by 20th November to davidiliff@talk21.com

David Iliff

Dipterists Forum becomes NBN member

Thank you for the Dipterists Forum's support by becoming an organisational member of the National Biodiversity Network (NBN).

Currently we have over 200 members, organisations and individuals whose support allows us to promote biological recording and the NBN Atlas, the largest species data base for any country in the world. In addition we have hundreds of organisations, individuals and volunteers who supply the millions of species records to the NBN Atlas.

NBN Secretariat

What do we get out of this membership? There's a list at https://nbn.org.uk/join-or-donate/membership-comparison-table/

Many thanks to Phil Brighton for sorting this all out. We've yet to set up a Dipterists Forum page on their site, which accounts for us not being listed there yet.

Darwyn Sumner

To BRC or not to BRC

It seems that some are under the impression that BRC does all our data management and NBN Atlas publishing: not so. The list of who does what was published in the Bulletin:

Sumner, D. P. (2016). A Review of the Status of Diptera Recording in the UK. Dipterists Forum Bulletin, 81, 12–17.

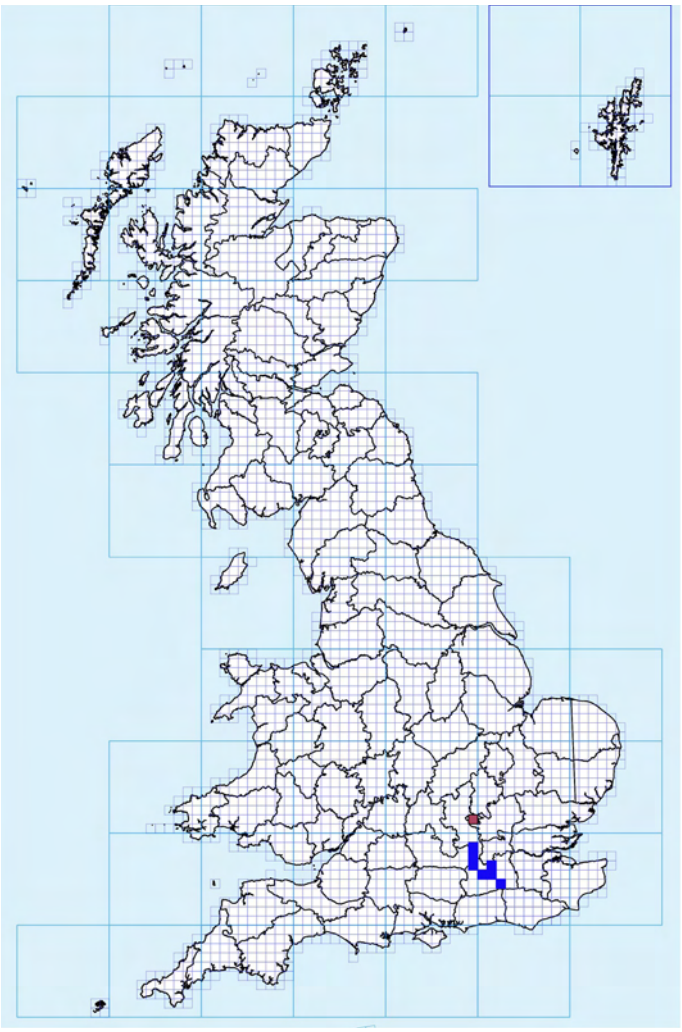
The figures have not changed much since then. All the data from the Dipterists Forum field weeks are compiled, managed and uploaded by individual DF members: https://registry.nbnatlas.org/public/show/dp172

It's your stories that make scheme newsletters a good read but don't cause them to be late. Bulletin deadline is 31st December, theirs may be some time before that.

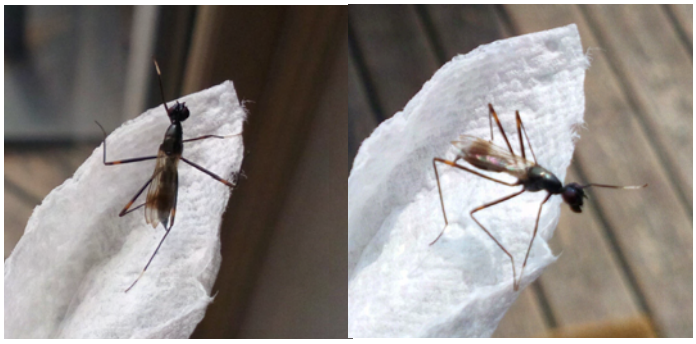
Stilt & Stalk Fly Recording Scheme

My guess about *Rainieria calceata* extending its range this year proved to be correct. Some time after my prediction (see above, Phenology) I received photographs from Lawrence Trowbridge who lives near the Ashridge Estate (National Trust) in Buckinghamshire.

The distribution map is now as follows (the red square is Lawrence's observation):



Lawrence tells me that the estate is good for saproxylics with significant dead wood habitat including a lot of decaying beech. Prime *Rainieria* habitat then, let's hope it establishes itself successfully there.



Rainieria calceata [Lawrence Trowbridge]

Darwyn Sumner

Publishing

The Digest Needs You

As editor of Dipterists Digest I like to publish two issues in each year, but in order to maintain the size and diversity of each issue it has sometimes been necessary to publish the second issue of the year in the early part of the following year. This is what happened with the second 2017 issue, which was published in February 2018. Nearly everything that had been submitted by that time was included.

Most recent issues have included more than 100 pages of text, but to assist in returning to a more regular schedule it was agreed by the committee last year that a minimum of 80 pages will be acceptable. At the time of writing in July (to meet the schedule for Bulletin copy) I don't yet have 80 pages, although it is getting close and, with several papers promised, an issue of more than 80 pages will almost certainly have appeared by the time the Bulletin is out. However, a steady stream of new material is needed to keep this up. Ideally, the first issue should appear in the first half of the year, and the second issue should appear before the end of the same year.

Please consider putting pen to paper. Articles and notes of any length are welcome, especially by new contributors. The scope of the journal is described in the instructions within the title page of each issue, and has remained the same throughout its history. Broadly, any new information on ecology, behaviour, taxonomy or distribution of flies is acceptable. Additions to the British list have figured frequently; even though our fauna is relatively well-known, more species are constantly being recognised or are newly arriving. Many species are spreading from their known ranges, and so drawing attention to occurrence in new areas is very helpful. New keys or amendments or corrections to existing keys are always useful, especially where there has been difficulty in identification. Observations of behaviour will encourage others to carry forward such important studies. Also, with the life histories of so many species scarcely known, new information on larval biology is particularly valued, whether or not accompanied by descriptions of larval characters. Items related to conservation of flies are also appreciated.

Whatever the subject it is often useful to include relevant illustrations, whether drawings or photographs. Colour photographs of flies and their habitats are now a regular feature of the journal, so please consider including these with your articles or notes.

Short notes are particularly valuable in filling spaces between longer articles. It has been raised at annual meetings that some items that are included in Recording Scheme Newsletters would be appropriate for inclusion in the Digest, and editors of Newsletters might consider this option with some of the items submitted to them. All contributions to the Digest are peer reviewed, but that should not be a discouragement to authors; it is usually a straightforward and sometimes anonymous process that is intended only to ensure accuracy, and is often helpful in drawing attention to related work of which the author may have been unaware.

We greatly appreciate the regular contributors who have kept the Digest going over the years, but many other members of Dipterists Forum must have some interesting information it would be good to pass on. Please consider becoming a contributor. You too may become a regular in the future, once you have taken this first step. Email all your offerings to me:

Peter Chandler chandgnats@aol.com

Techniques

Macerating using Potassium/ Sodium Hydroxide

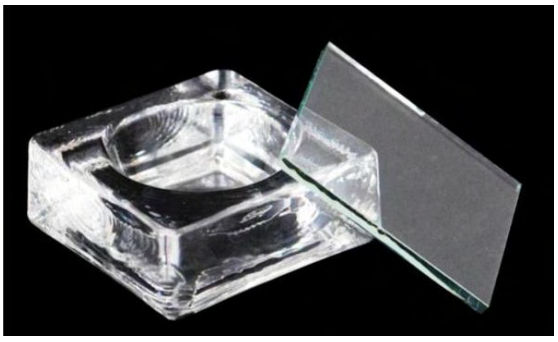
The maceration of soft insect tissues using either potassium hydroxide or sodium hydroxide is often spread up by warming the hydroxide, there are a number of methods that can be used to achieve this warming action, previous article is the bulletin have shared methods used by members and I would like to share a few methods I have used and thoughts about the techniques.

Method 1: Direct boiling.

Texts such as Oldroyd (1970) recommend the use of a Bunsen burner or spirit lamp to boil the specimen in Hydroxide, sometimes suggesting adding a few pins or pin heads. Personal experience has shown this to be entirely unsatisfactory. I have tried this method with, pins, pin heads and "anti-bumping granules" and have found that boiling hydroxide is unpredictable. With the contents of the boiling tube being ejected even if precautions are taken. The term "bumping" as described by some authors is entirely a misnomer, the contents rapidly ascend the tube and are explosively ejected from the vessel. This method is strongly advised against.

Method 2: Gentle heat

In a previous paper (Chick, 2009) I recommended vivarium heat mats to Coleopterists, suggesting their use for a number reasons, such as drying slides, warming relaxing jars and warming hydroxide. I find an excavated glass block with lid can be warmed to between 30-40 degrees centigrade over night for most purposes. Vivarium heat mats also have the benefit of not taking up much space as they are rather flat.



Method 3: Indirect heat

My current personal preference is to use a water bath (as I suggested in Chick, 2016) to provide indirect heat to the specimen, temperatures of between 60-80 degrees centigrade are suitable, while a laboratory water bath would be ideal they are rather costly, however if the precision or a lab water bath is not required a suitable and rather cheap alternative is a slow cooker, In my home lab I use a simple small slow cooker with 3 heat settings (Low, High and Keep warm) I place the specimen to be macerated in a micro centrifuge tube that is kept buoyant by being driven through a scrap of plasterzote. Such a set up costs less than £20.

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Conservation

News from the acting Conservation officer

Autumn 2018

As I write this in late July we are in the middle of a drought. Our farm in Devon has never been so dry in the 27 years we've been here. Wet woodlands have only a few soft spots left, the streams are no longer flowing on the surface, and the river which runs along the edge of the farm is reduced to a trickle. Comparisons are being made with the 1975-1976 drought. Alan Stubbs tells me that this set back cranefly populations for a decade at least: the same applies to other wetland flies. Now the situation is compounded by the overall major decline in insect numbers observed across north western Europe, and indeed by the unpredictable and often severe weather events associated with climate change. The outlook is not encouraging – we can only hope for significant rainfall soon! (Ironic after it seemed never to stop raining here in West Devon between August last year and April this one – the difficulties faced by farmers then were severe then, just as they are now.)

But can we provide good evidence of long-term decline in fly numbers, sufficient to influence land management policy and to add significant weight to the arguments to reduce and mitigate climate change? As Alan points out, the answer is generally no, although the Hoverfly Recording Scheme goes some way towards it - giving statistically valid trends. We need a Diptera monitoring scheme, akin to those that exist for butterflies and bumblebees. I know that others have over the years given serious consideration to this, Roger Morris for example, but perhaps the silver lining to this drought could be that it kick starts such a scheme? Just as with planting trees the best time to start was 20 years ago, but the next best time is now. It's not too late. Collectively, I am sure we can overcome the problems associated with flies being difficult to identify in the field, and dipterists themselves being rather rare. Do let me know if you are interested in taking this forward, perhaps as a member of a working group. Can we replicate the hoverfly monitoring that Alan has been carrying out in his garden for many years?

2019 is, after all, the Year of the Fly. I wonder why they chose a mosquito?

The year 2019 will be formally designated as international "Year of the Fly" at the 9th International Congress of Dipterology in Windhoek, Namibia in November 2018. The year is intended as a celebration of flies and their role in nature and human Society. During the year the intention is to educate the general public about the diversity, significance and beauty of flies and how they affect our lives. "Year of the Fly" is also an opportunity for fly specialists to showcase their research work and new discoveries in the field and make these more widely known. Through an interactive website, social media networking, public lectures and temporary museum displays, the fascinating world of flies will be revealed to a wider audience and encourage interest in the group. Further details will follow.

While on the subject of nasties, the press has been short of real news, as often happen in the summer (although usually in August not July), so they have latched on to a story about horseflies being particularly numerous in this heat wave. Apparently admissions to hospital as a result of infected horsefly bites have soared. The British Pest Control Association has even advised the removal of standing water near homes, to deprive horseflies of places to breed. Crazy! As Andrew Grayson points out, there's no way that the heat can have actually resulted in more horseflies, but the females may be more active in searching out blood meals, and scantily-dressed people with lots of exposed skin make attractive targets!

It's not easy to convince the public that horseflies are not all bad, but it would have been good for the press to recognise that there are 30 species in the UK of which no less than 18 have conservation status (ten Nationally Rare and eight Nationally Scarce), including four that are Endangered, two Vulnerable and two Near Threatened. What's more, many of these species do not attack humans and males never do – and Richard Lane tells me it pretty unlikely any diseases will be transmitted by them in the UK. At least they nearly all have beautiful eyes! It's very good to hear about Andy Grayson's re-finding the Cheshire horsefly *Atylotus plebeius*.

***Chrysops* eye, Rob Wolton**

To end on some encouraging news, a recent paper on the availability of nectar at a national level concludes that following a sharp fall between the 1930s and 1970s, there has subsequently (up to 2007) been an increase in nectar availability in England and Wales. Indeed, the paper provides evidence for a 51% increase in nectar availability between the 1970s and 2007 in England and Wales, largely accounted for by increased resources per unit area in improved grassland, neutral grassland, arable land and broadleaved woodland. This runs contrary to expectation! Most of the increase has been post 1998. The paper notes that calcareous grassland, broadleaved woodland and neutral grassland are the best habitats for nectar in terms of total production, plant species diversity and plant flower-type diversity. Shrub heathland is also very good, but just for total production. Arable is the worst habitat. No surprises there. It also finds that four species of plant - white clover, ling, marsh thistle and bell heather - together produce over 50% of nectar nationally (GB). Together some 260 plants provide virtually all the nectar available to insects (whether bees, flies, butterflies, etc,). The authors recommend that new agri-environment schemes should focus on encouraging more flowers in arable land, recognise that hedges are an efficient means of enhancing floral resources in farmland, and, as a priority, the management of improved grasslands should be adjusted so that they produce more flowers. We need to push for better flower mixes for flies. As Judy Webb says, there's currently too much bee-centric planting! See

Baude *et al*. 2016. Historic nectar assessment reveals the fall and rise of Britain in bloom. *Nature* 530, 85-88.

My thanks to all those who have contributed news pieces. As always, do please get in touch should you wish to adopt a threatened species or become a Fly Guardian, or indeed just have conservation news you wish to share with others. And do let me know if you would like to take on the role of Conservation Officer for the society – I'm just covering for it.

Rob Wolton

The Hoverfly Lagoons Project and Strawberry Farms,

Ellen Rotheray, July 2018

Recent declines in wild pollinators threaten the pollination services we depend on, particularly in relation to the food we eat. Right now, farms often buy or rent managed honeybee hives, or purchase factory-produced bumblebee colonies, to pollinate their crops. But recent research has demonstrated that wild pollinators are as important as crop pollinators, in some cases more so. As habitat degradation is thought to be one of the major causes of insect declines, we sought to investigate whether Hoverfly Lagoons, an artificial alternative to the breeding habitat of several species of hoverfly, increases local insect visitation and subsequent fruit set on a farm. Hoverflies are recorded as feeding more frequently on strawberry flowers than any other insect group, so we established Lagoons around a pick-your-own strawberry field in East Sussex. We recorded insect visitors, fruit set and larval abundance in the Lagoons, and replicated the set up in a field near the University of Sussex. We hope to publish the results later this year, but will continue to post updates via our Twitter account @HoverflyLagoons.

Hoverfly lagoons, Ellen Rotheray

In April, we kicked off the third year for the Hoverfly Lagoons Project, run under The Buzz Club at the University of Sussex. Leaf litter and grass-filled lagoons have so far attracted *Myathropa florea*, *Eristalis pertinax* and *Helophilus pendulus*. *H. pendulus* oviposit batches of 200+ eggs, in neat rows, on the underside of leaves growing above Lagoons, while *E. pertinax* and *M. florea* scatter eggs directly onto leaf litter on the surface of Lagoons. After

two successful years of citizen scientists creating lagoons using plastic milk bottles, this year we asked our volunteers to help us refine lagoon design to answer whether content (grass clippings or leaf litter) or size is important. We also got schools involved, and found some very enthusiastic children keen to fish for larvae and learn about life cycles. As usual, we also welcomed volunteers to get creative and report to us on the outcome of any type of lagoon they would like to test. For example, lagoons inspired or created by accident, through making organic fertiliser out of comfrey or nettles, or situating them at different heights. Our findings will be reported in our Buzz Club newsletter, and updates continue through our Buzz Club Facebook page and via our Hoverfly Lagoons Twitter account. Please see our project page for more details and to find out how to become a Hoverfly Lagoons volunteer: http://thebuzzclub.uk/Hoverfly_Lagoons.php:

Northern silver stiletto fly *Spiriverpa lunulata* – strutting through the shingle banks of Scotland's rivers

Gabrielle Flinn
Rare Invertebrates in the Cairngorms Project Officer.

The Rare Invertebrates in the Cairngorms project is a three year project that is trying to improve our current knowledge of the whereabouts of six rare species in the Cairngorms National Park. In doing so, we hope to learn more about these insects, highlight the importance of their habitats and improve their conservation fortunes. The Northern silver stiletto fly *Spiriverpa lunulata* is one of these six.

Last year (the first year of the project) we spent time training volunteers how to identify and find the stiletto fly - with the help of dipterist Stephen Hewitt. We continued on from his great expertise this year and spent time surveying areas of river shingle across the Park. *S. lunulata* is a river shingle specialist that is most easily observed from June to July when males perform aerial dances in leks to impress a female that waits below in an amphitheatre of vegetation. As larvae, they are voracious hunters, weaving through sand like small, white snakes – searching for their next protein-rich meal. They usually feed on the larvae of other insects. The fly is very silvery, especially the males who are covered in shimmering grey hairs. Their body is shaped like a stiletto knife – giving them their name.

Northern silver stiletto larva, Gabrielle Flinn

Over winter, we used aerial photography on GIS systems to identify areas of good shingle and in some areas used a drone to verify our findings on the ground. This enabled us to more efficiently survey and provided good guidance for volunteers. This year, volunteers spent time surveying in the Feshie where they were counting the number of leks they could find. They also searched for the fly in new sites within Strathspey. In addition to project volunteers, we also had an RSPB sabbatical, Tom Churchyard, helping us to conduct surveys in Deeside. Tom had very poor luck with the weather during his survey week but still managed to find what we believe to be a new site for the species at Builg Burn. Despite the downpour, Tom also managed to visit many potential sites where he noted habitat descriptions and recommendations to better guide future surveys. This informed another search in the Deeside area later in the season which lead to another discovery of the fly, this time at the Spittal of Glenshee.

We are still receiving records from the survey season but feel ecstatic about the achievements made this year and the wonderful efforts of the volunteers – we look forward to an even better 2019.

Vegetated river shingle, Stephen Hewitt

UK BAP & **Adopt a species**

Species news from fly guardians (adopters)

Judy Webb, Summer 2018:

This is turning out to be a very unusual year. A late, wet spring followed by heat and drought that is still ongoing at the time of writing. Early starts and early finishes to fly life cycles seem to be indicated for most of my species.

Milichia ludens (Milichiidae), by Judy Webb

Observation on the Jet Ant *Lasius fuliginosus* host ash tree in Cothill Fen NNR, Oxon, this year in warm sunny weather revealed freshly emerged adult flies of *Milichia ludens* flying round the host tree and sitting on the bark above the ant emergence hole on 21st April, one day earlier than in 2017, which was exceptionally early then. Encouraged by this I inviting milichiid expert Peter Chandler to the site to view the flies on 4th May. Despite apparently ideal warm conditions no *Milichia* were on the bark or flying round the tree and none were seen in subsequent visits. Could they really have finished that early for the year? With such a species so difficult to record, we cannot be sure, but it seems likely.

***Milichia ludens* in net, Judy Webb**

Triogma trisulcata (Cylindrotomatid cranefly), by Judy Webb

Adults (4 males, where were the females?) were on the wing on 21st April in Cothill fen. Thereafter none appeared in my sweepings, suspect another early finish to the life cycle in this southern site.

Odontomyia argentata Silver Colonel (Stratiomyidae), by Judy Webb

Visits to the known breeding site of Parsonage Moor, part of Cothill Fen SAC, were carried out in the likely emergence period of April-May, but no adults were seen. However I was lucky enough to accidentally locate a new population of this species in a floodplain meadow near Oxford where I swept three females from a shallow temporary pool (possible palaeochannel) in a meadow near the Thames on 6th May. No doubt this pool subsequently completely dried out, but this is reported to be a species that can successfully breed in such situations.

***Odontomyia argentata* in pot, Judy Webb**

Clubbed General Soldierfly *Stratiomys chamaeleon* and Orange-horned Green Colonel Soldierfly *Odontomyia angulata* (Stratiomyidae), in Cothill Fen SAC, by Judy Webb

Stratiomys chamaeleon Peter Andrews

A late wet spring meant water levels were very high in the fen but fell quickly as heat and drought started in late May. Stonewort algae (*Chara* sp.) in the peat cuts began to be bleached, a sign of death, combined with producing a rotting seaweed-like smell by May 21st, the earliest I have ever seen this. Heavy rain all day on 31st May relieved things a little, but relentless heat and dry conditions since then seem to have accelerated all soldierfly life cycles. The first soldierfly of any sort was seen at the very early date of 12th May (a female of flecked general *Stratiomys singularior*). As to my guardian species - lack of flowers like hogweed adjacent to Cothill fen mean that there is no easy area to count adults nectaring, so one has to rely on chance observations. Visitor Peter Andrews photographed a male *S. chamaeleon* at Cothill on 20th June (posted on British Soldierflies and Allies Facebook page) and I observed a female on 22nd June and another female on 30th June. Those are my only observations of adults of this species. The chalcid parasite *Chalcis sispes* was commonly swept throughout June and into July. Eggs identifiable as from *Stratiomys* sp. were seen on reed leaves on shoots growing from now dry marly pools in July. Normally, tiny larvae hatch from the eggs and drop into water underneath. It is difficult to see how they may survive dropping onto dry mud rather than into shallow water. An interesting new record from

Peter Andrews is a female of *Stratiomys longicornis* photographed at Cothill fen on 26th May (again posted on Facebook). This is a species usually confined to saline water for breeding. Maybe it is breeding there or there is just a possibility that it is a chance visitor and may be breeding near Cothill at Marcham in ditches associated with a salt spring there. Thus there are now four possible originators of any *Stratiomys* eggs I see on leaves at Cothill (*chamaeleon, potamida, singularior* and *longicornis*).

As I write this piece (23 July) Peter Andrews has just posted on Facebook beautiful photos of three male *S. chamaeleon* seen on wild parsnip flowers at Dry Sandford Pit, an SSSI near to Cothill Fen SAC. I noticed that this site (a spring fed calcareous 'proto-fen' in an old limestone quarry) was still very wet whilst parts of the nearby SAC fen were getting extremely dry. It is good that the fly has the resource of several sites to use in this area. The fly is still on the wing at Parsonage Moor section of the SAC, Peter reports on Facebook one male today (23rd July) nectaring on parsley water dropwort, *Oenanthe lachenalii*.

As to *Odontomyia angulata*, single individuals were swept in the SAC fen areas on 22nd and 30th June and visitor Peter Andrews photographed one on 28th June, posted on Facebook. These are much lower numbers than I normally find.

In Cothill Fen SAC the nitrate pollution mitigation scheme (mentioned in my spring account), to clean up polluted water from agriculture entering the fen, has been carried out for the last 4 months by groups of volunteers working with the local Wildlife Trust and Natural England. I volunteer regularly with the Natural England group which meets on the first Friday of each month. The mitigation involves directing nitrate-polluted water through an area of anaerobic waterlogged rotting vegetation to encourage de-nitrification, thus cleaning up the water (anaerobic bacterial activity on nitrate means N is returned to the air as nitrogen gas). Cut reed and rush piles on the sites have been used to form the rotting vegetation and have been placed in the ditches with high nitrate. The good news is that water testing for nitrate shows that this appears to be working and cleaner water is now emerging from ditches that have the reed and rush cuttings placed in them. However, there is much more to do and I will report more fully on the success of this after a full year of such works and water testing. Once ditch water is reliably low in nitrate, the ditches can be partially blocked by log dams to raise water levels and re-wet some of the areas that are dreadfully dry at the time of writing.

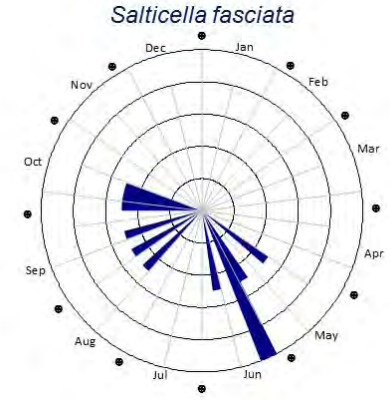
A new Oxfordshire Fens Project is being set up, hosted by the Freshwater Habitats Trust. The aim of this is to restore alkaline fens that are declining due to lack of management. Returning such overgrown reed- or tree-dominated fens to short turf with warm shallow pools will benefit many plant species and invertebrate species, especially perhaps some of the rare soldierflies such as those discussed here.

I will be giving a brief talk on my observations on soldierflies and horseflies from the Oxon fens at the DF AGM on Saturday November 10th at the Oxford University Museum of Natural History.

Searching for the Dune Snail-killing Fly *Salticella fasciata*, by Matt Harrow

During a warm spell last October, I took a trip to the sand dunes of South Wales in search for *S. fasciata* (Sciomyzidae). Within Britain this scarce and localised species has been recorded from just a handful of sites in South Wales and Cornwall as well as the East Coast in Yorkshire, Lincolnshire and Norfolk. The species inhabits foredunes and sparsely vegetated shingle where the larvae are suggested to be saprophagous upon various snails. For four days (5-8th Oct) I scoured all dune systems from Pembrey Burrows (SS410993) to Merthyr Mawr (SS858763), with a helping hand from students of the Swansea University Conservation Society whilst at Crymlyn Burrows (SS711927). The aim was to find any populations of the fly and then attempt to assess that area in relation to the wider dune system. Over the course of the trip, dead and moribund snails were collected with an aim to rear out any *S. fasciata*, however this was unsuccessful. Unfortunately, searching for adults turned out also to be unsuccessful, which hopefully is not due to lack of presence! Although there is no good news regarding *S. fasciata* from this trip, I will be continuing my efforts, whilst gathering as many people as I can muster who wish to be enthused by the wonders of Sciomyzidae.

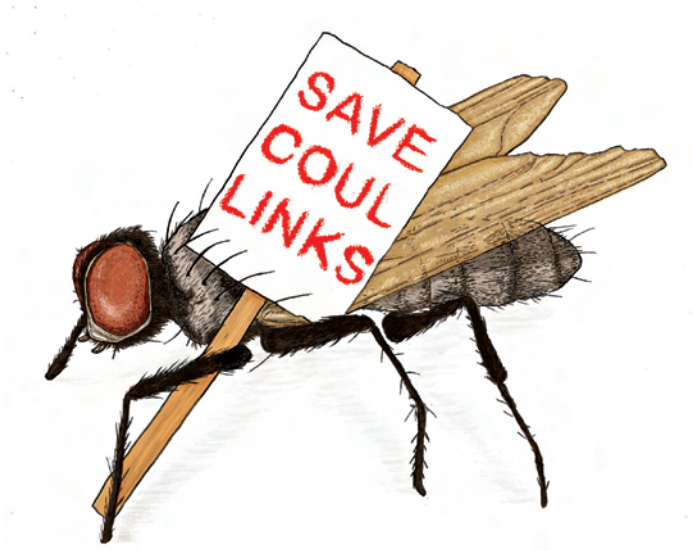
Salticella fasciata Holme Dunes 2013 [Darwyn Sumner]



Phenology indicates bivoltine [Darwyn Sumner]

Fonseca's seed fly *Botanophila fonsecai*, by Craig Macadam

The destruction of a third of the global range of Fonseca's seed fly (*Botanophila fonsecai*) is a step closer following the approval of plans for a championship golf course at Coul Links near Embo in Sutherland. Despite Scottish Natural Heritage maintaining an objection to the plans due to the extensive and permanent loss of the irreplaceable dune habitat on the site, and planning authority officials recommending refusal, the Highland Council approved planning permission on the 20th June. Due to the objection from SNH the decision must now be considered by Scottish Ministers and a partnership of organisations including Buglife have launched an e-action to ask Members of the Scottish Parliament to call for the Scottish Government to reverse the decision and save the site.



You can take part in the e-action at

https://e-activist.com/page/25176/action/1?ea.tracking.id=Buglife

Jamie MacKay

Western Wood-vase Hoverfly *Myolepta potens*, by David Heaver

I have now just about finished re-finding the *Myolepta potens* trees at Moccas. My aim has been more to find out about tree health, seeing if all the trees are still there, than to confirm continued species presence. This is important as this tree set still remains, as far as I know, the only known breeding resource, the sightings of adult *Myolepta* in the Dean and at Gordano being just that.

I managed to find all but one of the trees; some trees I infer are correct even though I could find no tags since they were of the right species in the right place with believable rot holes. I remember some of them from the day I spent helping Andy Godfrey collecting rot-hole material in the first place. I took a series of photos of each tree, a new GPS reading and altitude, and carried out a quick tree characterisation survey, modified from the one I use for violet click beetle tree probability mapping.

All is looking good, with the trees all standing and the resource generally looking well. I consider the larval resource for *Myolepta* to be in generally good condition. Several of the trees are producing phoenix growth, with the horizontal stems having rooted and producing strong new growth. They do, of course, suffer from horse chestnut leaf-miner attack. The age gap issue, common to most parklands, has been recognised and planting is in the management plan.

Bog hoverfly *Eristalis cryptarum*, by Rob Wolton

On 23 May I was delighted to find an individual of this Critically Endangered species at a new site on Dartmoor, the Devon Wildlife Trust's Emsworthy Mire reserve. The finding was reported in the Trust's magazine, as well as on social media.

The bog hoverfly, John Walters

Bee flies, by Chris Spilling

The Heath Bee-fly *Bombylius minor* seems to be having a good year with significant numbers turning up feeding on Sea Lavender on the western edge of the Studland Peninsula (more than I've seen before). On surveys for the Purbeck Mason wasp I've also come across numbers of *B. minor* feeding on Bell Heather on Godlingston Heath and there have been reports from other heaths around here. I've not seen a Mottled Bee-fly *Thyridanthrax fenestratus* this year but others have reported it on the heaths. Its host the Sand Wasp seems to be significantly reduced in numbers and came out rather late. I suspect that caterpillars for stocking the wasp nests are down in numbers because of the effect of the drought on the heather. No sightings as yet reported for *Chrysotoxum octomaculatum* or *C. vernale*.

Barred Green Colonel *Odontomyia hydroleon* on the North York Moors, by Ian Andrews

Following the good efforts by a work party in clearing a lot of rushes from the main seepage last August, the slope looked in better condition this summer and, in spite of the extremely hot temperatures, the amount of water below the source remained constant throughout. I visited twice within the known emergence period at the end of June, but there was no sign of *hydroleon*. As I was then away through the first ten days of July, I asked Joan Childs if she were able to pop in and she reported as follows:

"I visited Seivedale, Dalby Forest, on 6 July, arriving at 10.30 am. The weather conditions were warm, sunny and still. I worked my way slowly northwards on the east-facing slopes towards the main seepage, observing and sweeping, but did not locate any *Odontomyia hydroleon* on these slopes. I arrived at the main seepage at 11.30 am. After only a few minutes of observation my attention was caught by a fly hovering about 1 metre above the vegetation very close to the water source, which I netted and confirmed was a female *O. hydroleon.* I photographed and released this female, and shortly after located a second female exhibiting the same behaviour about half way between the water source and the bottom of the slope, still along the direct line of the seepage. This was

certainly a different individual, having a higher ratio of black to green on the tergites. Near the bottom of the seepage, after a few more minutes, I located a male. After release of the three individuals, I had three further sightings of *O. hydroleon* flying low over vegetation over the course of a further hour, but these were not caught and may have been the same insects as previously. I did not observe any individual further than 1 metre from the main seepage, and sweeping at any distance away from the seepage did not locate any further individuals."

I am very grateful to Joan for taking the time to make those records. I then visited on July 13th, in favourable conditions, but was unable to locate any individuals. It is good to report that the species is still on the site...numbers appear low, but with an emergence period over previous years anywhere between June 23rd and July 20th, it may be that more were missed.

Many thanks to Cath Bashforth, Forestry Commission ecologist, for her work in ensuring that cattle are placed onto the site over the winter and for her interest in the Barred Green Colonel.

The Hairy Canary *Phaonia jaroschewskii*, by Ian Andrews

A couple of records of the Hairy Canary from sites in the York area has prompted recent e-mail discussion about this UK BAP muscid. I was reminded of its presence in the area when Julian Small reported taking it at Skipwith Common on 14th May 2017. Julian gave the following details "...it was swept from the South East corner of Skipwith Common, an area of less acid fen meadow vegetation, M23 in the National Vegetation Classification, but with areas of sphagnum lawn." This was a nice find, as the previous record at the site was one bred from a puparium found in *Sphagnum* by Colin Johnson (while sieving *Sphagnum* in search of Staphylinids) at Skipwith Common on 18th May 1965 - a male emerged on 20th May 1965 and was identified [as *P. crinipes*] by Peter Skidmore; it is held in Doncaster Museum & Art Gallery. Thanks to Andrew Grayson for those details.

With that record in mind, I took a couple of male *Phaonia* at Strensall Common on the north-east side of York on 6th June 2018 in a small area of deep *Sphagnum* within a lightly wooded area at SE650609. These keyed out as *Phaonia jaroschewskii*, and I recall there being several more muscids in the same area which may well have been the same species. On the same day, I also looked at another small area of open heath with some *Sphagnum*, just to the north at SE651613, and again found the species there. I was rather pleased with these and not aware of previous records from Strensall until I mentioned it to Roy Crossley, who felt sure that Mike Pugh had found the species there on a 1996 DF meeting. Mike has confirmed that, having two records from further into the military training area, around SE651598, on 17th July 1996. Andrew Grayson seems to have the earliest record at the site...a male from 22nd June 1993. I think it could certainly be worthwhile to target Strensall Common next year and try to understand the extent of the fly's presence on the site, as I found it easily in the only two areas I checked.

Phaonia jaroschewskii is referred to in Natural England's 2017 'Provisional Assessment of the Status of Calypterate flies in the UK' as "a very rare species with only nine post-1960 localities" and the habitat is listed as "Peat bogs, fens and occasionally marshy woodland". What seems clear is that the original belief that the species is wholly dependent upon wet *Sphagnum* bog, which led to Peter Skidmore coining the name Hairy Canary (alluding to the former practice of testing the safety of colliery workings with canaries in the Yorkshire coalfield, together with the partly yellow colouration of the fly itself and the exceptional hairiness of the male hind tibiae (Skidmore 1991)) may not tell the whole story. For example, Steven Falk reported in DF Bulletin 75 (Spring 2013) having found a strong population on coastal grazing marshes at Pennington, resting in sheltered ditches on a breezy day, and commented that there might be some over-spilling of mire specialists onto peaty coastal grazing marshes. Steven also commented recently that " it is not quite the raised bog 'canary' we thought, having turned up recently at Burnham Beeches, nearby Stoke Common (wet heath but with little in way of *Sphagnum*)". In a 2007 unpublished report for the Countryside Commission for Wales on the ecology of the Hairy Canary in England, Peter Skidmore refers to finding it repeatedly on Thorne Moor in areas where no *Sphagnum* is present and cites the interface of *Phragmites australis* and *Salix* carr as the consistent factor within 340 out of 390 records of *P. jaroschewskii* from the site. In relation to that suggestion, David Heaver has commented that "there were substantially more flies in the warp woodlands, and in the birch-mire compartment, than on the mire proper on Thorne, though whether this is a reflection of where adult flies like being rather than a favoured breeding site remains unclear. The distances to move between the two habitats there are not great. Do they go to flowers? Might flowery habitat lure adults, but they breed on wetter ground?"

So, it is very pleasing to note the species as still present on two lowland heath sites around York, but there are still many questions to be answered in relation to the precise habitat requirements for breeding.

Phaonia jaroschewskii, Ian Andrews

Phaonia jaroschewskii showing the exceptionally hairy hind tibia, Ian Andrews

Robert Wolton
Acting Conservation Officer

Regional groups
Upland Diptera Recording Group

Three trips to the Welsh mountains were planned for 2018, the group's initial year. The first, to the Brecon Beacons, was cancelled due to heavy rain, dense fog and warnings of snow. The second, to Aran Fawddwy, fared better with warm, still conditions throughout the trip. We hiked up on Friday night and pitched camp at ~650 metres above the small lake Creiglyn Dyfi. From our camp we were able to get an early start the next morning ascending the 905m summit and collecting among the wet gullies and flushes on route.

At the peak we observed conspicuous 'summiting' behaviour involving larger brachycera including an impressive male *Tabanus sudeticus*. Plenty of Anthomyiidae and Sarcophagidae; other calypterates were also present including species more commonly associated with woodland such as the rhinophorid *Paykullia maculata* as well as dozens of male giant wood wasp *Urocerus gigas* vying for the top spot. Most of our material is yet to be sorted so hopefully there will be some interesting species awaiting identification.

Weather dependent, our final trip this year is to the Carneddau on 11th - 12th August. Next summer we'll be organising more trips, focusing again on the Welsh mountains and, hopefully also visiting the Lake District. Although a key goal of these meetings are to increase our understanding of the distribution of upland Diptera, it should be noted that those with all manner of recording interests and ability are welcome. After all, it is as much a weekend getaway in the hills as it is strictly a recording activity.

Please do get in touch if you'd like to come along in the future.

Sam Thomas & Matt Harrow
Contact: sjthomasbotany@gmail.com matt.harrow@hotmail.com

Members

Northants & Peterborough Diptera Group

Group members have met each Sunday bar one since the end of April. Our aim has been to revisit some promising sites at different times of the year and to include new sites, especially in areas where there are few diptera records in the vice-county. We have also supported the Northamptonshire Biodiversity Records Centre's WILDside project with a number of events. WILDside is aimed at encouraging more people to record wildlife and send their records to the NBRC. The Diptera Group have run a one day workshop helping people with fly identification; have taken part in some bioblitz's and helped with a project to record bee-flies (only *Bombylius major* unfortunately) in the county. This latter project has encouraged a number of naturalists to take a closer look at flies and has had some positive feedback from non-dipterists.

After the very successful Dipterists Forum Spring Field Meeting at Yardley Chase last year, we have been encouraged to step up recording in the Ministry of Defence Cadet Training Area. This Spring saw a big increase in the number of comb-horned craneflies (*Ctenophora pectinicornis* and *Dictenidia bimaculata*) observed throughout the site. A number of other records of these two species have also come from other sites in the county. It seems to have been a very good Spring for them.

The group has been involved in an initial survey of a new nature reserve being created on the site of the old Rugby radar station as part of mitigation for the development of the Daventry International Rail Freight Terminal. This site is not yet open to the public but will have hay meadows, old hedgerows and many ponds. We also helped on a bioblitz of an old ironstone quarry and woodland site near Corby where development of new housing and industrial areas is being undertaken. The area we covered will remain undeveloped and managed for wildlife. Although so far no uncommon species have been identified from these sites, the managers appreciate having Diptera records and comments on their ecology, for future planning purposes.

As I write this, we are in the second month of a drought and heatwave, which has led to low numbers of flies being recorded in recent visits. Many of the wetlands alongside the River Nene are really dry and it will be interesting to see what the effect of this will be.

John Showers

Membership Matters

By Mid July 2018 we had 353 paid-up members and 313 subscribing to the Dipterists Digest. This is a little higher than this time last year. So far in 2018 29 new members have joined and 3 have resigned.

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.

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 2018

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.

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.

International payments should use:

IBAN: GB56NWBK60600848054615
SWIFT: NWBKGB2L

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.

OTHER PAYMENT METHODS

Cheques should be made payable to:

"Dipterists Forum" and sent to the address above.

PayPal payments can be made to: dipteristsforum@outlook.com

Please e-mail me to let me know when you pay by PayPal..

John Showers

Correspondence

Horseflies have been a topic of much discussion this year, both in emails and during our field week. Much of the writing on this by Andrew Grayson and others may turn up as articles on forums, in the Soldierflies newsletter, this Bulletin or in Dipterists Digest. Amongst the emails came the following observations by Alan Stubbs which, as Andrew commented, are a worthwhile read ...

Drought and the Diptera crash

Around Peterborough, in 'ideal' horsefly habitat such as Woodwalton Fen, I have experienced remarkably few horseflies, *Haematopota pluvialis* or *Chrysops* species. Though the winter was wet and Woodwalton Fen had high water levels, by June the fen was very dry even in normally wet and damp depressions. Providing there is some rain every month to keep the ground damp, wetland flies stand a chance of survival in the early stages. The sort of summer drought we are now experiencing must severely impact the flies of wet soils and subaquatic/aquatic habitats such as horseflies (cranefly eggs are very prone to desiccation, unlike some of the mosquitoes).

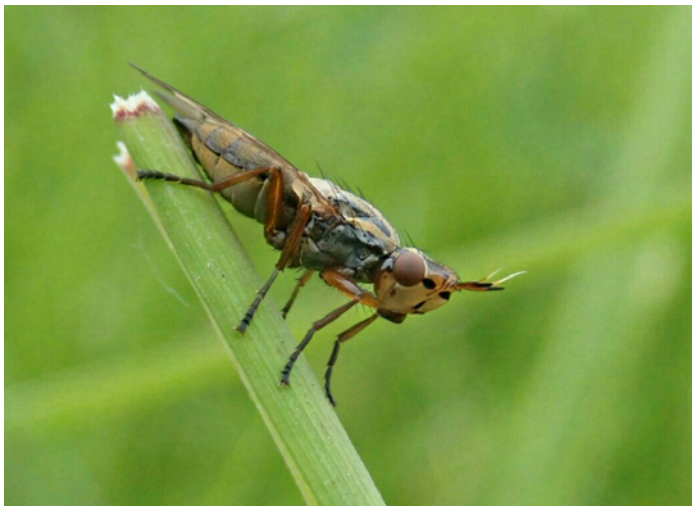
We have now gone for a decade or more since there was a 'good' season for flies in general. One can conjecture as to causes of 'decline' but climatic patterns certainly play a significant part. A sequence of 'poor' years compound on each other since each successive year the population base for the next generation gets lower and lower. As regards drought, the 1975/1976 combination of 18 months poor rainfall and 2 very hot summers back to back caused a crash in craneflies which took about 10 years to more or less recover (and arguably never recovered). Last year was poor for craneflies, and despite the high rainfall last winter, this year is very poor for them in my experience, even when and where the habitat seems to be in favourable hydrological condition (to qualify this, a few species may be in good numbers instead of lots of species being plentiful). My best alder carr seepage at Peterborough used to have a rich cranefly fauna: this year the groundwater seepages were flowing well after the winter rain but there were so few flies (in general) that I gave up sampling (sloping ground, so not a case of larvae being drowned by flooding). My garden last year saw a major crash in fly numbers and diversity, this year has been abysmal (even before the drought set in) compared with even 2 years ago.

For the most part we are speaking of impressions rather than hard data. Using recording scheme data can helpful, mainly absence of records from sites where a species was previously found (and interpretation of context can be crucial for interpretation of significance) but experienced recorders may not be sending in yearly returns for species they regard as mundane. Monitoring in a rigorous, statistically acceptable fashion is difficult to deploy. All sampling methods have bias. Habitat, geographic coverage and number of taxa are potentially daunting if the bias of selectivity were to be overcome. Statistically there should be replicates. My garden monitoring data for hoverflies goes back to 1991 but as far as I am aware no one else has been persuaded to do likewise (observational equivalent of butterfly walks, an accepted methodology: prior to that Jennifer Owen had a long data sequence via Malaise trapping in her Leicestershire garden, requiring time consuming sorting). There are countryside monitoring schemes based on random selected 10 km squares but there is a problem finding people with the personal priority, time and skills to monitor these squares (almost impossible to have dipterists visiting many of these squares).

Roger Morris, now with a team of helpers, is culling Facebook posted pictures of hoverflies. The purpose is to gain records, with the spin-off of encouraging (at least some of) the photographers to develop identification skills. Certainly with the more photogenic species, there is a useful barometer of the abundance, and abundance relative to each other, including geographic differences (and range extension/contraction). It is also a useful methodology for tracking the appearance (or lack of) migrant species such as *Scaeva pyrastri* (and *Episyrphus balteatus* mass numbers) surely DF members should be able to log sudden appearance of large numbers, enabling us to track movements of migration fronts (with Lepidoptera, it can be possible to back-track on weather patterns to region of continental origin; and by 2010 will that origin possibility have collapsed?).

Think what might be done with monitoring data sets going back to Verrall's start with flies in the 1870s, let alone the 1960s (my serious start, so pre 1975/6 climatic shock). We know that any youngster setting out on Diptera now will experience even greater climate and other environmental change than in my generation. Perhaps DF committee and recording scheme organisers should be the focus for defining practical ideas on how at least some aspects of monitoring might be achieved.

Alan Stubbs



Dorycera graminum [Matt Harrow]

Prosena siberata [Matt Harrow]

Review

Open Access

Copyright issues

If an author writes an important paper, say a description of a new species, then presumably the intention is that that paper may be read by future generations and referred to when someone else wants to do further work. It surely cannot be the case that it is to be kept secret. And yet the copyright laws help ensure that it is kept secret. Copyright laws prevent an author's work from being made Open Access for a number of years, the time period varies from country to country but generally speaking they are in the order of a lifetime, around 75 years. It's reasonably certain that you didn't purchase the journal at the time it was published. It's not been published online by organisations such as BHL who make available some journals that are out of copyright and the journal's publisher is no longer selling the particular edition. It's not available from booksellers either.

No-one profits and the information becomes gradually less accessible through time as libraries and their holdings decline and collections of papers pass into private hands and landfill.

Some examples from my area of interest are:

Collin, J. E. (1959). A new species of Psila (Diptera, Psilidae) from Yugoslavia. Entomologist, 92, 241.

Lyneborg, L. (1962). Danske acalyptrate fluer 1. Conopidae, Micropezidae, Calobatidae, Micropeza lateralis. Entomologiske Meddelelser, (31), 249–264.

Lyneborg, L. (1964). Danske acalyptrate fluer 2. Psilidae, P1atystomidae and Otitidae (Diptera). Entomologiske Meddelelser, 2, 367–388.

Winter, T. G. (1988). Larvae of Chyliza fuscipennis (Robineau-Desvoidy) (Dipt., Psilidae) in coniferous resin. Entomologist's Monthly Magazine, 124, 73–76.

Cogan, B. H., & Dear, J. P. (1975). Additions and corrections to the list of British acalyptrate Diptera. Entomologist's Monthly Magazine, 110, 173–181.

All of them in that dead copyright zone. The copyright rule has surely had its day as it suppresses research.

Darwyn Sumner

Obituaries

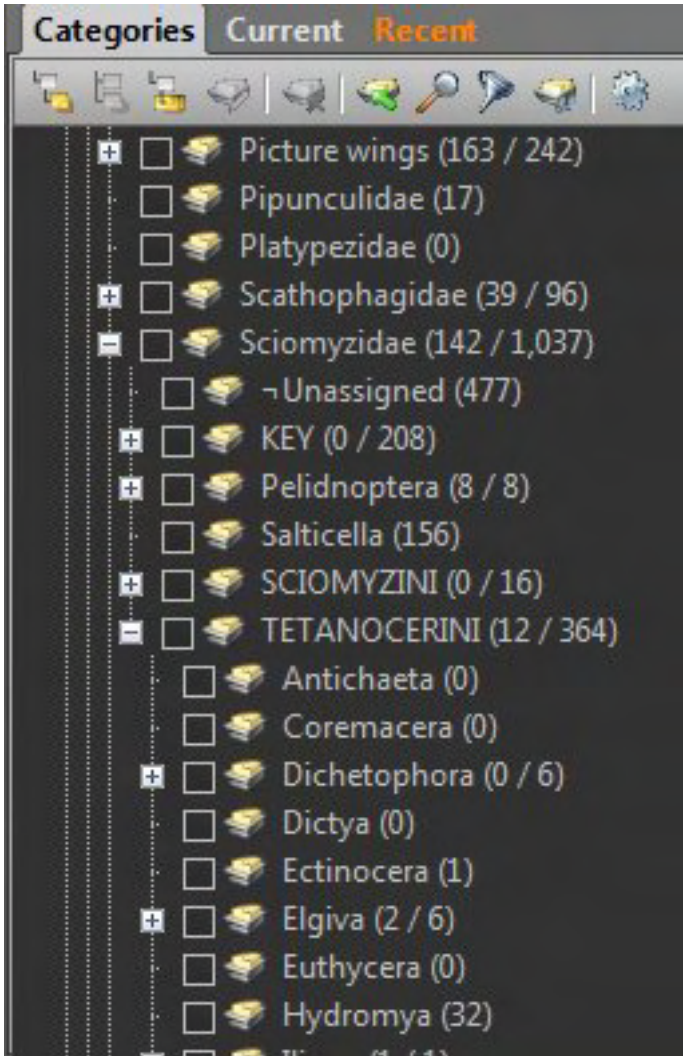
Roger Crosskey (1930-2017)

Obituaries are to be found in several places. The home page of Diptera.info being one. Daniel Whitmore sent me a link to a recent article in Zootaxa which he describes as a nice article on Roger Crosskey's life achievements - wriiten by Peter Adler and obtainable at http://mapress.com/j/zt/article/view/zootaxa.4455.1.2 (you will have to register)

Software

Digital Asset Management

The digital assets referred to are your collection of photographs and other images. Photools' iMatch has been popular with naturalists for many years. The most appealing feature those who photograph wildlife for later identification is Categories. iMatch's Help pages regarding this feature are to be found at https://www.photools.com/help/imatch/#cat_basics.htm (yes, online Help is one of the new features). Their examples simply use people but for us it's possible to set up an entire hierarchical tree based upon Diptera taxonomy. Thus as you collect photographs of Sciomyzidae you simply click that box in your category tree and when you are feeling brave enough to attempt to identify some (or you've had an answer through identification forums such as ours at http://www.dipteristsforum.org.uk/f7-Identification.html or on Diptera.info or iSpot), simply select that Category add species names to the tree and assign them more precisely:



Screenshot from my iMatch Categories. Clearly I got a bit carried away as I don't have images of some groups. Probably best to add them as and when you get a picture.

Photools.com recently released iMatch 2018 (see https://www.photools.com/imatch-2018-whats-new/), for a new copy it will cost £101 but if you are upgrading from a previous version it's £61. Minor upgrades and fixes are free but you have to pay for these annual major ones it's how the authors make a living. Some aspects of iMatch have been reviewed in previous Bulletins, the current version will take a little time to explore, first impressions are that it is very much faster.

Darwyn Sumner

Cosmetics

Skin So Soft

For those of you that are prone to being bitten by midges (no idea of Latin name) and would like them to stop; I recommend using Skin So Soft made by Avon. It is sold as a moisturiser and Avon make no claims for its use as an insect repellent but it does work. Earlier this year we were out dancing one evening with my local women's Morris side Anstey Royale Chalfont. As dusk came, and being by water, we were plagued by midges biting. Darwyn was sent to get our Skin So Soft from the car & we all used it to good effect. It smells OK too.

It is said that the SAS use Skin So Soft on manoeuvres and there's a report in the Independent about this at https://tinyurl.com/y9sjhuy3

Joyce (not an Avon lady) Sumner

Meetings
Reports

2018

Diptera Workshops 2018

Difficult Larger Brachycera & Anthomyiidae

Preston Montford Field Studies Centre

16 - 18 February 2018

Two parallel sessions went ahead as has become the norm, with Martin Harvey enlightening us on the more difficult 'larger Brachycera', and a double-act of Howard Bentley and Phil Brighton leading us through the even more rocky ground of anthomyiids. The setting, at the Field Studies Council's Preston Montford centre, is familiar ground to many of us but I must reiterate our thanks to the staff for their warm welcome and excellent feeding and drinking facilities.

Anthomyiids nearly topped the 'charts' at the previous meeting, where we take a vote on what we'd like to learn about in the following year, and tipped over into top place when no tutors could be persuaded to take on larvae, the favourite on the day. Very few dipterists have tackled the family, despite J.E. Collin's many papers, but Michael Ackland has made his excellent drawings, keys and ecological notes available on request for some time. So at last their profile has risen to the dizzy heights of a Dipterists Forum workshop.

Malcolm, Nigel and Phil at the workshop [Judy Webb]

Phil kicked off with a summary of records in the embryonic Anthomyiid Recording Scheme, based largely on Michael's records and those more recently collated by Phil. Already the sparse records support the known biographic bias towards high latitudes, with a much higher proportion of Scottish records than found in many fly families Phil had grouped vice-counties into ten larger British regions (*see Phil's newsletter in this issue - ed*) which would probably serve as a model for presenting results for quite a few under-recorded families. The overview of larval ecology highlighted a particularly varied group occupying a range of both the usual habitats and some rather odd ones, like sallow catkins and globe-flower flowers. As Phil pointed out, the ecological diversity and interest was not far from that of hoverflies with about the same number of species. His own recording covering just a few years was compared with the national results to show what could be achieved without excessive zeal. All this was served up with Phil's droll humour, making an enjoyable start to the evening.

Alex Dye (Rothampstead) & Siobhan Hillman (PhD on sugar beet leaf mining flies) [Judy Webb]

Martin gave a polished résumé of the eleven families in his recording scheme. Particularly useful was the review of more recent literature, particularly from the Netherlands and Belgium where authors are producing excellent short guides often based on photographs. Some of this formed the basis of alternative (maybe better? – I couldn't possibly say) keys to those in the standard Stubbs and Drake. Martin now has over 100,000 records and he has mapped all the species in a provisional atlas which can be downloaded from the Soldierflies and Allies website. Despite apparently good national coverage, there is a large proportion of poorly recorded hectads and I couldn't help noticing that the Devon Fly Group needs to try harder (note to myself!). Martin's presentation rounded off with a whizz through some identification issues in the more tricky families, which were the focus of the workshop.

Howard checks something for Steve Crellin [Judy Webb]

Saturday began with Howard explaining just how difficult the keys are, which wasn't the best advert but the audience had paid up so couldn't escape hearing the worst. To make it easier, he had picked

out the 25 species most commonly found by himself or Phil and produced a key to the males of just these. We were promised that this would give an accurate identification for 85% of specimens, which may sound an appalling success rate until you realise that nearly every species has unique male genitalia that can be checked against Michael's superlative figures. Using Michael's complete key to males required some diligence but, coupled with the opportunity to cheat by flicking through the figures, allowed many specimens to be confidently identified. Howard had also produced a key to the genera of females, based on a cut-down version of one to the whole Palaearctic fauna, although only a few hardier students tried it. He was at pains to emphasise that the key may often not work, and that Michael Ackland considered it impossible to produce an efficient key to female genera. None-the-less, the lack of a key to female genera was a huge gap in the resources for determining anthomyiids and Howard considered that something was better than nothing, as long as the health warnings were borne in mind.

Phil helps John Showers [Judy Webb]

Usually there are no other formal presentations but this time Judy Webb gave an engrossing talk on larvae of horseflies, stiletto-flies and soldierflies that she had been studying, and usually rearing to adult, from her Oxfordshire fens. The assemblage of these flies from Cothill Fen is astounding, and no-one should miss Judy talking on the same topic at this year's Dipterists Day at Oxford.

Nigel has success [Judy Webb]

It is always a relief to us old guard to see several young dipterists showing enthusiasm for flies – we are not the last of a dying breed after all. DF is pleased to have been able to support two of them with its bursary for this workshop.

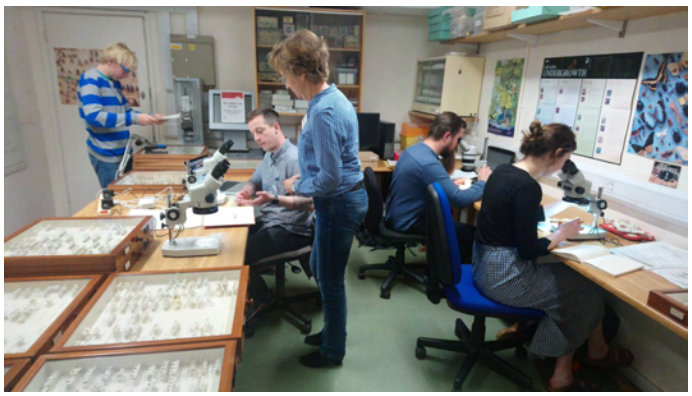
DF would very much like to thank Bjorn Beckmann at CEH for professionally produced handouts of the anthomyiids, based on Michael Ackland's figures and Phil Brighton's typesetting of Michael's keys and ecological data. Richard Underwood brought 15 drawers of anthomyiids from Liverpool Museum's collection, and we also thank BENHS and NHM for providing drawers from their collections. And, what you've been waiting for, the winner of 'fly family for 2019' went to empids and hybotids.

Martin Drake

Acalypterate Clinic

12th May 2018

Oxford University Museum of Natural History.



Jann Billker & Barbara Ismay

Acalyptrate Clinic in the Collections area of the Oxford University Museum of Natural History. Help with the identification of Acalyptrata families to family level and many of these to genus or species.

Learn to love flies (FSC)

27th June 2018

Dinton Pastures

Martin Harvey tutored a workshop for the Field Studies Council at Dinton Pastures. Read his report at http://www.fscbiodiversity.uk/?q=loveflies

Stoke-on-Trent Field Meeting

June 2018

To be based in the Potteries, at Stoke-on-Trent, may sound like folly, and perhaps so 50 years ago. It turned out to be a very good decision. Stafford University provide excellent accommodation, good food and a large temperature controlled laboratory. Nowadays Stoke shows little sign of its industrial past and the road system gave some easy radial routes.

Lunch in the shade at Cholmondeley [Darwyn Sumner]

Stoke is a near central point for the junction of 4 counties (Staffordshire, Shropshire, Cheshire and Derbyshire) so it was possible to gain access to a huge number of county Wildlife Trust nature reserves and other sites, thanks to the advance access permissions gained by 4 county masterminds. The starting hit list was 88 sites within 50 km of base and with a party size averaging c. 17 we dispersed in parties to most of them, plus a good number of extras. All we needed was good weather, and it was if the tone of enthusiastic TV weather presenters is the arbiters. For Diptera and their enthusiasts, the very hot and clear sky anticyclone conditions were at times challenging, especially within a prolonged drought.

Jane Hewitt and others in the spacious laboratory [Andrew Cunningham]

Stoke was chosen in part because it was much cheaper than other options but in particular because we have never had a summer meeting in this poorly recorded area. It has been the outer fringes to middle of the counties that have had attention rather than the Stoke radius, and of course our field meetings inject a major boost to recording effort and specialist expertise. Stoke gave us access to several major landscapes.

The Cheshire Plain extends into northern Shropshire, and the term is further misleading since it is far from flat. It is special within GB for the large number of kettle-holes, the Ice Age aftermath of large blocks of ice within glacial moraine having melted. The outcome is a scatter and clusters of lakes and basin mires; some of the latter have built up into raised mires. One such cluster is in north Cheshire where various invertebrates have their sole distribution in Britain, including the horsefly *Atylotus plebeius* and the hoverfly *Orthonevra intermedia*. Andrew Grayson had already started pioneer work on the ecology of the horsefly this year at Abbots Moss and nearby sites so we had the advantage of his knowledge. The hoverfly was found on the fen edge of Hatch Mere, a new site (and only the third person in Britain to have recorded it). The very local and beautiful cranefly *Idioptera linne*i is present on Abbots Moss, to which we added *Erioptera nielseni* as part of a very unusual poor fen assemblage. Wybunbury Moss NNR is super (and locally hazardous: strictly permit only) which was highly rated by those who visited it. Here the prize find was the rare sepsid *Themira gracilis*, otherwise only previously known far to the north or south. Here also, a male of the tachinid *Lophosia fasciata* was taken, an odd ecological place for a fly whose known host is the hawthorn shield bug. Loynton Moss produced the rare dolichopodid *Systenus bipartitus*, a genus associated with tree sap runs, emphasing the potential of woodland fringes that are a feature of many of the mosses. Of the lakes, Aqualate Mere (Shropshire) was very productive, especially the alder carr; the local wetland dolichopodid *Rhaphium antennuatum* and the woodland robberfly *Choerades marginat*a were among the instantly recognised local species. At Bickerton Hill (National Trust), the bracken dependant anthomyiid *Chirosia nigripes* was new to northern England as far as the recording scheme database is concerned.

Peak District moorland fly attraction - Darwyn, Jenni & Derek [Roger Morris]

Staffordshire is a very varied county. To the south-east, Rod Wood (actually comprises some meadows), not the best places to go in a summer drought on a very hot day. Yet a male of chloropid *Cetema myopina* was discovered (and we had to rely on a dipterist all the way from the Isle of Man to do that), with only 2 previous post 1960 records, in Scotland; chloropid specialist John Ismay had never even seen a specimen before. To the south, around Stafford, a so called inland saltmarsh at Aston Flash proved to be a slightly brackish meadow but it did yield the saltmarsh soldierfly *Nemote-*

lus uliginosus; a number of other interesting species were found on a cluster of reserves in the district. To the south of Stafford lies Cannock Chase, an area that deserved more attention; a small party found the Sherbrook Valley on the west side very productive. The hill country to the east and northeast of Stafford (Cheadle and Leek areas) proved to be one of the most productive districts, visiting listed and self-found sites. Here the rare rhagionid *Chrysopilus erythropthalmus* was found by a stream in a wooded valley. An on-speck visit to a stream in Ladderedge Country Park produced 33 species of craneflies (more than on any of the nature reserves during the week!). In fact there are a surprisingly large number of country parks in the county which include good habitats. In dashing off to visit so many enticing far flung places, home base can be neglected but the University grounds included a nature reserve that yielded nice to find species, such as the soldierflies *Stratiomys potamida, Oplodontha viridula* and *Oxycera nigricornis,* the best assemblage of aquatic strats for the week.

Chrysopilus erythrophthalmus [Robert Wolton]

The Peak District National Park straddles Staffordshire and Derbyshire and comprises both moorland and limestone districts. Forays included some led by Derek Whiteley, with special permission to go onto a marvellous area of upland moorland SSSI with very extensive seepage fed fen, with no indication of drought stress. In less extreme heat at 1,000 ft, the site was productive so the results should prove good.

Preparing to survey Leash Fen (near Ramsley Reservoir) [Derek Whiteley]

The Millers Dale area is on Carboniferous Limestone and has some excellent habitats, in places with plenty of flowers. It is worth mentioning comparison with other years. Via the Nottingham field meeting we had visited a limestone seepage in woodland in Millers Dale, where we discovered the rare cranefly *Dicranomyia aquosa* to be flourishing on a wet limestone rock outcrop: in this drought summer (even after a very wet winter), the ground water seepage had all but dried out and hardly any associated craneflies to be found. Also we made the trek along Chee Dale to Wormhill Springs, a place that yielded a rich cranefly fauna in the past. Here there was still an impressive volume of water flowing yet hardly a cranefly to be seen, and indeed the fly fauna as a whole was remarkably impoverished for no apparent reason. It is important to put negatives on record, not just the positives. We had plenty of positives in the Peak Disrict, including the discovery of what seemed a thriving population of *Tipula alpina* at Hopton Quarry NR. The fly is a limestone woodland specialist best known from the regional climatic hot spots around Morecambe Bay (Cumbria, North Lancashire) and the lower Wye Valley in the Forest of Dean (Gloucestershire/Gwent boundary), plus an enigmatic record for the chalk in Kent. Derek checked the Sorby Natural History Society data and found there was a previous record from Via Gellia, the limestone valley containing Hopton Quarry, situated at the extreme SE corner of the Peak District where the climate is especially favourable.

It is too soon to give totals of records. The target of 100 species of craneflies was met, just (had it not been a drought, the target would have been higher). Though fungus gnats were generally scarce, some concentrations in dark nooks were intercepted. In a difficult season for hoverflies, poor numbers were expected. Yet some other groups such as dolichopdid came out pretty well.

It will be until wintertime identification sessions that results can be properly assessed. But in any case field meetings are about more than recording, they are also social events for spending time with other dipterists.

We were delighted to have 2 newcomers who had come to learn the ropes: everyone has to start at square one, and we like to enable today's novices to become the able recorders of tomorrow.

Jenni consults with Alan [Derek Whiteley]

Apart from anything else, these meetings provide a super opportunity to experience unfamiliar parts of the country, with company and guidance as to the best places to visit. Our gratitude goes to Amanda for setting up the initial arrangements and to Malcolm Smart for stepping into the hot seat when Amanda had to step down for health reasons. We also acknowledge the energy of the site access organisers, Phil Brighton (Cheshire), Derek Whiteley (Derbyshire), Nigel Jones (Shropshire) and, again, Malcolm Smart (Staffordshire).

Alan Stubbs

As for the horseflies ...

Andrew Grayson adds the following: *Tabanus maculicornis* "I found it at Cadney Moss (just over the border in VC50); Chartley Moss (VC40); Clarepool Moss, and the lanes between there and Cole Mere (VC40)"

An account by Andrew of *Atylotus plebeius* during his survey of Cheshire Plain horseflies and whilst he joined us on the field week is shortly to appear in Dipterists Digest.

In the meantime he can be found tucking in to his favourite snack.

Darwyn Sumner

Submitting records for the Stoke-on-Trent Field Week

I have volunteered to collect the records for this year's Field Meeting.

The principles are the same as detailed in Bulletin #82 (p6):

a. The end product will be a dataset of records published onto NBN Atlas (see https://registry.nbnatlas.org/public/show/dp172), that's my sole objective and extent of my involvement.

b. Your "milestone" for sending records is the **end of March 2019**. This is not as strict as a "deadline", it doesn't matter if you are late, your records simply find their way into future updates.

c. No pressure to send in records, if you treated it as a holiday I hope you had a good time with us, we enjoyed your company.

d. Keep separate spreadsheets for different groups, Diptera on one, and Symphyta on another (provided they were verified by Andrew Halstead). That's all I'll be bunging on the NBN Atlas so if you have other taxa then submit them to the appropriate National Scheme or pop them onto iRecord. Most certainly keep them on a separate spreadsheet - the organisers will wish to see that too.

Feedback to landowners who granted permission is in 3 phases:

1. Alan's account (above) may be used by the organisers as a preliminary report to provide feedback.
2. Malcolm Smart will liaise with all the organisers (Phil, Derek & Nigel) to provide feedback as they see fit as records trickle in.
3. Agencies such as Wildlife Trusts, Natural England, National Trust and the LERCs etc. are all well accustomed to using NBN Atlas as a source of records. Once we've published there we've fulfilled our obligation entirely

Please send your records to me and Malcolm only:

Darwyn Sumner (darwyn.sumner@ntlworld.com)
Malcolm Smart (malcolmsmart@talktalk.net)

Forthcoming 2018

Amateur Entomologist's Society Exhibition

6 October 2018

Kempton Park Racecourse

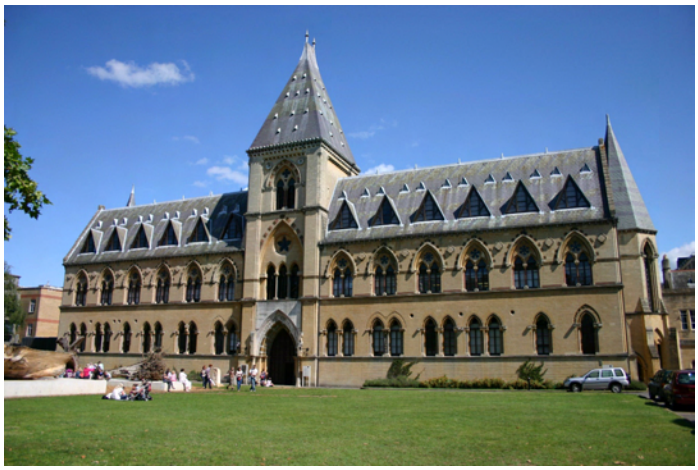
Check our website for details nearer the time. We will have a stand.

Annual Meeting 2018

Saturday 10 & Sunday 11 November 2018

Oxford University Museum of Natural History

Parks Road, Oxford OX1 3PB



We return to the Oxford University Museum of Natural History after a break of 8 years, with a series of talks, your own exhibits, Pemberley Books and chat on Saturday, and a workshop on photography on Sunday along with the opportunity to use the museum's Diptera collection. The meeting is open to all, is free and you don't need to be member of Dipterists Forum. There should be plenty of space for displays in the area where we will have refreshments, so do please bring an exhibit. This can be specimens, photos, posters – almost anything to do with flies. The traditional Dipterists' Supper will take place at a nearby restaurant.

Two of our speakers have an Oxfordshire connection. The museum houses the Verrall-Collin collection of Diptera, probably the most important collection of British flies, so it is fitting that we have Adrian Pont to give an account of James Collins's life, commemorating the 50th anniversary of his death. In the surrounding countryside, Judy Webb has been studying flies of the Oxfordshire fens, particularly the rare soldierflies but many others too, and will compress several years' work into 25 minutes. Peter Chandler's recording scheme for flat-footed flies has been running for two years; his talk should give us some impetus to look out for these attractive, if illusive, flies. Karl Wotton from Exeter University is talking about his research on hoverfly migration, which is highly relevant to pollination and pest control – good to see that flies are getting a higher profile in research. A mix of light-hearted but seri-

ous discourse will be given by Alan Stubbs to help set us up for 2019. On Sunday, Steven Falk, whose Flickr site is well known, will run a session, after which you should be able to emulate his outstanding photos yourself. The Diptera collection will be open for examination for much of Sunday.

Here is the draft programme.

Saturday

10.00 Meet – there's the museum cafe or DIY coffee in the Annex

10.30 **Zoe Simmons**, Collections Manager, Hope Entomological Collections
– *Introduction & welcome to the museum*

10.40 **Adrian Pont** – *James Edward Collin (1876-1968) - his life, his achievements, his legacy*

11.05 **Karl Wotton** – *Syrphid migration*

11.30 Break for refreshments

12.00 **Peter Chandler** – *Flat-footed Flies, a challenge to record*

12.25 **Judy Webb** – *Soldierflies and Horseflies of the Oxfordshire fens*

12.50 Lunch – bring your own, use the museum café or forage in town

2.15 AGM

2.45 Prize for exhibit

2.55 **Alan Stubbs** *2019 –Year of the Fly*

3.20 Chat, refreshment

5.30 Doors close

6.30 Dipterists' Supper at local restaurant

Sunday

10.00 Access to Diptera collection

11.00 **Steven Falk** *Flies on Flickr and fly photography made simple, the Falky Way*

1.00 End of workshop, lunch

4.00 Collection closes

Travelling to Oxford University Museum of Natural History, and Accommodation

The train station is just under 1 mile from the museum. There are six Park & Ride sites, and using these is easier than struggling through Oxford's traffic. There are numerous on-line agencies for hotels, guest houses and B&Bs (e.g. booking.com, trivago.com, tripadvisor.co.uk).

Martin Drake

I asked Martin recently if there's any chance of accessing their Natural History Library. We've no specific arrangements yet but it looks hopeful so bring your list with you.

Ed

2019

The Year of the Fly

In August 2018 the 8th International Dipterological Congress, in Angola, proposed that 2019 was to be the Year of the Fly.

To us every year is the year of the fly because it is our focus. We know that flies are fascinating. And they have a big role in the web of life, in positive ways beneficial to man –though it is the 'bad' ones which get most of the media attention. Possibly the 'Year of the Fly' will gain 30 seconds on TV News and then fall as flat as most other such initiatives. The challenge is to not only to have a good message but to maintain momentum to permeate far and wide. If it falls flat, dipterists will possibly have themselves to blame.

In Britain we could limit the ambition to a better public image for flies, and more people taking up the study of flies. To me, at stake is whether this generation is to pass on to future generations as rich and ecologically functional fly fauna as we have at present, in Britain at least. Worldwide we are accelerating down the path of one of the great mass extinction events of Planet Earth. The stakes are high, especially if indeed mankind has ecological dependencies on flies, as yet poorly defined.

I am due to give a short talk on "**The Year of Fly**" at our AGM, which will focus on context rather than pro-fly sound bites. Following this will be the formal announcement at 9th International Dipterological Congress at Windhoek, Namibia (25th to 30th November.)

I produce this note now in the hope that DF can hit the ground running in 2019, in a British context and more broadly. It is not so much having good facts, it is devising the right presentational sound bites that open doors to more serious attention; this is not the preserve of the most experienced dipterists – it could be any of you. I also address the committee, though I am sure they do not need the slightest prompt, to form a group of people to take the lead in gaining advantage from the promotional opportunities for DF and its objectives*. And how do we get other organisations to run with the theme? – it is a huge opportunity.

Alan Stubbs

***Dipterists Forum Objectives:**

- To foster the study of Diptera, including linking with other disciplines where there is a relationship with other animals and plants.
- To promote the recording of all aspects of the natural history of Diptera, including the advancement of distribution mapping.
- To promote the conservation of Diptera.
- To encourage and support amateurs in harmony with professionals in museums, institutes and universities.
- To organise indoor meetings, workshops, field meetings and other relevant events.
- To disseminate information through newsletters and publications.
- To focus on the Diptera of the British Isles whilst maintaining an interest in those of continental Europe and elsewhere.

My thanks to Alan for this good advice. Committee is discussing how we can use The Year of the Fly to best advantage – to raise the profile of flies and our society, and indeed to highlight the imperative for fly conservation alongside that of other invertebrates. Erica McAlister, our Publicity Officer, and I would very much welcome ideas from members as to how we can best do this. Offers of help would be particularly welcome! I hope that I will be able to report on our proposals and plans at the AGM in November.

Rob Wolton

Diptera Workshops 2019

Empids and Hybotids

Preston Montford Field Studies Centre

15 - 17 February 2019

Tutored by Nigel Jones and Stephen Hewitt

Details on Field Studies Council website: http://www.field-studies-council.org/prestonmontford from mid October

(search in Courses, then Individuals & Families, then Natural History)

The 'empids' is a large group of nearly 400 species consisting of the true Empididae (208 species), Hybotidae (180 species), Brachystomatidae (4 species) and Atelistidae (2 species). They have long been popular as a jumping-off group into the smaller and more tricky flies owing to the excellent monograph by J.E. Collin. Since this monumental work was published in 1961, about 40 more species have been found in Britain and genera have been thoroughly revised by Milan Chvála in the *Fauna Entomologica Scandinavica* series. The last time this group was treated at a Dipterists Forum training course was 2006, so it is high time for a refresher. Nigel Jones will lead on the Empididae and Stephen Hewitt on the Hybotidae.

Hemerodromia unilineata [Stephen Hewitt]

Empids fall within the Asilomorpha which are nearly all predators as larvae and often as adults. With about 400 species, the range of form and size is vast, from chunky *Empis tessellata* seen on hogweed flowers to the pin-head-sized *Chersodromia* that zoom about like crazy dodgem cars. The groups includes many rapidly evolving groups that defy convenient bundling into easily managed genera, so that *Empis*, *Rhamphomyia*, *Hilara* and *Platypalpus* together contain two-thirds of the species. However, at least *Empis* and *Rhamphomyia* often have conspicuous hypopygia that make their identification straight-forward, leaving *Hilara* as the only frustrating genus in the true empids. Almost half of the hybotids comprise the vast genus *Platypalpus* but even this group can be identified quite reliably using contemporary keys. The genus to watch for species new to the British fauna is the attractively marked *Tachydromia*.

Empids occupy just about every habitat from fore dunes to mountain tops, with some very specialised niches in between, making them an exceptionally interesting group to focus on ecologically. Their behaviour is also rather more interesting than that of the average fly, notably the swarming and gift-giving of *Hilara*, and evolution of sexual selection in *Empis* and *Rhamphomyia* where females sometimes outshine males in their attire.

Rhamphomyia barbata [Ian Andrews]

Handouts will include keys and a summary of ecology.

Bursaries

The Dipterists Forum is offering bursaries for up to two places at half price on the Preston Montford course. If you would like to take up this offer please apply by e-mail to the chairman, Rob Wolton, robertwolton@yahoo.co.uk, giving your reasons for applying. Applicants must be members of the Forum. Applications should reach Rob not later than mid December 2018.

If you would like to attend, check the FSC website or contact Preston Montford directly. Bookings usually open in October. The cost of the course will be £295 for a single room, £270 for a shared room and £215 for non-residents. Dipterists Forum members get a £95 discount on these prices (which are then respectively £200, £175 and £120). If you do not bring your own microscope, one can be provided by the field centre but do please book with Preston Montford if you need one. Arrive on Friday evening in time for dinner, and leave on Sunday afternoon. More precise information will be put on the website.

Martin Drake

Key-writing workshop

Dinton Pastures

31 March 2019

Contact Tony Irwin at dr.tony.irwin@gmail.com

Summer 2019 Field Meeting

Stirling

22 - 29 June 2019

Stirling University

The organising of this meeting is in its early stages. We have made the booking. If you wish to assist the committee then Rob Wolton is currently leading the team. For a peek at a map of the area, use Scottish Natural Heritage's Sitelink at http://gateway.snh.gov.uk/sitelink/index.jsp enter "Stirling" in the search box and choose a site designation type.

More details at https://tinyurl.com/y8kmxc3a and in the next Bulletin.

And now ...

The Screwdriver Mystery

The baffling instruction for the summer field meeting was to 'bring a screwdriver'. One's mind raced into contortions, in a screw so to speak, as to what the bizarre purpose may be. It could hardly be for fixing electric wiring since we were to use a university laboratory, and anyway, should it be a tiny one for pin-hole poking or a stonking great one for repairing a bridge to access a site? And why would one shared among us not be sufficient? Whirr your mind for explanations.

How about assembling Meccano to make a new-fangled fly-pinning gadget? But Meccano technology is so ancient, pre Lego even, that I might out-shine the computer whizz-kids. No, it had to be another use. A big screwdriver has many uses for searching for larvae (prizing up bark or opening up dead wood for instance, but too destructive for recommendation. If the ascribed implement were long and thin, it could serve as a barbeque skewer, but that was not the specification. Oh dear, I find my mind is not in an inventive mode.

Let's fall back on the Boy Scout good deed of having a gadget (all be it on a pen-knife) for getting stones out of horse's hooves. However, the chances are pretty unlikely of coming across a horse with a stone in its shoe plus on a nature reserve. And there would be a dilemma. Would a lame horse be an advantage, so we could get close enough to swipe horseflies? Alternatively should one first remove the stone from the hoof, in the expectation that the horse would be so so grateful that it would allow you and your friends to flap a flurry white nets around its person? I find the *Dipterist's Handbook* gives no advice on this crucial aspect of field craft.

It transpires the implement was for extracting stones from one own hoof-like boots, plus mud etc., as a hygiene measure so as not to disperse unwanted seeds or vegetative bits from one site to another. The principle is highly laudable, and sought of naturalists visiting some of the sites. The main limitation is having to unlace and take off boots every time one changes sites during the day, easily neglected on the assumption that one's boots are pretty clean so why worry. A recent 'And Now' has highlighted the problem of goosegrass (*Galium aaparine*) seed on nets, socks and clothing, plus alien bindweeds (*Convolvulus*). Clearly there many other plants such as alien Balsam (*Impatiens*) and alien aquatic/muddy ground plants which are capable of rapidly changing the character of vegetation once accidentally introduced to or spread within a site. A serious matter requiring vigilence.

Alan Stubbs

Lispe tentaculata - from our identification forum [Michael Woods]

Contributing Bulletin items

Revised 2018

Text

1. Articles submitted should be in the form of a word-processed file 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.
3. 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.
4. **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 may be returned 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

8. Colour photographs are now used extensively in the Bulletin, they appear coloured only in the pdf versions of older Bulletins prior to 2018.
9. Please include all original illustrations with your articles. These **should** 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).
11. Add the appropriate metadata to your picture. Your camera instructions will tell you how to add **your own name** to every shot you take. There is also a field for title (species name) and location which would have to be added afterwards.
12. All group pictures should identify all the individuals portrayed.
13. **Powerpoint** and Word files are a useful means of showing your layout but this is not an appropriate method of sending images. We'll be glad of AGM presentations in Powerpoint if that's all we can get.
14. **Dropbox** or similar is appropriate for submitting images for larger files.
15. Line artworks are also encouraged - especially cartoons
16. Colour pictures and illustrations will be printed in colour from 2018
17. 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.
18. 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

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

When to send (deadlines)

Spring bulletin

21. 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

22. Aims to be on your doorstep by 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 Bulletins.

Where to send

23. Would Bulletin contributors please ensure that their items are sent to **BOTH** Darwyn Sumner and Judy Webb.
24. Compiling and proofreading take place immediately upon receipt. Please send only your final proofs.

Newsletters

25. Please ensure that your newsletters have an EVEN number of pages so that they can start on recto and end on verso.

Determining resolution and dimensions

Different graphics applications have different means of displaying this information but typically, even if you use the default system that came with your camera, you should be able to find out the following image information:

26. **Dimensions:** Bulletin columns are 9cm wide. Your picture should be at least this size, but double that is excellent. At that size it must have the following resolution:
27. **Resolution:** Commercial offset printing (this Bulletin and Dipterists Digest) requests 300 dpi. Images larger than the required dimensions we scale down, thus increasing their resolution. This makes no difference to the commercial print quality but the pdf version will have better resolution when one zooms in.

Image metadata

The manual that came with your camera provides instructions on how to set the camera up so that your own name is automatically placed in the image metadata. This is a good practise for a variety of reasons.

The software that came with your camera (or you downloaded) will give you access to other metadata fields which you can add afterwards, many of them can be useful in managing your collection of images.

Consider adding the species name to the "title" field and location details to the "location" field.

Third party image organisers (termed "digital asset managers") may be obtained and were discussed in Bulletin #76

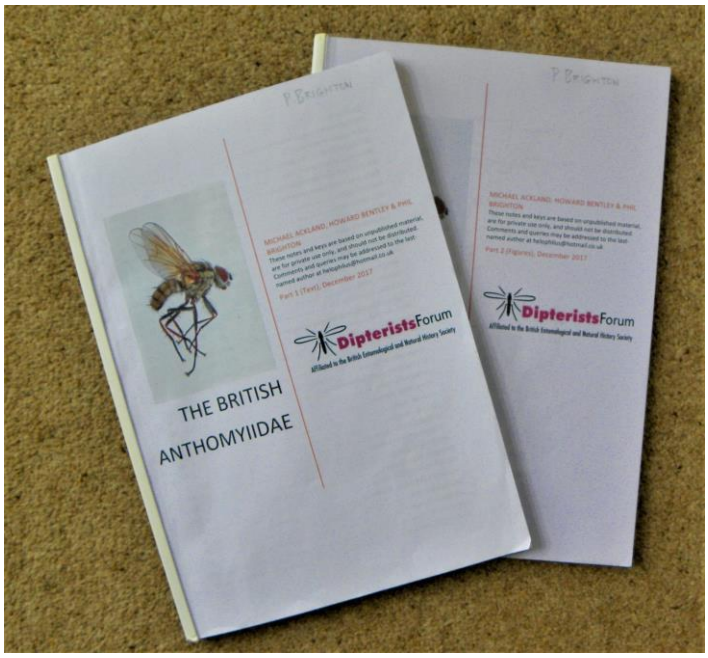
Anthomyiidae Recording Scheme: Newsletter 10, Autumn 2018

There has been a lot of progress with the recording of Anthomyiidae since the last report in the Spring 2017 edition of the Bulletin. Indeed, the first step was the agreement by your committee that the taxonomy was now sufficiently mature for the Study Group to become a fully-fledged recording scheme. Following this, Martin Drake as indoor meetings organiser was able to include Anthomyiidae alongside the more difficult Soldierflies and Allies as the subjects of the February 2018 DF Workshop at Preston Montford. Michael Ackland kindly allowed his unpublished keys and genitalia diagrams to be combined into a printed hand-out for workshop participants. These include a few updates, such as new species and a new species split.

Howard Bentley gave the introductory talk on identification, and also contributed two new keys: one for people new to the family covering the 25 most commonly recorded species; and, for the more experienced seeking further challenges, a key to genera for females, based on the Palaearctic Diptera Manual. This now gives you three routes for identifying females, as the pack also includes Fonseca's "key to some common females" and Michael's own combined key of the large genera Botanophila and Delia into which many of the less distinctive species fall.

I contributed an introductory talk on distribution and ecology of the British Anthomyiidae. This was based on the set of 6846 records in the Scheme at September 2017, compared to the 4108 which have been on the NBN Gateway since 2010. The hand-out contains a table of all 246 known British species together with the distribution of records across the British Mainland and Isle of Man in 10 regions (see below), together with Michael's ecological notes. (Records can also be submitted for Northern Ireland, though none had been at that time.)

This material together with Michael's morphological notes and diagrams has been combined into just two pdf documents. The second has the diagrams four to a page, so that it is now much easier to browse through them compared to the previous separate pdfs. Concatenating the diagrams like this was far from straightforward, but Michael and the Biological Records Centre worked together to provide a very user-friendly printed product.



The records added to the Recording Scheme database have come from additional older data supplied via Michael Ackland, recent data from several active recorders, and a trawl through editions of the Dipterists Digest published since 2000. The extended database has been analysed to provide

aggregate data on the distribution of species across 10 regions of Great Britain based on the numerical order of the vice-counties (see the map at the end).

Region Code	Area covered	Vice-counties included	No of records	No of species
A	South-west England	1-11	1187	150
B	South-east England	12-24	2371	168
C	Eastern England	25-32	659	142
D	West Midlands	33-40	600	127
E	Wales	41-52	578	124
F	North Midlands and Lancashire	53-60	129	42
G	Yorkshire, Northern England and the Isle of Man	61-71	172	74
H	Southern Scotland	72-84	23	17
I	Southern Highlands	85-99	778	160
J	The Far North and the Scottish Islands	100-112	349	107

This approach has been adopted to provide a clearer picture of the relative frequency of different species and geographical distributions than the previous use of qualitative terms such as “abundant” or “locally common” and a listing of vice-counties. The relative paucity of the data, less than 1% of the total for hoverflies with a comparable number of species, means that dot-maps or even vice-county maps are not very meaningful. Even a limited amount of recording in a particular area will probably reveal that there are a few frequent and ubiquitous species, but even for these it is difficult to make comparisons with other less recorded families such as Muscidae. Michael’s vice-county lists designated 33 species as “very common”. The top twenty from the expanded database are as follows:

Species	A	B	C	D	E	F	G	H	I	J	Total	Cumulative fraction
Delia platura	81	130	35	26	22	10	3		4	5	316	4.6%
Hylemya vagans	74	83	12	32	21	11	1		16	10	260	8.4%
Pegoplata infirma	55	77	11	20	25	4	8	2	22	24	248	12.0%
Pegoplata aestiva	44	54	12	18	37	2	3		30	25	225	15.3%
Botanophila fugax	31	117	19	25	10	5	3		10	4	224	18.6%
Hylemya variata	30	65	13	22	23	4	3		22	17	199	21.5%
Anthomyia liturata	40	78	19	9	14	1	1		10	5	177	24.1%
Anthomyia procellaris	27	77	18	19	5	3					149	26.3%
Delia florilega	24	59	11	17	21	3	3		3	6	147	28.4%
Hylemyza partita	32	49	9	10	13	3	2		4	1	123	30.2%
Delia radicum	16	62	21	4	7	2			3	3	118	31.9%
Botanophila striolata	17	57	11	8	4	1	3	1	7	7	116	33.6%
Hydrophoria lancifer	30	27	8	3	14	16			6	1	105	35.2%
Pegomya bicolor	26	38	6	8	11	4	1		2	8	104	36.7%
Lasiomma seminitidum	10	55	12	8	6	3	2		3		99	38.1%
Paradelia intersecta	12	35	4	6	17	3	2		4	5	88	39.4%
Hydrophoria ruralis	17	35	9	11	3	9	1		1		86	40.7%
Adia cinerella	12	44	5	6	3				1	1	72	41.7%
Hylemya urbica	11	24	10	7	7				5	2	66	42.7%
Leucophora obtusa	2	36	6	17		2	1		1		65	43.6%

For more infrequent species there is a progressive decline in the frequency with no natural demarcation between common, scarce and rare. The 50% level is reached at the 28th species (*Egle*

ciliata), 90% at the 135th species (*Pegomya vanduzeei*) and the most infrequent 35 species together contribute only 1% of the records.

I discussed with Martin Harvey the best way of making this expanded database available publicly on the NBN Atlas and managing further data collection. It soon became very clear that by far the easiest option would be the IRECORD website which has been set up by the Biological Records Centre (BRC), who are also the sponsor of the recording schemes. I am grateful to Martin and BRC for undertaking the upload and in the course of this detecting geographical anomalies in some of the records.

Since then I have received several spreadsheets of records which I have myself imported into IRECORD as well as with my own. It is worth noting here that IRECORD provides a very flexible format for doing this, but this is not made prominent on the public website. Special instructions can be obtained via Martin Harvey. To facilitate the process for Anthomyiidae, it is important to use certain fields and terms in the original spreadsheets. I can supply an exemplar spreadsheet format to recorders.

As organiser of the national recording scheme, I have been designated a verifier for the family with the power to mark records as "correct" (a double green tick), "considered correct" (a single green tick), "unable to verify" (a single red cross), or "incorrect" (a double red cross). When I first logged on, I was consternated to find a further 3000 or so records awaiting verification. A majority of these have come from recognised dipterists who have been using Michael's keys, but there was also a range of photographic records both of adult flies (*Anthomyia procellaris* and *A. pluvialis* particularly) and also of leaf-mines and fern galls associated with certain genera or species.

IRECORD provides a number of helpful facilities to assist and document the verification process. Queries can be sent to the recorders and photographic records can be forwarded to an expert – which in this case means Michael Ackland, who has already promptly responded in a number of cases of particularly unusual species.

There is currently a glitch in the system. IRECORD and NBN both use the London Natural History Museum's UK Species Inventory (UKSI) to check the validity of the names entered. Unfortunately the UKSI is not synchronised with the UK Diptera checklist maintained by Peter Chandler and periodically issued as a pdf (most recently in March 2018). In particular some of the new names given in Michael Ackland's paper in Dipterists Digest, 2010, **17**, 79-82 are not yet available to IRECORD users, nor is the species *Anthomyia plurinotata* reported as new to Britain in DD 2014, **21**, 201-2. Records of such species have been tagged with queries and appropriate comments in IRECORD so that they can be corrected in due course.

As of 27 July 2018, IRECORD contained 11,759 records of Anthomyiidae. All but 800 have been accepted as either "correct", indicating that a verifier has been able to independently check the identity from photographs or the actual specimen, or "considered correct" where reliance is placed on the skills and experience of the recorder. Only 263 records met the first of these conditions. Of the 800 remaining records, 187 are subject to outstanding queries and 92 are awaiting review, the others being considered merely plausible or unacceptable for other reasons. A major subject of the queries is *Botanophila striolata* (Fallén, 1824) following the removal from synonymy of *B. discreta* (Meigen, 1826) in 2010. Both species seem to be common and widespread according to recent data. It is proposed to introduce an aggregate in the UKSI to cover old records which cannot be reviewed or specimens which seem intermediate in character. Other queries have been raised for rarer species to ask the recorders to double-check or provide further information.

Finally, a further 5000 records for Kent have been sent by Laurence Clemons, as county recorder there. These have yet to be integrated into the IRECORD database.

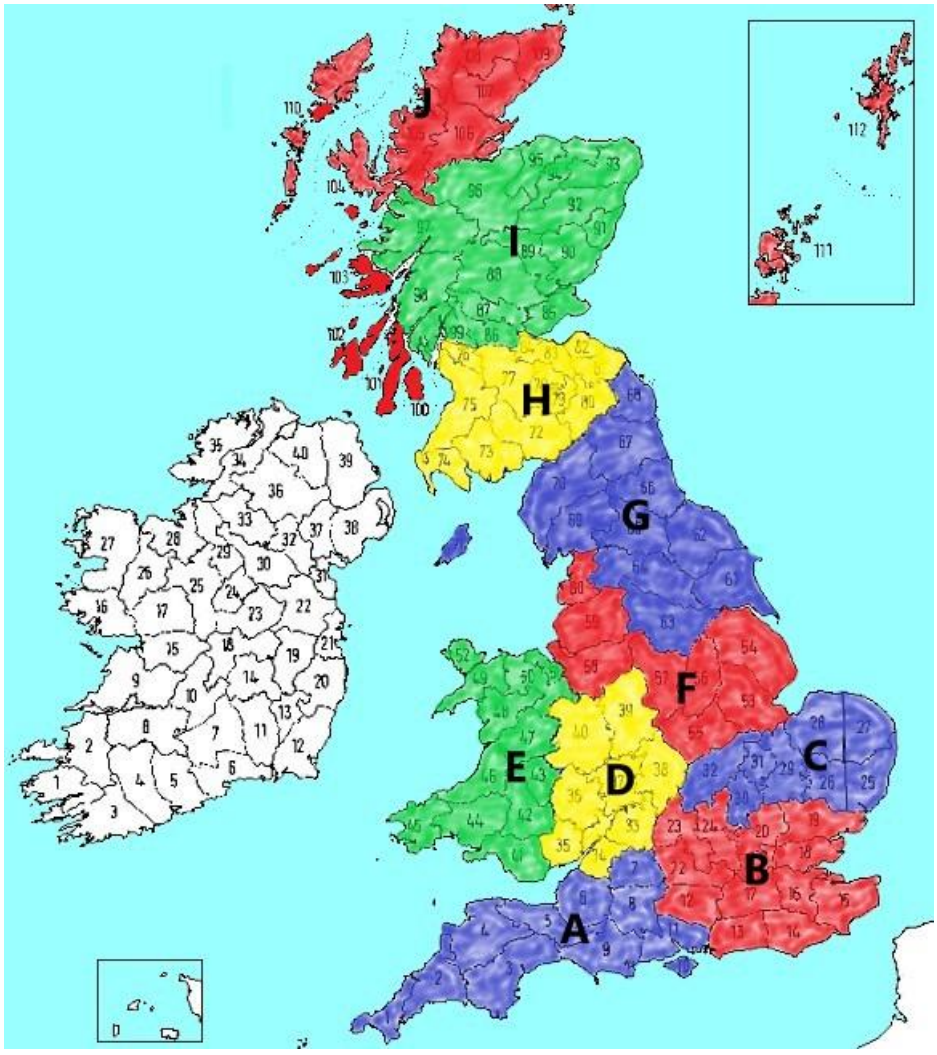
It is hoped that the February workshop has given enough confidence to new recorders to tackle this ubiquitous family of flies, which, while not very diverse in appearance, have an interesting range of habitats and lifestyles. For those who did not attend the February workshop, electronic copies of the hand-out may be obtained from me at the e-mail address below.

Many thanks to all who have contributed to organising the workshop and setting up the recording scheme, and of course to all who have contributed records.

Phil Brighton

Anthomyiidae Recording Scheme organiser

helophilus@hotmail.co.uk



Cranefly News

Dipterists Forum Cranefly Recording Scheme

For Superfamily Tipuloidea & Families Ptychopteridae & Trichoceridae

Newsletter No 34 **Autumn 2018**

Editor: John Kramer

Metalimnobia quadrimaculata P. Brock

Field Work & Records

The Dipterists Forum Summer meeting, 24 – 30 June 2018

This year we were based at the University of Staffordshire, Stoke-on-Trent, and enjoyed their excellent laboratory facilities. Four vice-counties were within striking distance giving us a wide range of habitat types to explore. The weather was hot, dry and sunny but there were a surprising number of nearly-full lakes and ponds, flowing streams and damp sites, perhaps due to the very heavy rains some 5 weeks previously. Among the more popular destinations where good lists were obtained was Wybunbury Moss, which Alan discusses below. A visit to Shavington Park was organised by Nigel Jones, this proving to be an interesting site with good damp habitats. Fallen timber yielded *Gnophomyia viridipennis* in good numbers, and *Trimicra pilipes* and *Molophilus bihamatus* were collected from the margin of the large lake. *Scleroprocta pentagonalis*, *Lipsothrix nervosa*, and *Atypophthalmus inustus* came from willow carr at the northern end of the lake. At Harston Woods adult *Dolichopeza albitarsus* were frequent and taken from both *Conocephalum* and *Pellia* liverworts. *Dicranota pavida* and *Molophilus corniger* were also seen at the stream margin. Cotton Dell (See photo taken by Andrew Cunningham) was another excellent site with *Paradelphomyia ecalcarata* and *Dicranomyia caledonica*. *Idioptera linnei* came from Budworth Country Park, recorded by John Mousley and this is a new site for this species. Another new site was recorded when a number of members came across *Tipula alpina* in Hopton Quarry.

Other interesting species found included *Tipula pierrei, Diogma glabrata, Erioptera nielseni, Lipsothrix errans, Idioptera pulchella, Dicranomyia didyma* and *Helius longirostris*. The hot dry weather probably both helped, in making insects more active, and hindered by baking dry some unshaded sites … and dipterists. The list of cranefly species recorded during the week reached 100 species, although a few more remain to be examined.

Craneflies at Wynbunbury Moss

Alan Stubbs

During the Stoke Field Meeting, 4 dipterists collected samples of craneflies which were passed to me for identification:- John Mouseley (20 species), Andrew Halstead (9 species), Rob Wolton (7 species) and Roger Morris (6 species). The first 3 dipterists made their visit on 26th June 2018. They did very well since my visit with Roger Morris was in the afternoon of the following day which was excessively hot, with few craneflies to be found, but there were two additions.

The combined total is 31 species, pretty good considering the drought and heat. The site potential covering the entire season may be three times that figure.

Wynbunbury Moss is a basin mire which is enclosed on 3 sides within an amphitheatre of steeply sloping meadows. It is a closed hydrological system in that there is no stream feeding into the basin but groundwater seepages at the bottom of the slope support sedge beds locally. One section visited was where cattle grazing reduces some sedge density and imposes trampling on wet peaty ground. The cranefly fauna of this belt includes craneflies characteristic of poor fen, and fen where some calcareous influence is present. The groundwater is captured by a rim ditch and it was good to see high water levels. On the inner side there is a belt of very wet scrub carr with some further ditches, this zone on peat being relatively nutrient - rich. The core of the basin is the moss proper, a low raised mire largely dependent on rainfall, and hence acid in character, when compared to the more nutrient rich groundwater (however, winter flooding can distribute weak levels of nutrient more widely than in dryer summer periods). Zonation is common on basin mires but too often past attempts at drainage have compromised the hydrology.

The species list is highly ambiguous as an ecological assemblage and needs interpretation to make sense. Hence I offer an interpretation of plausible habitat attributions within this high quality mosaic.

	Meadow seepages	wet scrub carr	central raised moss
TIPULIDAE			
Nephrotoma cornicina	dry ground only	-	-
Nephrotoma flavipalpis	-	drier bits	-
Priococera turcica	-	aquatic	-
Tipula fulvipennis	-	yes	-
Tipula maxima	-	yes	-
Tipula oleracea	yes	yes	-
Tipula pruinosa	cattle trampled bits	-	-
Tipula unca	yes	yes	-
CYLINDROTOMIDAE			
Diogma glabrata	-	drier bits	-
LIMONIIDAE			
LIMNOPHILINAE			
Austrolimnophila ochracea	-	saproxylic	-
Dicranophragma nemorale	-	yes	-
Euphylidorea aperta	-	yes	-
Paradelphomyia senilis	-	yes	-
Phylidorea fulvonervosa	-	yes	-
Phylidorea squalens	-	yes?	yes
Pseudolimnophila sepium	yes	-	-
CHIONEINI			
Erioptera flavata	-	yes	yes
Erioptera fuscipennis	cattle trampled bits	-	-
Ilisia maculata	-	yes	-
Molophilus bifidus	yes	-	-
Molophilus flavus	yes	yes	
Molophilus medius	-	yes-	-
Molophilus obscurus	yes	-	-
Molophilus occultus	-	-	yes
LIMONIINI			
Dicranomyia lucida	-	yes	-
Dicranomyia morio	yes	-	-
Helius flavus	-	yes	-
Helius longirostris	-	yes	-
Limonia macrostigma	-	yes	-
Rhipidia maculata	?	yes	-
PTYCHOPTERIDAE			
Ptychoptera minuta	-	yes, aquatic	-

The acid specialists *are Molophilus flavus* (preferring some scrub), *M. occultus* and *Phyidorea squalens* (the latter 2 most characteristic of open habitat but they can occur in scrub).
Those species requiring habitats with calcareous influence (better defined as a base influence, since calcium is not the only basic element: magnesium in particular being another) *are Pseudolimnophila sepium*, *Molophilus bifidus* and *Molophilus obscurus*.

Light to moderate cattle trampling is important to *Tipula pruinosa*, a local species, as well as *Eriopterra fuscipennis* a common species. *Rhipidia maculata* is known to use cattle dung as a larval habitat but is believed to also use rotting vegetation.

Many of the species in the carr zone are not strictly dependent on shade but in a site such as this, the abundance and viability of most species is carr-dependent: species such as *Diogma glabrata* and *Dicranomyia lucida* are shade dependent.
Alan Stubbs

I had a note from a very busy **Peter Boardman** to let me know that he found *Dicranomyia distendens* from the valley mire at Gentleshaw Common SSSI near Cannock Chase, Staffs last week. It appears to be the first West Midlands record.

News from the Devon Group

The Devon Group continue to produce interesting records of rare craneflies, and it will soon have an impact on Devon house prices as Dipterists from all over the country flock to Devon to try to get in on the action. Andrew Cunningham has re-recorded *Molophilus cziziki* at the only Devon site where it was previously recorded in 1997 by Adrian Plant. The first British record was made in Brecon by F.W. Edwards in 1937, and there have been only some 20 British records of this species since then. Andrew has also recorded *M. niger* this year.

The soft cliffs of Devon also produced specimens of another rarity this year, *Dicranomyia (Idiopyga) lackschewitzi*. The genitalia of this subgenus (See photo by JK ©NHM) are large but seem glass-like in a number of ways. The cuticle is thin, transparent, reflective and brittle and so they must be prepared for microscopic examination with care.

Idio - pyga is derived from Greek words meaning 'distinct- rump' and so the members of subgenus could be referred to as 'big-bottoms'. Since a diagnostic feature for *lackschewitzi* is a club-like structure covered with bristles, an appropriate English name for the males of *Dicranomyia lackschewitzi* could perhaps be 'the hairy-clubbed big-bottom' !! However, it would be most inappropriate for the females of the species.

John Mousely's collection from this site included *Dicranota claripennis,Gonomyia tenella* and *Dicranomyia goritiensis.* Mark Marshall recorded *Ctenophora pectinicornis* for the first time from his light trap in Devon (SX783512, 18 June 2018). [Also see below. Ed]

Some Scottish records from Kjell Magne Olsen

On his holiday in Argyll and Bute, Scotland, at the end of May, Kjell Magne Olsen, an entomologist from Norway, recorded a number of lesser-known species. At Taynish (NR7283) *Dicranomyia distendens* and *Orimargo virgo* were recorded. *Tasiocera fuscescens*, and *Dicranomyia radegastri* Starý (m) were recorded at Glen Nant NNR (NN0127). This latter would be a first for Britain if confirmed. It was taken together with *Dicranomyia quadra* which Kjell Magne also found to be plentiful in the Taynish NR, and some other sites.

Neolimnophila carteri was recorded from Middle Hill (NR8381) and *Ormosia fascipennis* from Lochead Cottage (NR7677). Balmaha in Stirlingshire (NS4191) yielded *Tipula alpium* and *Ula mixta* (f). *Dicranomyia caledonica* (m) was recorded from NW Barachander (NN0226)

Two tipulids new to the Outer Hebrides
Phil Brighton

After a sun-scorched week around Stoke-on-Trent with the Dipterists Forum field meeting, it was a relief to go off to the Outer Hebrides for the first week of July. It was a general wildlife holiday led by Robin Sutton and Martyn Jamieson for the Field Studies Council, and any Diptera recording was purely incidental. The weather was still fine though considerably cooler and cloudy at times. Two observations are worthy of note in this newsletter.

On the day of arrival (2nd July) after the dramatic aircraft landing on the beach at Barra, I found a female *Tipula maxima* in the gents at the Castelbay Hotel. Then, during our exploration of the sandy north tip of the island at Eoligarry on the 5th, I spotted another member of the subgenus *Acutipula*, a male *T. luna* apparently drinking from hogweed.

A comprehensive review of the Diptera of the Western Isles was one of the last papers published by the late Peter Skidmore in 2008 in *Dipterists Digest* Vol 15 No 2, Second Series, pages 99-194. This provides a detailed compilation of records by the author and others over many decades. While there were numerous records of these two species in the Inner Hebrides (or Ebudes as they are called in the review), there were none for the Outer Hebrides (called simply the Hebrides by Skidmore). Neither does the NBN Atlas show any records there. It seems unlikely that these large species could have escaped detection for so long, and so it would appear that they are recent arrivals, perhaps migrants in the current hot weather, along with the many *Scaeva pyrastri* seen.

Phil Brighton

Some Spring 2018 Records From Northamptonshire
John Showers

Generally, I only receive one or two records of comb-horned craneflies each year. However, this Spring has seen an increase in the number reported from around the county. I do not believe it is due entirely to increased recorder effort but may reflect a greater emergence than previous years I wonder if this has been noted elsewhere? [This increase seems to occur in hot Summers and may be due to increased dispersal activity. See for example Cranefly New #26, Autumn 2013. Ed.]

Ctenophora pectinicornis (Linnaeus, 1758), reported from Fineshade Wood in Rockingham Forest, the Nene Valley near an avenue of Limes, Hollowell Reservoir and from several parts of Yardley Chase MoD area, including a conifer plantation on an area of old coppice stools.

Dictenidia bimaculata (Linnaeus, 1770) has been reported from Old Sulehay Forest, Yardley Chase MoD area and Salcey Forest. In Yardley Chase it was regularly recorded from all parts of the park and forest areas and on 13th June at least 10 individuals were recorded together at the old tree trunk that was illustrated in the Autumn 2017 Bulletin in the article on the 2017 Spring Field Meeting.

In July, Alan Stubbs and I visited some alder carr fed from some seepages alongside the River Nene. Here we found an interesting array of craneflies, despite the site being much drier than usual. These included such locally scarce species as *Molophilus bihamatus* de Meijere 1918, *Ellipteroides lateralis* (Macquart, 1835), *Gonomyia recta* Tonnoir, 1920 and *Dicranophragma miniscula* (Edwards, 1921). This habitat is extremely scarce in Northants and efforts will be made over the winter to try to find similar areas. One such area, in Fineshade Woods, produced *Ellipteroides lateralis* and *Pilaria fuscipennis* (Meigen, 1818) during a bioblitz.

John Showers

***Ctenophora ornata* Meigen, 1818 recorded at Moth Trap**

Ashley Leftwich

Working under a Forestry Commission collecting permit, Bournemouth Natural Science Society (BNSS) ran a UV moth trap at Pig Bush [OS Ref. SU36041484] in the New Forest on the evening of Saturday 7th July 2018. Pig Bush is a stand of Ancient Semi-Natural Woodland with numerous mature trees of Beech *Fagus sylvatica* and Pedunculate Oak *Quercus robur*, and is bound to the south by an open landscape of lowland heath and mire surrounding the Shepton Water drainage system. The weather conditions were warm and humid, and a count of 77 moth species confirmed the ideal weather conditions.

During the trapping session a series of four male *Ctenophora ornata* Meigen 1818 were attracted to the 125W MV lightbulb between approximately 2300 hours and midnight, i.e. about two hours after sunset. This species is well known to be responsive to UV lights (e.g. Falk, 1991) and the New Forest National Park is widely regarded as its stronghold in the UK – with the NBN Gateway showing 70 records for the SU major square.

This large and distinctive saproxylic fly is Nationally Endangered (RDB1) and regarded in Continental Europe as an indicator of surviving primeval forest within the European deciduous forest zone. In the UK its larvae have been bred from the nutrient-poor rot material of veteran Beech, but a range of host trees are known in Europe including elm *Ulmus* spp., horse-chestnut *Aesculus* spp., maple *Acer* spp. and *Malus* spp. (Menier, 1973; Savchenko, 1973). However, despite being known for over 200 years, new locations are still being found e.g. Sherwood Forest in the UK in 2009 and 2013 (Pendleton & Pendleton, 2013) and recently found in Poland between 2005 to 2009 (Bakowski *et al*., 2011). There is a suggestion that the warming world climate could favour a range expansion in this species.

References

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Falk, S. 1991. *A Review of the scarce and threatened flies of Great Britain (part 1)*. Research and Survey in Nature Conservation No. 39. Nature Conservancy Council, Peterborough.

Menier, J.J. 1973. Les Ctenophorinae de France (Dipt. Tipulidae). *Annales de la Societe Entomologique de France*, **9** (4): 929-942.

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Savchenko, E.N. 1973. *Family Tipulidae. Subfamilies Tipulinae (Final Part) and Flabelliferinae*. Fauna of the USSR, Diptera 2, 5. Nauka, Leningrad, 282 pp. [In Russian]

***Pedicia rivosa* larvae.**

Judy Webb. (Photos by the author)

More observations of cranefly larvae are being recorded and Judy Webb found 2 larvae of *Pedicia rivosa* under a rotting tufa-encrusted log in a small shaded stream at Raleigh Park, Oxford (SP4905) in April this year. She observed how these large predatory larvae kept inflating and deflating a segment at the tail end – behaviour mentioned in T. T. Macan's book, 'A guide to Freshwater Invertebrate Animals'. Perhaps it serves to anchor the back end of the body while the front end pushes against it, using the hydrostatic skeleton of the haemolymph. [In Cranefly News #33 Alan Rowland recorded the same species in Cornish streams.]

For those members who enjoy messing about in streams a lot of useful work could be done to study the ecology of aquatic cranefly larvae, not only in the Pediciidae. Larvae of many species of Tipulidae and Limoniidae spend at least part of their life cycle in fresh water. An advantage of this interest is that it could provide some field-work in the winter months – in addition to the pinning, identification and recording !! There are 2 aquatic genera in the Pediciidae, *Pedicia* and *Dicranota*. Both are predators and both have sharply pointed jaws for gripping prey, although larvae of *Pedicia* eventually grow to twice the size

of *Dicranota* and presumably feed on larger prey. The former species has 4 pairs of cylindrical 'false legs' while the latter has five pairs.

Behaviour

Lecking behaviour in *Tipula lateralis*.

Peter Smith. (Photo by the author)

At Netherfield Lagoons we have a path that is crossed by a very small stream. Where it crosses the path there is a concrete lined dip, that collects a little water as the stream passes through. The hot weather has evaporated some of the pool and exposed wet, slightly muddy, concrete which is in direct sunlight for much of the day, so gets quite warm.

The craneflies, *Tipula (Yamototipula) lateralis*, about five males, pick a spot on the damp concrete and sit there like jump-jets ready for take-off. As soon as another cranefly approaches they jump up to intercept, going extremely fast, from my experience of craneflies. They contact the other cranefly and the two of them spin incredibly quickly before breaking off and settling back to their spots.

I was not aware that craneflies behaved in this way, it is almost like they are on a lek. So far I have seen no females and don't know where they are.

[Has anyone else seen this kind of behaviour in *T. lateralis*, or other species of *Tipula* ? Ed.]

Observations on *Metalimnobia quadrimaculata* in the New Forest, 2018

Paul D. Brock. (Photo by the author)

Having observed the attractive *Metalimnobia quadrimaculata* (RDB2) on beech by day in the New Forest several times from May to July, I was surprised to see a number on oak in July 2018. Although not searching for them, I usually see *M. quadrimaculata* resting singly on beech trees or beech logs mainly at well known sites such as Denny Wood, Mark Ash and Ladycross. The craneflies are well known to be associated mainly with the fungus *Inonotus bispidus* on beech, but may be attracted to a wide variety of bracket fungi in deciduous woodlands (Alexander, 2002. English Nature Report 467). At Ladycross (SU336030), a site well known since Victorian times for two species of crimson underwing moths, I observed at least ten at the base of an old oak on 22 July 2018 at dusk, on and around a smart, new *Inototus dryadeus* [See photo on banner header]. This fungus turns rather dirty brownish colour with age. The underside also becomes greyish, yellowish or brownish with age. Seven specimens were still present on 25 July, on both occasions including recently emerged adults.

My thanks to Sara Cadbury for identification and comments on the fungus.

Taxonomy and Identification

It is worth drawing attention to the draft cranefly keys as a source that presents numerous subjects for worthwhile investigation. Clearly defined differences - discontinuous variations – are the ideal characteristics to use in keys, but often we have to make do with characters which overlap to some degree with other species. If we have to deal with a battered specimen sans legs, sans antennes etc., then these extra confirmatory characters can be useful. Distance between the eyes beneath the head is used as one of the characters in the part of the draft *Tipula* Key, to identify *Tipula submarmorata*, and to separate *T. varipennis* and *T. pseudovariipennis (p14-15)*. Ken Merrifield has done some preliminary exploratory work on this topic and it will be worth publishing his experience and thoughts on this problem in a future issue.

It is often necessary to work with plenty of specimens in order to get reliable representative values so your voucher specimens may be very useful.

Recent Publications

1. Hancock, E.G and Moore, P.G. 2017. Alexander Cuthbertson (1901 -1942): from Scotland to Rhodesia, a dipterist's journey. Dipterists Digest 2017 24, 1-31.

Cuthbertson was a keen naturalist, professional applied entomologist and dipterist. He was born in Govan, Glasgow and went to Rhodesia in 1926 to work as a Junior Entomologist in the Dept. of Agriculture. He died aged 41 but the focus of his short

working life was the larval ecology of flies. The article is a very interesting account of dipterology and the personalities involved prior to WWI.

2. Kramer, J. 2017. Fungal hosts of Ula Haliday (Diptera, Pediciidae in Britain with reference to the collection of P.A. Buxton in the Natural History Museum, London. Dipterists Digest 2017 24, 195-205.
When Buxton did this work on the flies associated with fungi between 1950-1955, only a single species of *Ula, Ula sylvatica (Meigen 1818)* had been designated. His collection was curated first at the London School of Hygiene and Tropical Medicine, where he worked, and then at the NHM. The genus has now been split and three British species are now recognised. In this study more than thirty of Buxton's original *Ula* specimens were re-identified by the author. An attempt was made to allocate fungal preferences to the different *Ula* species. This still remains a tantalising problem !!

3. Macdonald, M. 2017. Prionocera pubescens Loew (Diptera, Tipulidae) in Highland. Dipterists Digest 2017 24, 211-217.
This study increased the known Scottish sites for *P. pubescens* from a single site to 14 sites in 5 hectads. Interesting facts including habitat descriptions and species assemblages are described

4. Manual of Afrotropical Diptera, **Vol. 1. Introductory chapters and keys to Diptera families, edited by A.H. Kirk-Spriggs and B.J. Sinclair. Suricata 4, 2017, i–xiii+1–425. Price: ZAR350. [£39.00] ISBN 978 1 928224 11 2. Manual of Afrotropical Diptera, Vol. 2. Nematocerous Diptera and lower Brachycera, edited by A.H. Kirk-Spriggs and B.J. Sinclair. Suricata 5, 2017, i–xii + 426–1361. Price: ZAR520. [£49.00] ISBN 978 1 928224 12 9.**

Although these volumes are beyond our usual remit, they are never-the-less worth flagging up for the most recent thinking about Diptera. The Craneflies are covered in Volume 2, and Chapter 14, 'Tipulidae and Limoniidae', occupying some 50 pages (pp 427 – 477) is written by Herman de Jong. There are no genera described for the families Cylindrotomidae and Pediciidae since these are currently thought to be absent from the Afrotropical biogeographic region. Eleven genera of Tipulidae are described, three of which are Palaearctic. In the family Limoniidae 58 genera are described, 32 of which are Palaearctic. The b/w illustrations include those on morphology, the wings for each genus, the larva of *Limonia* and the pupa of *Austrolimnophila*.
One innovation which comes from the study of fossil craneflies, is the re-naming of vein A1, the first anal vein, as CuP - the posterior Cubitus. The current 'cubitus vein' is now CuA, the Anterior Cubitus vein. So we now have the cup cell – the posterior cubital cell, and then the anal cell, going round the wing in the conventional way. The genus The word 'rostrum' is still used to describe both the anterior part of the head, and the beak on the inner inflated style of *Dicranomyia*. The volumes are amply illustrated and very well presented - a pleasure to use. The remaining two volumes are scheduled to be published in 2019. They are available from Pemberley Books at the prices shown in GB Pounds above.

Thanks to all the contributors. The next copy date for the Spring Edition of Cranefly news (#35) is December 15th 2018

Hoverfly Newsletter
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This issue of the newsletter is one of the shortest in recent years, as few articles were offered in the second half of 2017. The first Hoverfly Newsletter was produced in October 1982, a year before the publication of the first edition of **British Hoverflies** (Stubbs and Falk**)**. In that first newsletter Philip Entwistle informed readers that funds would probably be available to support two issues per year; however the newsletter got off to a slowish start and 1988 was the first year (with numbers 7 and 8) actually to have two issues. Since then there have only been two years that did not have two issues, and for many years they have coincided with the distribution of the twice-yearly Dipterists Forum Bulletin. There is a temptation when not much copy has been received for an editor to delay publication for six months in the hope that further articles will be submitted in that time. However I continue to resist that particular temptation in order to keep the content topical - a newsletter should, after all, be about *news*. In the first newsletter Philip envisaged the publication as typically comprising 4 to 6 sides (of A4); at least this issue conforms to that pattern.

Hoverfly Newsletter No. 1 featured articles on *Eriozona syrphoides*, *Dasysyrphus friuliensis*, *Parasyrphus malinellus* and *Melangyna quadrimaculata* among others. Please continue to send in articles on any aspect of hoverflies.

Copy for **Hoverfly Newsletter No. 65** (which is expected to be issued with the Autumn 2018 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 20th June 2018.

The hoverfly illustrated at the top right of this page is a female *Leucozona glaucia*.

Hoverfly Recording Scheme Update: Winter 2017

Stuart Ball, Roger Morris, Ian Andrews, Joan Childs, Ellie Rotheray and Geoff Wilkinson

HRS REACHES 1 MILLION RECORDS!

As of 16 December 2017, the HRS database contains 1,050,003 records, which comprise a mixture of full and partial records together with a few records from other families that have crept in on spreadsheets. When filtered to extract 'unique' records, the dataset stands at 911,709 records, to which a further 87,345 publicly accessible records exist on the NBN that we do not have on the main dataset. The combined total therefore stands at 999,186 records. There are also some 20-25,000 records on iRecord and other datasets that will be absorbed in the coming weeks as well as around 8,000 records from the Facebook group still to absorb and

there is a steady stream of spreadsheets arriving daily. So we can say with confidence that the scheme has passed the 1 million records milestone!

Graph 1 shows that there has been steady growth in the database since we took the scheme on in 1991 although there was lull in activity in the early 2000s. Since 2014 the jumps in incoming data have been somewhat more pronounced because the UK Hoverflies Facebook page is so active; it now generates at least 30,000 records a year, which is at the top end of what we used to receive from all our recorders up to 2011! In the last year we have seen an important shift towards FB members maintaining their own spreadsheets and submitting these independently. This is a great development because we would otherwise not have managed to keep on top of the data-flow. This change needs to continue into the coming years because Stuart and Roger need to ease out of the driving seats and let others take over (more in a separate note).

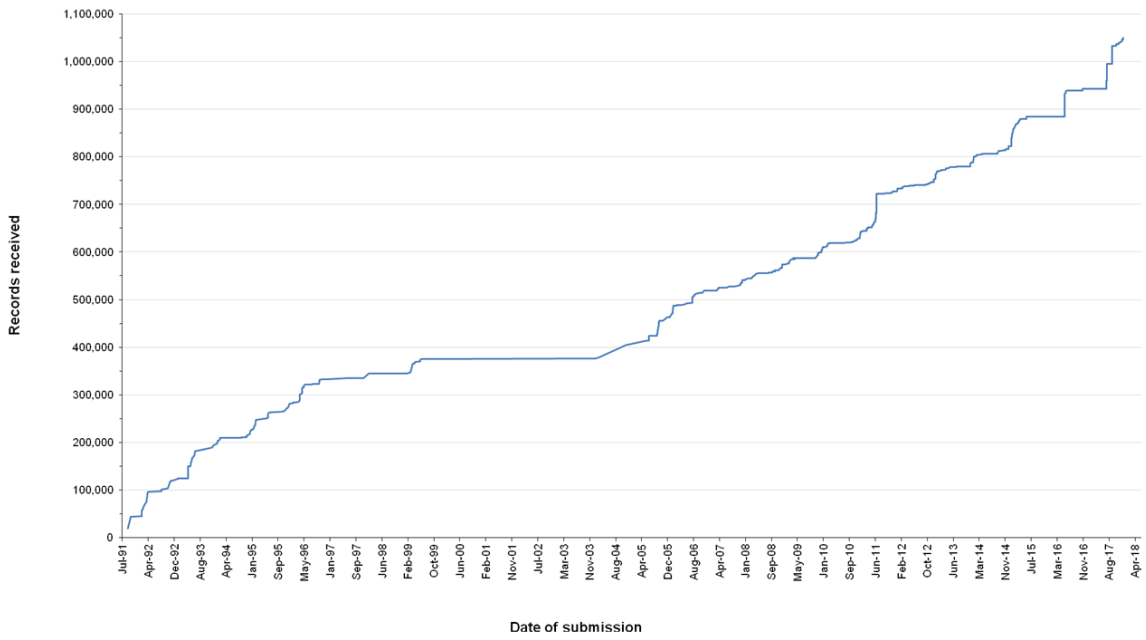

Figure 1. Growth of the HRS database since 1981

When the last provisional atlas was published, just 20 recorders contributed 50% of the data. In the following 6 years, the situation has changed; we now find that 46 recorders have contributed 50% of the data and 201 recorders have provided 80% of the data. This is a much-needed diversification of effort. Nevertheless, the scheme is still heavily reliant upon a relatively modest core of recorders. We think that this will change further as there are strong signs within the Facebook group that a significant number of people are now very active recorders. Figure 2 indicates how the composition of active recorders now stands.

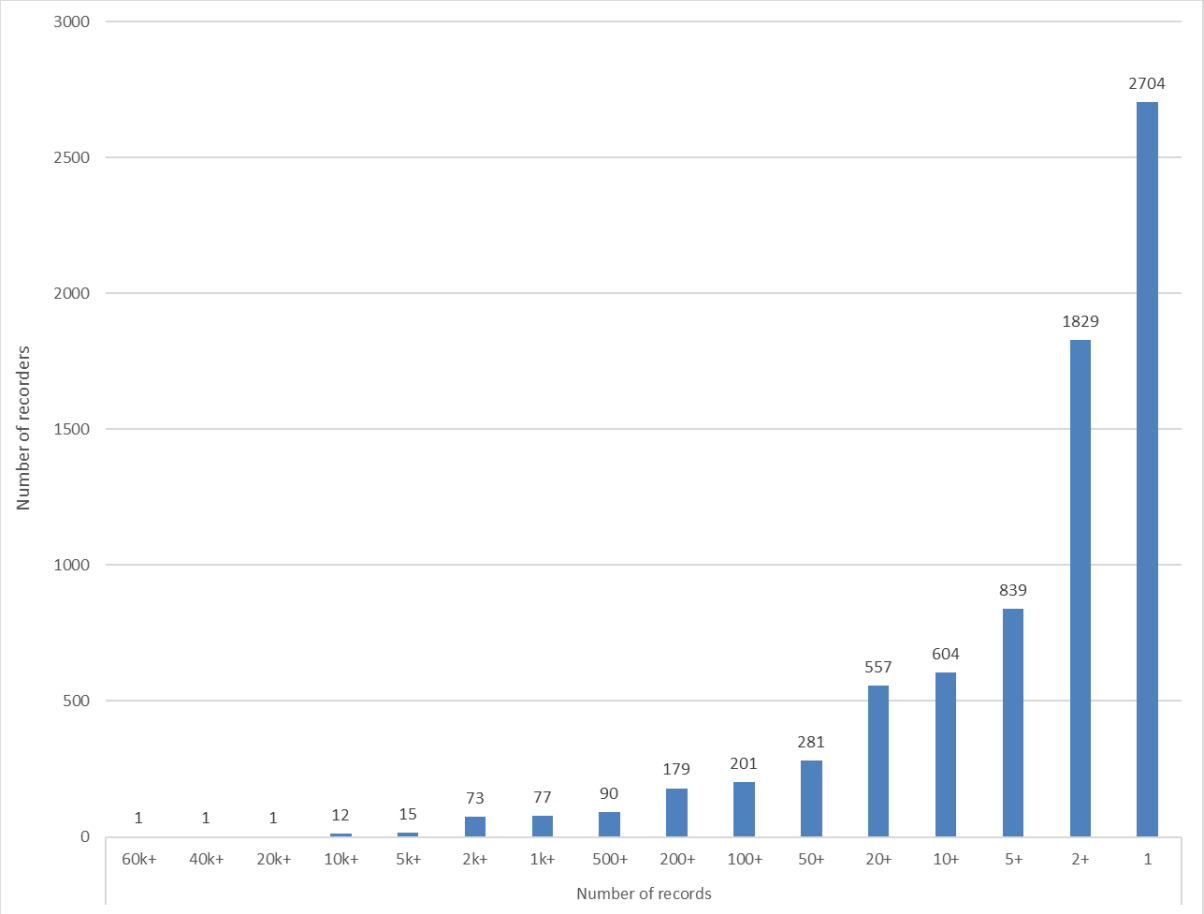

Figure 2. Numbers of recorders against the numbers of records submitted

The big question is "what are we actually doing with the records?" An important question because it is all very well accruing records, but something needs to happen with them. We are making progress! This autumn, Stuart and Roger have updated the charts and maps in a revised draft atlas and Roger has flagged up the areas where there is a need to question the records; he has also revised the species account texts. What now needs to happen is for the questionable records to be investigated and either marked "requiring confirmation" so that they don't show in the atlas, or accepted. This is a big job and will take several months. Nevertheless, a revised atlas is on the cards for 2018.

Stuart and Roger have also spent a lot of time investigating the trends seen in individual species and trying to establish how reliable they are. This analysis suggests that the scale of the shift away from specimen-based records is such that trends for some species are being affected. There is a draft paper in preparation and we think it is of sufficient importance to be placed in one of the high impact journals because it is highly significant for all models that depend upon data from traditional specimen-based recording as well as modern photographic recording. Modelling has also shown that it is probable that at least one, and possibly more species of hoverfly is retreating from south-east England. If this is the case, it is also an important finding because there are very few studies that clearly show range retreat (apart from in montane situations where some species have been shown to be retreating to higher altitudes). We have a bit more work to do on this analysis, but we think that it too merits a high impact paper. There are two or three other items that need to be published that will probably go into lower impact journals. Once they have been published, more can be said in this newsletter and on the Facebook groups.

Call for records

Many recorders submit data on a yearly basis, but there are some who do so intermittently. We would be very grateful if those who have not submitted records recently would do so. Contact Roger and he will let you know when we last had your records. Hopefully, by the end of 2018 we will have the database as realistically up-to-date as possible and will be able to place it on the NBN.

Time for a succession plan for the HRS

Stuart Ball & Roger Morris

When we took on the HRS back in 1991 it was in a sad state. There had not been a scheme organiser for 4 years, the data were stacked on cards in boxes at BRC and there was little prospect of an atlas or any access to the data. In the following years that stack of data was computerised. Electronic data were trawled and absorbed into the database and eventually two provisional atlases were produced. The data were also used to undertake the species-status review for hoverflies that was published in 2014 and by a variety of teams who have used occupancy models to investigate trends in pollinating insects and in wildlife in general. This year we passed the 1 million record mark, which is a magnificent milestone for a scheme that started out as a simple mapping project.

We have been at the helm for 26 years and time is approaching when we must think about passing on the role of custodians. We are not the HRS – it is bigger than us; and if we are to do our job properly we must make sure that successors are in place so that we can retire and let new people take the scheme in whichever direction they feel is appropriate.

Obviously we would like to provide a bit of direction in the early transition from our stewardship to that of a new team. The process has already started because we now have a much bigger team involved with the HRS. Ian, Joan, Geoff and Ellie each bring new skills to the team and make it a lot more resilient. BUT Stuart still manages the database and Roger does the vast amount of data validation and assembly. This needs to change. Both of us feel the need to find replacements, especially as we need to concentrate on the forthcoming guide to Diptera that we have promised to deliver to the Field Studies Council by early 2020.

This note is therefore a first call for volunteers to get involved in the scheme. We really need a team of data extractors/managers, a database manager and people who understand modern occupancy models to do some of the analysis. It is unrealistic to think that there are just two jobs: we need a small army of people to take over! BUT we also want to find people who will act as ‘leaders’. Some of these roles do not necessarily require great taxonomic skills (those can develop with time). What is required is drive, vision, and a curious mind. There is definitely a place for some younger enthusiasts; are you one of those people? If so, we want to hear from you? Why do you want to get involved; what will you bring to the role and how will you make sure that you act in the interests of the scheme and its contributors?

Yellow (Marzi-) Pan Trap

Christine Storey
Wimborne, Dorset

Buying a coffee can have its unexpected moments. In mid October this year, whilst idly listening to the musical hisses and rumbles of a confectioner's espresso coffee machine, I spotted a solitary insect flying around the window area. Its route was initially haphazard until it flew near a display counter where something caught its attention. I must have blinked because I then saw the large fly walking on the surface of an iced display cake. The insect, which I'm told is a Dronefly, *Eristalis tenax*, stayed on the yellow icing flowers for a quiet couple of minutes probing the flowers with its proboscis. A couple of times it paused and flew a little to the right as if eyeing up the next floral offering only to return to the yellow cluster. Anthropomorphically speaking that fly clearly liked the look of the blooms but had to work hard to find the nectar or pollen it was presumably after. I took this photo when the barista had her back to me in an otherwise empty shop so I don't think the sensibilities of either the staff or the fly were offended by the taking of this picture.

Postscript

Hoverfly Newsletter No. 63 included a note about an association of *Ferdinandea cuprea* with the flowers of *Colchicum autumnale.* Readers may be amused to know that, following the posting of the same item on the website of the Gloucestershire Naturalists' Society, a link to it from the Society's Facebook page appeared in the newsfeeds of more than 800 Facebook users. It would be nice to think that this was evidence of a significantly increased nationwide interest in hoverflies, but the mention in the article of the vernacular name for *Colchicum autumnale*, Naked Ladies, is the likely explanation for this phenomenon. Clearly occasional mention of such terms may serve to raise the profile of hoverflies, other Diptera, and wildlife generally now that we are into an era of electronic communication mediated by search engines!

Epistrophe diaphana [David Iliff]

Volucella bombylans var. *plumata* [David Iliff]

Soldierflies and Allies Recording Scheme

Newsletter 5, spring 2018

Edited by Martin C. Harvey
ISSN 2053-471X (print)
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The Silver Colonel Odontomyia argentata *shining bright in Berkshire in 2017. Photo by Peter Creed.*

Welcome to the spring 2018 newsletter. Unfortunately I was unable to produce this one on time to be printed in the Dipterists Bulletin, but it is available online via the recording scheme website.

This edition contains news of robberflies from Suffolk, and an excellent new book on the robberflies of the Netherlands and Belgium that is going to be very useful in the UK as well (pages 2–3); a report from 2017's Bee-fly Watch (pages 4–5); updates from Cheshire and Lancashire (page 6); the spread of *Stratiomys longicornis* (page 7); and news and updates from the recording scheme, including details of the recently published conservation status review by Martin Drake (pages 8–9).

Many thanks to everyone who has contributed records, photos and articles. I look forward to hearing about all your discoveries in 2018!

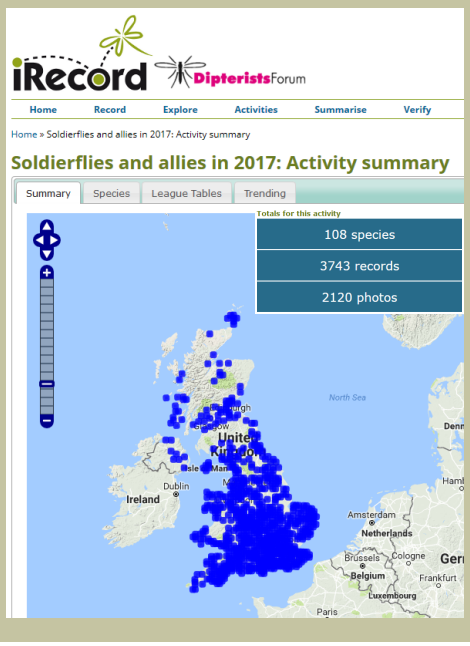
Martin Harvey

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

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



Robberflies at Purdis Heath

by David Basham

Eutolmus rufibarbis at Purdis Heath. Photo by David Basham.

Purdis Heath is within the southern section of the Suffolk Sandlings, just east of Ipswich. As part of the volunteer heath restoration team at Purdis Heath I and some colleagues have taken up the challenge of recording as many species as we can that live on and forage across the heath. At the moment the site's SSSI designation is based on its heathland specialist plants including Bell Heather and Ling and on its acid grassland species including Fescues, Sheep's Sorrel and Hawkweeds. By compiling a list of site species it is hoped that any future designations may be able to include some of the other rare or declining Heathland Hymenoptera and Diptera for example, as well as the Silver-studded Blue Butterfly, for which the site is specifically managed under the auspices of Butterfly Conservation.

To this end a small group of us during the summer of 2017 decided to make a start on the site's Diptera to see what we could find. I was already aware of some quite prominent and easily spotted Asilidae - robberflies - present on the site and had in previous years had a photo ID of *Dysmachus trigonus* and *Dioctria baumhaueri* provided by our County Recorder, Peter Vincent.

From early July through to mid-August we collected specimens on five dates as we were available and as the weather allowed. All specimens were collected from the heath itself or from the secondary Oak and Birch woodland surrounding the site and sent to Peter Vincent for identification. He very kindly provided the details summarised here.

Neiotamus cyanurus at Purdis Heath. Photo by David Basham.

Asilidae species identified prior to 2017:

- *Dysmachus trigonus* (Fan-bristled Robberfly)
- *Dioctria baumhaueri* (Stripe-legged Robberfly)

Asilidae species identified in 2017:

- *Choerades marginatus* (Golden-haired Robberfly)
- *Dysmachus trigonus*
- *Eutolmus rufibarbis* (Golden-tabbed Robberfly)
- *Machimus cingulatus* (Brown Heath Robberfly)
- *Neoitamus cyanurus* (Common Awl Robberfly)

Of particular note in my memory was the female *Choerades marginatus* that was collected from a branch picked out in a sunbeam just above a sap run on a damaged Oak tree. The run was attracting quite a cloud of flies around it as well as several Hornets that were hunting in the ooze and a Red Admiral butterfly. A good hunting spot for a robberfly it seemed to me.

We were pleased with our efforts in 2017 and will be keeping an eye out for some other species of Asilidae if possible this year. Overall we recorded 45 species of Diptera with most of them being new to our site records and a few, like some of the sarcophagids, being important county records.

Considering how close Purdis Heath is to urban Ipswich it's amazing what's there if only one takes the time to look.

With thanks to Peter Vincent, Suffolk Diptera Recorder.

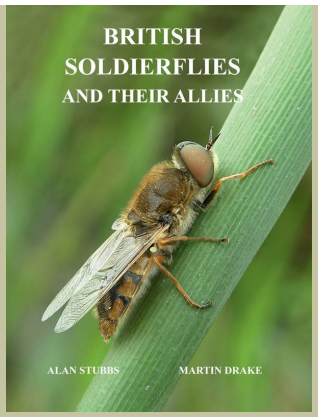
Choerades marginatus at Purdis Heath. Photo by David Basham.

New robberfly field guide

A fantastic new book on robberflies has been published: *Field guide to the robberflies of the Netherlands and Belgium*, by Reinoud van der Broeck and André Schulten. An English-language version is available, and the guide covers all the British species with excellent photos and illustrations at a very reasonable price. For more details see the publisher's website; I don't think it is possible to order copies for the UK direct from that site, but the guide is now available from the usual UK entomological booksellers.

A few things to note for UK use: the guide does of course include a number of species that are not known from the UK, and the guide uses the genus *Tolmerus* for some of the species that we include in genus *Machimus* (e.g. the common UK *Machimus atricapillus* is *Tolmerus atricapillus* in the guide). Our *Dioctria baumhaueri* is treated as a synonym of *Dioctria hyalipennis*.

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



British Soldierflies and their Allies by Alan Stubbs and Martin Drake is the definitive guide to the species covered by the recording scheme, with well-illustrated identification keys and comprehensive species accounts.

The new edition incorporates 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, and a more substantial improvement to the keys to Tabanidae (horseflies).

The price to members of Dipterists Forum or BENHS is £20 (£36 for non-members). Orders via the BENHS website: www.benhs.org.uk/publications/british-soldierflies-and-their-allies-second-edition

Bee-fly Watch 2017

Chloe Wrench admires a Dark-edged Bee-fly (photo by Dan Wrench)

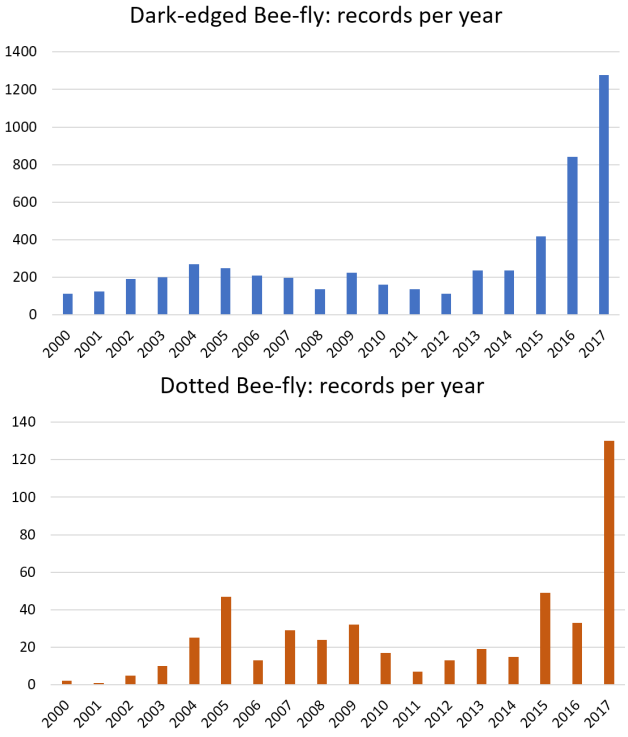
Last year saw the second of our annual 'bee-fly watch' projects, aimed at encouraging people to record the most familiar of the species covered by the recording scheme: Dark-edged Bee-fly, *Bombylius major*. In 2016 we did very well at increasing the number of available records, but in 2017 numbers rose again, with over 1,200 records sent in. The Dotted Bee-fly *Bombylius discolor* also received by far its highest ever annual total of records, with 130 for the year.

Almost 600 people contributed records in 2017, and once again Nigel Cottle topped the league with 45 records of Dark-edged and Dotted bee-flies. Chris Sellen, Ryan Clark, Tracy Money and Peter Hogan were not far behind.

In 2016 the first sighting of Dark-edged Bee-fly was reported on 13 March; in 2017 the very first report was from 2 March on the south Wales coast, with another seen on 3 March and then a steady flow of records from 9 March. Overall it was an early year, with the vast majority of sightings in March and especially April, and rather few records in May and June.

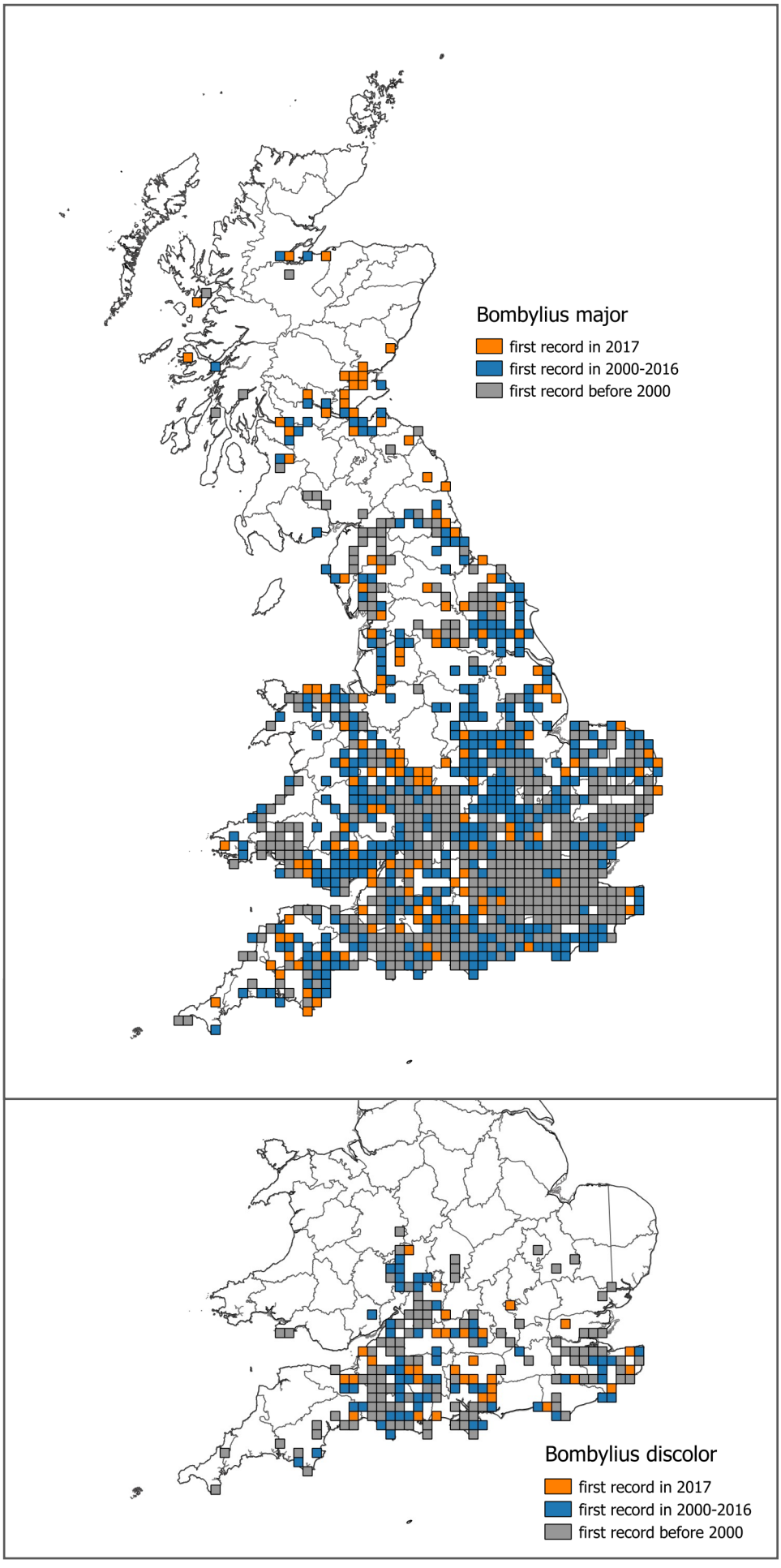
The focus on Dark-edged Bee-fly has produced a lot of new 10km-square records for this species (see map opposite), and the 2017 records include four vice-counties which had no previous records on the scheme database: North Northumberland (VC68), Linlithgow (VC84), East Perthshire (VC89) and Angus (VC90).

Bee-fly Watch provided a valuable overview of these two species in 2017, and we will be running it again in 2018. Watch the recording scheme website for updates and join in if you can.



Records per year since 2000 for the two most widespread *Bombylius* bee-fly species

A Dotted Bee-fly provides excitement for Penny and David Green during a moth trapping event



Distribution maps for *Bombylius major* (above) and *Bombylius discolor* (below). The orange squares indicate new 10km records in 2017.

Soldierflies and allies in Lancashire and Cheshire during 2017

by Phil Brighton

Atherix ibis by Trevor Southward

iRecord has been well-used for the group by dipterists and non-specialists well spread over the region (VCs 58, 59 and 60), providing a total of 203 records. This alone is maintaining the rate of recording for the current decade, which is clearly set to beat the previous best of 1231 records in the 1990s. The fact that records are available to all users as soon as they are uploaded makes it very straightforward for the county recorder to do a quick review of the year like this one.

The records include three of *Stratiomys potamida*, half a dozen or so of *Atherix ibis* adults, and a fourth record of *Tabanus autumnalis* for the region. A female tabanid found dead in a garden greenhouse in Chorley was recorded initially as *Hybomitra bimaculata*, but my examination of the well-preserved specimen against the Stubbs and Drake key clearly points to *H. distinguenda*. Either way it will be a first for South Lancashire (VC59). *Oxycera nigricornis* was recorded for only the second time in VC60 at the Lancashire Wildlife Trust's Heysham reserve.

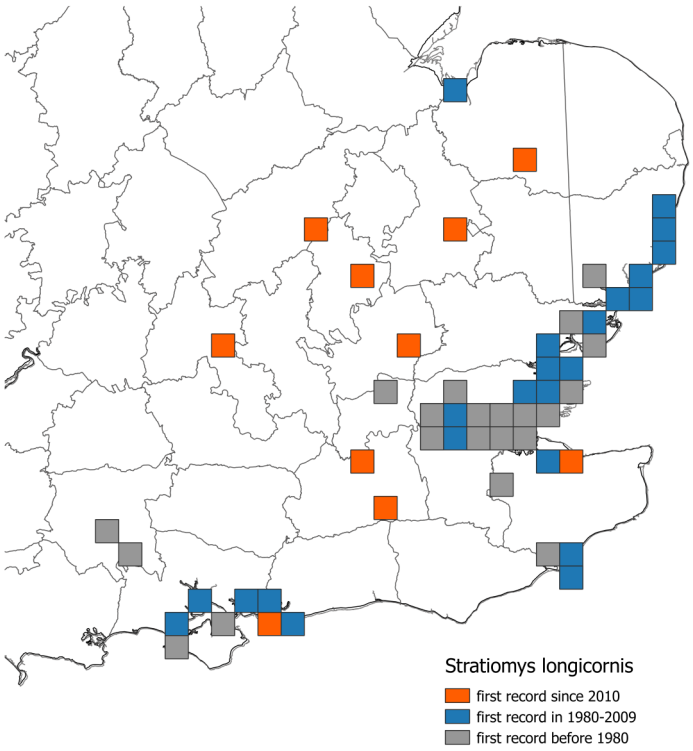
Tabanus autumnalis by Martin Grimes

I had another vice-county first with *Vanoyia tenuicornis* on 19th June at the Cheshire Wildlife Trust site of Red Rocks at the north-west tip of the Wirral. It has previously been recorded just across the Dee in Flintshire in 1996. There is also a 2006 record from Merseyside Biobank from St Helens in VC59, but I omitted this in my county checklist as it could not be verified. My morning at Red Rocks also yielded *Stratiomys singularior*, *Oplodontha viridula*, *Oxycera trilineata*, *Acrosathe annulata* and *Dysmachus trigonus* in this compact but varied site, hemmed in by the Royal Liverpool Golf Course since 1869.

My overview report on the soldierflies and allies data for the region up to 2016 is now available on Liverpool Museum's Tanyptera project website: www.northwestinvertebrates.org.uk/publications/checklists

Stratiomys longicornis heads inland

In their book on the British soldierflies, Stubbs and Drake describe the distribution of Long-horned General, *Stratiomys longicornis*, saying "For the most part, this is a coastal species occurring from Norfolk to Hampshire". That description largely held true until 2011, when it was reported from Sandy in Bedfordshire by Andy Schofield. Further inland records have accumulated since, including first county records for Hertfordshire in 2014 (Simon Knott), Surrey in 2015 (Andrew Halstead), Cambridgeshire in 2016 (Ivan Perry), Northamptonshire in 2017 (Howard Bentley) and also Oxfordshire in 2017 (Jason Gosling).



Larvae of this species are thought to specialise in strongly saline conditions in ditches and water bodies near the coast. Assuming that at least some of the recent inland records represent breeding populations (which has yet to be proven) then perhaps the spread of this species could be related to the spread of salt-tolerant plants along roadsides as a result of salt being applied to roads in winter. However, the spread of such plants has been apparent for some decades now, so maybe the soldierfly is expanding into new habitats as the climate changes. More investigation is required into the larval breeding conditions.

Stratiomys longicornis in Hertfordshire in 2014, by Simon Knott

Recording scheme updates and other news

The main recording scheme database currently contains 105,738 records, arriving at a rate of just under 4,000 per year in recent years – many thanks to all who have sent in records. 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

Training courses and resources

Soldierflies and allies will feature at the annual Dipterists Forum workshop at Preston Montford in February 2018, and we are also running a workshop for the Tanyptera Trust at Liverpool World Museum in March. As a result there are lots of new resources being added to the website, including new identification guides and a first draft of an atlas – look out for all the updates.

Social media

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

Notable records in 2017

Laphria flava by Mark Gurney

A few highlights from the 2017 records:

- *Laphria flava*, Bumblebee Robberfly (Nationally Scarce), six records from Abernethy RSPB reserve: Mark Gurney, Rosie Earwaker, James Silvey
- *Lasiopogon cinctus*, Spring Heath Robberfly (Nationally Scarce), Surrey: Gillian Pullinger; South-east Yorkshire: Ian Andrews
- *Leptarthrus vitripennis*, False Slender-footed Robberfly (Nationally Rare), Buckinghamshire: Ched George; Surrey: Rod Williams
- *Pamponerus germanicus*, Pied-winged Robberfly (Nationally Scarce), South Northumberland: John Bridges
- *Rhadiurgus variabilis*, Northern Robberfly (Vulnerable, Nationally Rare), East Inverness-shire: Gabrielle Flinn
- *Chloromyia formosa*, Broad Centurion - this is the most frequently-recorded of all the species in the recording scheme, so congratulations to Rob Wolton for managing to add a new vice-county record for the South Ebudes (recorded on both Islay and Colonsay) in 2017!
- *Odontomyia argentata*, Silver Colonel (Nationally Scarce), Berkshire: Judy Webb, Peter Creed; East Suffolk: Peter Vincent; South Lincolnshire: John Lamin
- *Oxycera leonina*, Twin-spotted Major (Vulnerable, Nationally Rare), West Norfolk: Mark Welch
- *Chrysops sepulchralis*, Black Deerfly (Nationally Scarce), Dorset: Pete Boardman
- *Haematopota grandis*, Long-horned Cleg (Nationally Scarce), Dorset: Pete Boardman
- *Spiriverpa lunulata*, Northern Silver-stiletto (Nationally Scarce), Merionethshire: Rob Wolton

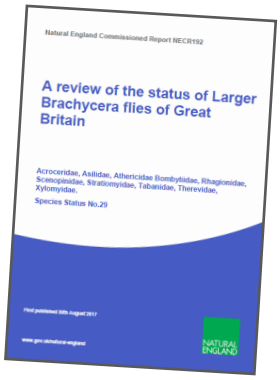
Review of conservation status for soldierflies and allies

Martin Drake's long-awaited review of conservation statuses for soldierflies and allies was published last August and can be downloaded from the Natural England website (link below). The review provides up-to-date information on the status of all 162 species in the soldierflies and allies (Larger Brachycera) group, using the internationally-agreed IUCN threat status terms and criteria. In addition, a rarity status is given for species that are nationally rare or scarce.

The review is based on all available data up to 2012, with additional data subsequently incorporated for those species with recent range changes. Species accounts are provided for species assessed as Critically Endangered, Endangered, Vulnerable, Near Threatened, or Data Deficient.

It's a shame that it has taken so long for this document to appear, following the original data collation in 2012, and it is also a shame that it has been made available only as a PDF, with no spreadsheet version that would make it easy to extract the new statuses for use in databases and for analysis. And even in the PDF document it is not entirely straightforward to look up the current status for all species: the table starting on page 11 gives the definitive list of statuses for the threatened, rare and scarce species (but misses out nearly all the common species), while the table in Appendix 1 does list all the species, but only gives the "unmoderated" rarity status, thus making it easy to pick out the wrong status for some species.

Hybomitra muehlfeldi should be treated as "Nationally Scarce" as per the page 11 table, not "Nationally Rare" as given in the appendix (Martin Drake pers. comm.). Note that *Beris clavipes* and *Philonicus albiceps* are missing from the page 11 table; both are shown as Nationally Scarce in Appendix 1, but have been moderated down from this and now have no rarity status. *Choerades gilvus* is given a status of Endangered in this review, on the basis of two records from 1990, having previously been unrecorded since 1951. However, since the review went to print one of the 1990 records has been found to be erroneous, and the other is unconfirmed, so *C. gilvus* should probably be considered as Regionally Extinct.



I hope I've managed to pick out the correct statuses and have added them to the checklist spreadsheet that you can download from the recording scheme website.

Despite the few small blemishes this new publication is very welcome and will focus attention on the many threatened species in the soldierflies group, providing a clear summary of what is known of their distribution and ecology. Hopefully it will pave the way for increased conservation and monitoring.

- Drake, C.M. 2017. A review of the status of Larger Brachycera flies of Great Britain - Species Status No. 29. Natural England Commissioned Reports, Number 192.

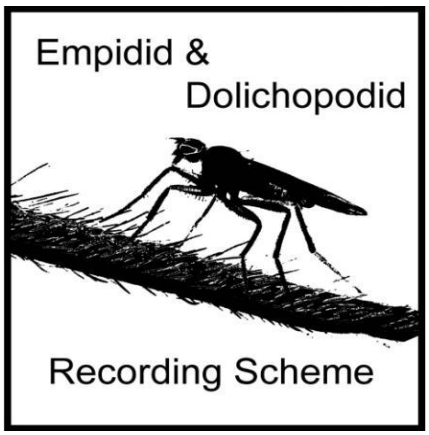
Two spring species to watch out for

There are two scarce species that fly early in the year, from about mid-April, and that are likely to be under-recorded: Silver Colonel soldierfly, and Spring Heath Robberfly. It would be great to get more people out looking for them, but you do need to find suitable habitats to stand a chance of seeing them.

Silver Colonel soldierfly, *Odontomyia argentata*
A soldierfly of fens and marshes. The males have distinctive silvery abdomens (see Peter Creed's photo on the cover of this newsletter). Most records are from the south and east of England (in a band running from the New Forest to Norfolk), but it has been found in the midlands in recent years and could be spreading further. Full details and identification tips are at: www.brc.ac.uk/soldierflies-and-allies/silver_colonel


Lasiopogon cinctus
by Ian Andrews

Spring Heath Robberfly, *Lasiopogon cinctus*
This small robberfly is found on sandy heathlands, dunes and other sandy habitats. Look for sheltered spots and south-facing banks with bare ground or stones for basking. Although Surrey has the greatest number of records, there are scattered sites in many counties across much of England and Wales, and the blank areas on the map may represent under-recording more than absence. Full details and identification tips are at: www.brc.ac.uk/soldierflies-and-allies/spring_heath



Newsletter No. 23 Autumn 2018

Editorial

This is again a purely dolichopodid issue but we hope to satisfy empid enthusiasts next time. Anyone wanting to get to grips with empids could book onto the next Preston Montford training course on empids and hybotids (see main Bulletin).

Interesting dolichopodid records from the Snowdonia field meeting, 11-17 June 2017

Martin Drake

I was grateful for the large number of specimens forwarded to me during the week's field meeting. These and my own collecting resulted in over 6,400 specimens of 109 species from about 53 sites in 22 hectads. This total slightly exceeded the 101 species recorded at the Bangor meeting in 2014 (Drake 2015). There were ten nationally scarce species, using Falk & Crossley's (2005) statuses.

Among the most widespread species, one worth noting was *Dolichopus signatus*, which ranked fourth in the number of sites occupied and not far behind in terms of specimens caught. This is not particularly remarkable since *signatus* is widespread in Britain apart from an apparent hole in its distribution in central England, but in north Wales is outshone the usually abundant *D. plumipes* and *D. ungulatus*. Another particularly widespread species, which like *D. signatus* is hardly rare, was *Anepsiomyia flaviventris*, in 10th place, beating other small but very common species like *Campsicnemus curvipes*, *C. loripes* and *Syntormon pallipes*. Going further down the list were several species that are widespread in Britain but apparently rare in north Wales; these included *D. picipes* (7 sites) which may reflect its preference for at least base-rich wetlands, *Gymnopternus metallicus* (ten sites), *G. celer* (six sites) and *Rhaphium monotrichum* (nine sites). These are all obvious species so are not likely to have been overlooked during more general recording, so are probably genuinely uncommon in north Wales.

The coast was outstanding for five nationally scarce species. *Dolichopus nitidus*, which may not actually need coastal conditions, was found at four sites: Morfa Harlech wet slacks, Cors Geirch poor fen, and two sites (Traeth Glaslyn, Maentwrog) along the Afon Dwyryd; these were the first records since 1988. *Dolichopus notatus* was particularly numerous at Morfa Dyffryn and Morfa Harlech, mainly in the damp dune slacks but also in dry scrubby dunes and at saltmarsh. At the Morfa Dyffryn saltings, *D. strigipes* was frequent, along with a stray from Morfa Harlech dunes (it's a saltmarsh species); these are useful confirmation of the population found at Anglesey in 2015, and is one of the rare occurrences on saltmarshes on the west of Britain. The most interesting saltmarsh species was *Muscidideicus praetextatus* which was found only at the Morfa Dyffryn saltings, but at least it is now known in north Wales away from Anglesey. The final coastal species of interest was *Dolichopus signifer*, at Bontddu close to the estuary of the Afon Mawddach; it has not been recorded in north Wales for nearly 30 years.

The remaining nationally scarce species do not fall into neat ecological groups. A species new for north Wales was *Tachytrechus consobrinus* which is almost confined to bog seepages and pools, and was found at a tiny patch of wet heath at Utica by the Magnox power station. Another acidophile is *Campsicnemus pusillus* which is usually found in acid seepages, mire or poor fen, so the records at same patch of wet heath at Utica and Cors Fochno (Borth Bog) were from the 'right' habitat, but specimens from saltmarsh at Ynys-hir may be strays from adjacent freshwater marsh. *Campsicnemus pumilio* is usually found at water margins of lakes and ponds, and in 2017 was found at ponds on raised bog at Cors Fochno (with *C. pusillus*) and damp slacks at Morfa Harlech. *Hercostomus fulvicaudis* has been muddled with *rothi* but western records may be correct. The single previous Welsh record, with rather poor accompanying data, was from Ynys-hir where it was found at two points in 2017. Thus this single site appears to be its only Welsh locality, but at least the population may be stable. *Thrypticus tarsalis* was found in a bizarre location (for a species whose larvae probably feed within *Eleocharis* spike-rush) at Pont Rhyd-y-fen at a disused railway cutting where there was a pool under sallows, at about 350m OD in a somewhat bleak landscape. This is certainly the first record for the species in Wales away from the south coast but records of *Thrypticus*, except for two very obvious but rare species, are probably full of errors so maybe this is a completely new record for Wales.

Three species that we found will upgraded to Nationally Scarce in the forthcoming dolichopodid status review. *Orthoceratium lacustre* is such a lovely species that it would not be overlooked (there's more on its ecology in Pollet *et al*. 2017). Apart from a record from the Dee estuary, it has not been seen in north Wales for 40 years until two specimens were found at a tiny patch of the Morfa Dyffryn saltings. *Chrysotus pulchellus* and *Dolichopus acuticornis* were both widespread at Morfa Dyffryn and less so at Morfa Harlech,

and *C. pulchellus* was sometimes abundant on sparsely vegetated damp slacks. It was also present on Cors Fochno, probably at a seepage in pasture at the margin of this raised bog.

I find *Medetera* an exceptionally difficult genus, with no key working well. A species from the environs of the field centre at Tan-y-Bwlch and woodland above it may well be new to Britain but I cannot get a convincing identification. If there is any rhyme or reason to the genus, it is close to *gracilicauda* Parent but I can make it fit two others.

A first for me was the newly described *Sympycnus septentrionalis*, which has eluded me for years – it has been known for a long time but only just sorted out from the common *S. pulicarius*, both previously muddled under *desoutteri* (Pollet *et al.*, 2015). It was numerous and widespread at the estuarine saltmarsh at Ynys-hir where *S. pulicarius* was scarce, and Nigel Jones found it at saltings at Llanbedr, thus supporting the suggestion that the species is coastal, and reinforcing a possible restriction in Britain to saltmarsh.

There's plenty to say about many more species – hardly surprising when dealing with a third of the British fauna in one short field trip – such as apparently new records for north Wales for *Dolichopus claviger*, *Hydrophorus bipunctatus*, *Sybistroma crinipes*, *Syntormon zelleri*, *Thinophilus flavipalpis*, *Thrypticus laetus*, *T. bellus* and *Medetera ambigua* which keys better to the reputedly Scottish *M. infumata* (as I said, no keys work well for this genus). But I'll leave the account as it stands. One day the data will be available on the NBN Atlas.

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Hercostomus nigrilamellatus (Macquart, 1827) reared from decaying oak wood

Robert Wolton

In May 2017 I gathered a few handfuls of red rotting wood and humus from the top of the hollow trunk of an ancient pollard oak and placed the decaying material in a covered bucket. Within a month, a male and female *H. nigrilamellatus* emerged. This species is rated Nationally Scarce species by Steven Falk and Roy Crossley, 2005 (*A review of the scarce and threatened flies of Great Britain, Part 3: Empidoidea*, published by the JNCC). Keith Alexander, in his 2002 review *The invertebrates of living and decaying timber in Britain & Ireland* (English Nature Research Reports No. 647) records that the species has been reared from decomposing wood debris in the base of hollow trees, etc; willow, poplar & elm. Oak can now be added to this list. The tree in question is close to the River Lew within Rutleigh Wood (SS518008), Northlew, Devon, an ancient broadleaved wood. In July 2015 I caught 11 individuals (10 males and 1 female) in a Malaise trap placed over a rotting alder stump in a wet woodland at Scadsbury Moor (SS517014), 600m to the north of the oak in Rutleigh Wood, suggesting that this tree may also provides suitable larval habitat. The only other fly species that emerged from the oak debris was a single *Trichopeza longicornis* (Meigen, 1822). This larvae of this common empid may not have previously have been recorded as being associated with decomposing woody debris.

Ancient pollard oak in Rutleigh Wood from which *Hercostomus nigrilamellatus* bred.

Dolichopodids of dry habitats

Martin Drake

We assume that dolichopodids are primarily wetland beasts but there are a few exceptions. We may even be overlooking them by ignoring dolichopodids found in dry places in the expectation that they are probably strays. Here is a selection of xerophiles - or at least species found in what passes for hot dry sites in cool damp Britain.

Dolichopus migrans A species of dry sandy grassland and sandy heath, found in only the Breckland of Suffolk and Norfolk where it is frequent, and two isolated sites, at Risby Warren, Lincolnshire, and Barmby Moor, Yorkshire where the colonies appear stable.

I previously mentioned the affinity of *D. virgultorum* for dry woodland and hedgerows (*E&D Newsletter* No. 22, p2). *Dolichopus agilis* has been found in a disparate mix of habitats but as well as wetlands there are plenty of records from dry examples of grasslands, heaths, woods and possibly coastal dunes. Perhaps it is just catholic or tolerant, like the common *D. festivus, griseipennis, trivialis* and *ungulatus* and which can be found commonly in hedgerows far from any wetland.

Hercostomus gracilis can be frequent on coastal dunes, shingles and dry cliffs and, to demonstrate that it is the dry,

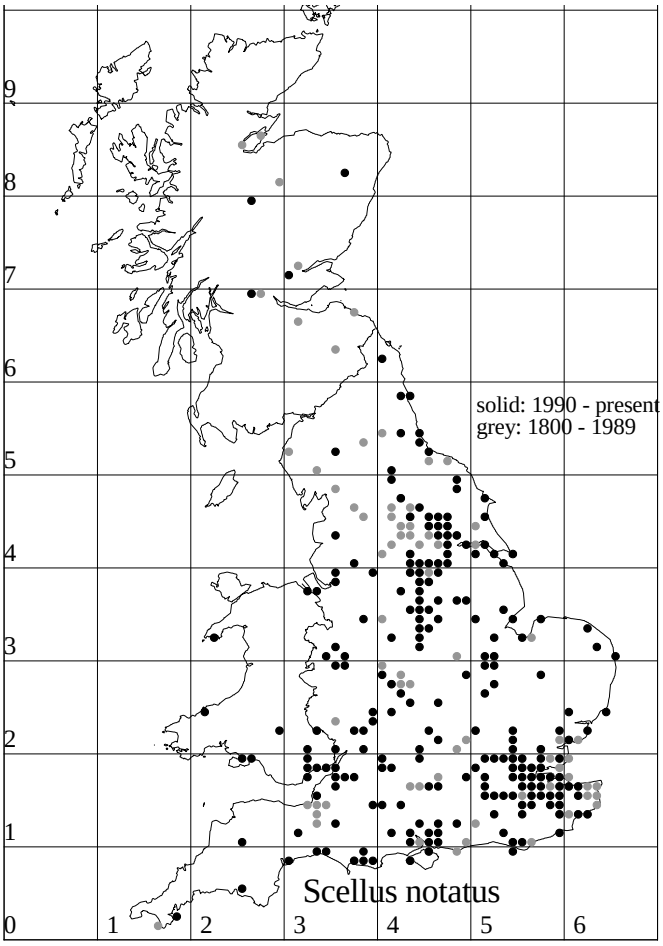
well-drained conditions that it likes, it is also widespread in the Suffolk Brecklands far from the coast. Adults may show a slight preference for low shrubby vegetation but I have not been able to demonstrate this conclusively. It can also be collected in damp areas by dunes but I think this is because the adults move about a lot rather than requires damp sites. *Hercostomus germanus* is a species predominantly of dry grasslands, mainly on chalk and limestone, but also marram, grey lichen and rank grassland of coastal dunes. It is not confined to such places and I suspect this is because it just needs grass sward on well-drained soils, so it is also sometimes found on uplands which may have free-draining rock under the grazed sward. *Hercostomus nigripennis* may just fall into the category species preferring dry places, as it can sometimes be the only dolichopodid in dry acid grasslands and heaths, although it will be picked up as often in acid mire and wet heaths. It is probably just very tolerant of a wide range of soil dampness. *Hercostomus rothi* is too scarce to allow a strong case for dry-preference but on mainland Europe and in Norfolk it has been found in arable land. The few British records may be due to us not looking for tiny dolichopodids in dull arable hedgerows.

Medetera as a whole are clearly at home in dry places since their larvae are mainly predators of wood-boring beetles. But some must feed on other organisms, since three species are restricted to open dry habitats without a tree in sight. *Medetera saxicola* will be found anywhere (at least in England) with bare sandy or gravelly ground in sparse vegetation. So its habitats include exposed riverine sediments, dry heaths, chalk grassland, cliff-tops and soft cliffs, dunes, and man-made bare areas usually maintained by rabbits in post-industrial brown-field sites and quarries. If it is found in a wetland, there is almost certainly dry bare soil around, such as the bare draw-down zones of saltmarsh ponds. It is only infrequently found on tree trunks, and then usually in open areas such as wood pasture. *Medetera petrophiloides* is the main dune *Medetera*, found not just on dunes but sometimes in similar dry coastal places, although nearly always with a sand component such as sandy cliffs rather than just coarse cobbles. I may be unduly pessimistic about recorders' ability to identify *Medetera* (me included) but I'm suspicious of inland records of this species. *Medetera micacea* is a species of short swards on dunes, heaths, chalk grassland and sandy coastal cliffs, often grazed by animals big and small, such as around rabbit scrapes. Some bare sandy or dry soil may be a requirement.

Chrysotus laesus has fairly clearly defined requirement for dry, often rank grassland. The presence of bracken appears often in the records, although it is found on both base-rich or acid soils. As a consequence, this fly is found in lots of grassland habitats but not often in damp or wetter sites. The common *C. gramineus* and *blepharosceles* are too widespread and catholic to count as xerophilic, although they can be numerous in dry grasslands.

Scellus notatus is an odd species, cropping up erratically in all sorts of places, but often in dry sites, and if on a wetlands, such as saltmarsh, there is often some dry land nearby, such as the sea wall. Scrub is another frequent component of its sites. So it is found in deciduous woodlands, old quarries, clay-pits, gravel-pits, brown-field sites, coastal marshes on clay (which probably dry out locally). I'm guessing that the frequent mention of ponds was just the magnet that drew the recorder to the site, rather than a requirement of *Scellus*. In short, mainly not very attractive places! Its distribution is margainlly more eastern than western (see map) and its scarcity around wet Devon where I live is real.

Dolichopodids found often in dry woods are most species of *Neurigona*, *Sybistroma*, *Xanthochlorus*, *Argyra ilonae* and *Chrysotimus flaviventris*. I won't go into these as they should form part of an article about woodland dolichopodids.



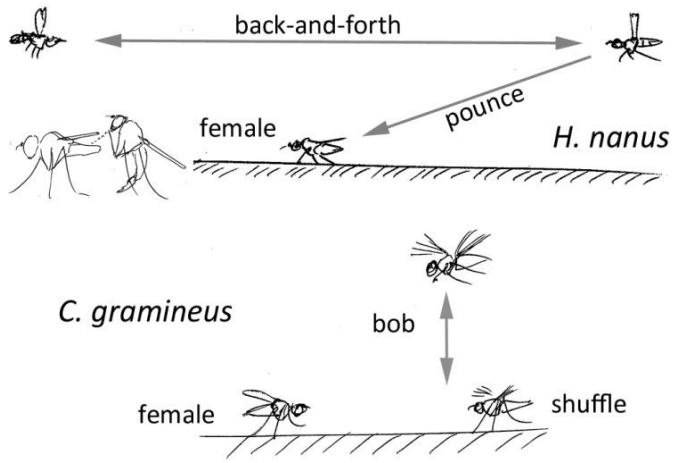
Courship of *Hercostomus nanus* and *Chyrsotus gramineus*

Martin Drake

31 May 2018, at 9am, was an overcast, still and humid time in my garden in East Devon. A small oak with its leaves conveniently at chest-height was being used as a feeding and courtship arena by *Hercostomus nanus*. About ten flies of both sexes were flitting about while mopping the partially wet leaves. Males would fly above a female, back-and-forth, in a horizontal flight path about 10-15cm long, and about 3-5cm above the female when he was directly above her; at either end of the flight-line, he reversed his orientation and lingered for a second or two before flying back again. About 5 such passes were followed by the male landing directly behind the female with genitalia brought forward, so he made a banana-shape (see sketch), walking on the mid and hind legs as the female moved. His front legs may have been touching or even holding the female, although this is guesswork based on the unvarying distance between them as they walked about. In some ten such approaches, none resulted in copulation but in the female flying off. There were few other flies on these

leaves to distract the males although one made an attempt at a small *Hilara*. One male 'attacked' another when he was in the behind-the-female position, by several up-and-down bounces, but with no success in dislodging the attending male. A few male and female *Anepsiomyia flaviventris* arrived after some time, along with a large female *Dolichopus* and female *Sciapus* but no other dolichopodids. During the next hour, only one more courtship display was seen, elsewhere in the garden, although I don't know whether this is when courstship is over or that my earlier observations were merely fortuitous. I pooted a male *nanus* and *flaviventris* to check my field identifications.

Chrysotus gramineus was common in the garden in late June. The 21st June was sunny at 8.30 in the morning, and *gramineus* was frequent on leaves of bind-weed, woundwort and other low foliage. It was the only fly apart from a few *Dolichopus* on these leaves. The males' dance consisted of landing in front of female (or other male) about 15-20mm away, doing about five side-to-side shuffles of a few mm, with some wing-raising, and an occasional 'bob' a few mm into the air. If the other fly was a female (not a male), the dance became increasingly frenetic, with the shuffle being replaced in increasingly vigorous bobs up to 15mm into the air, and apparently bouncing off the leaf at each bob, looking like he was vigorously vibrating up-and-down, and still about 15mm in front of her. This lasted perhaps 2-3 seconds and with 10-15 bobs although the dance was so fast it was impossible to estimate accurately – how do they do this? The dance ended with a dash to the female but I never saw a convincing coupling, and the female usually flew off. Males engaged in aerial dog-fights consisting of much rapid and short-lasting whirling about.



Dolichopodids use a range of courtship displays and there is work to do in classifying them. Some have been described, for example, leg-waving in *Dolichopus plumipes* (Stubbs, 1988) and leap-frog in *Poecilobothrus nobilitatus* (e.g. Land 1993, Lunau 1992). The display of *Hercostomus nanus* could be described as the 'fly-by', and that of *C. gramineus* as 'shuffle and bob'.

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Record Cards

Roy Crossley has a pile of record cards: RA 67 – Dolichopodidae & RA66 – Empids. If anyone find them useful, could they ask Roy for a supply.

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Recent literature

Pollet, M., De Braekeleer, A., Drake, C.M. and Van de Meutter, F. 2017. The rediscovery of *Orthoceratium lacustre* (Scopoli, 1763) (Diptera: Dolichopodidae) in Belgium, with data on its ecology and distribution in the Palaearctic region. *Biologia* **72**, 62-69. [includes distribution map and ecological data for Britain]

Grichanov, I. Ya. & Ahmadi, A. 2017. Palaearctic species of the genus *Lamprochromus* Mik, 1878 (Diptera: Dolichopodidae). *Far Eastern Entomologist* **336**, 1-12. [key to nine Palaearctic species; justification for name change of *L. strobli* to *semiflavus*]

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Acknowledgements

Thanks for the dolichopodid records or specimens sent by: Abby Rhodes, Andrew Cunningham, David Bryce, Howard Bentley, John Hunnisett, Liverpool Museum records sent by Tony Hunter, Martin Luff, Mike Pugh's record in BENHS collection sent by Peter Chandler, Mike Shurmer, Murdo Macdonald, Nigel Jones, Peter Vincent, Phil Brighton, Richard Dickson, Rob Wolton, Roy Crossely, Sorby Invertebrate Group extracted by Derek Whiteley, Stephen Hewitt, Winchester Museum records extracted by Christine Taylor.

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An update on *Drosophila suzukii* – Spotted Wing Drosophila almost ubiquitous in the south and still spreading north

Arrival and rapid spread in Southern England

Drosophila suzukii, known as the Spotted Wing Drosophila, is a recent arrival in the British Isles, which is now an established member of our fauna. Of Japanese origin, it is now widespread globally and is regarded as a serious pest of fruit farms, since it is able to develop in a wide range of soft fruits. It was first noticed in Britain at the East Malling Research Station in Kent in 2012 (Clemons 2013), and was formally added to the British list by Harris & Shaw (2014).

Darwyn has drawn attention (Sumner 2018) to the apparent lack of recording of *D. suzukii* as suggested by the existence of only four records on the NBN Atlas, while in contrast a plethora of records had appeared in *Dipterists Digest* in 2014. The notes then published showed that it was already widespread, at least in southern England. The distribution stated in the species accounts, that were supplied with the keys prepared for the 2017 Preston Montford Workshop, referred mainly to those 2014 notes:

ENGLAND: Dorset (SY68: Hallett 2014; SZ08: Spilling 2014), Hants (SU85), Berks (SU97), Middlesex (TQ16, TQ17) (Chandler 2014), Kent (TQ75, TQ76, TQ84, TQ86, TQ94, TQ95, TQ96, TR06: Clemons 2013, 2014; Harris & Shaw 2014), London (TQ38: Richardson 2014), Essex (TQ57, TQ67: Smith 2014), Suffolk (TM14: Cooper 2014), Norfolk (TG42: Irwin 2014), Northants (SP77: Showers 2014) [except for Clemons 2013, these references are all to be found in *Dipterists Digest*].

These early records from 20 hectads in nine counties across a wide area of southern England suggested that there had been an explosive spread since the first sighting, no earlier British records having come to light. Perhaps there were multiple contemporary introductions. It was understood that it was becoming a serious pest of fruit farms, though no precise records from those locations have been made public, but it quickly spread in the wild and into gardens because it can also develop in blackberries and elderberries. It may also be found around fallen apples, and it is also attracted to decaying fungi, including honey fungus *Armillaria* and sulphur polypore *Laetiporus*.

I have found *suzukii* to be abundant at sites I have visited regularly in recent years. It has also been numerous on Dipterists Forum autumn field meetings in 2015, 2016 and 2017; data from these meetings should eventually find their way to the NBN Atlas. Perhaps the mainly autumnal flight period has reduced the number of sightings by dipterists in general, although it has actually been recorded in every month of the year. That being the case, it is perhaps surprising that there have apparently been no records from summer field meetings, even from the July 2016 meeting in Kent.

A Pest of Fruit Farms

The pest status of this species has been the subject of ongoing research. A recent summary of monitoring and control on fruit farms is provided by Fountain & Cross (2017). This includes a comparison of the results of trapping at 16 fruit farms throughout each year over the period 2013-2016. Monitoring traps were deployed at the centre and edge of each crop, and in a wooded area on each farm, and showed increasing numbers during that 4 year period. The traps employed a solution that included ethanol (7.2%) and acetic acid (1.6%) as attractants, and boric acid to inhibit microbial growth. The farms were located as follows: five in Kent (including the East Malling Research Station), one in Surrey, three in the west Midlands (Herefordshire and Staffordshire), two in eastern England (Northamptonshire and Norfolk), one in Yorkshire and four in Scotland (including the James Hutton Institute: see below). The largest catches were in south-east England, with those in other regions low by comparison. At the Yorkshire site catches were low until late August.

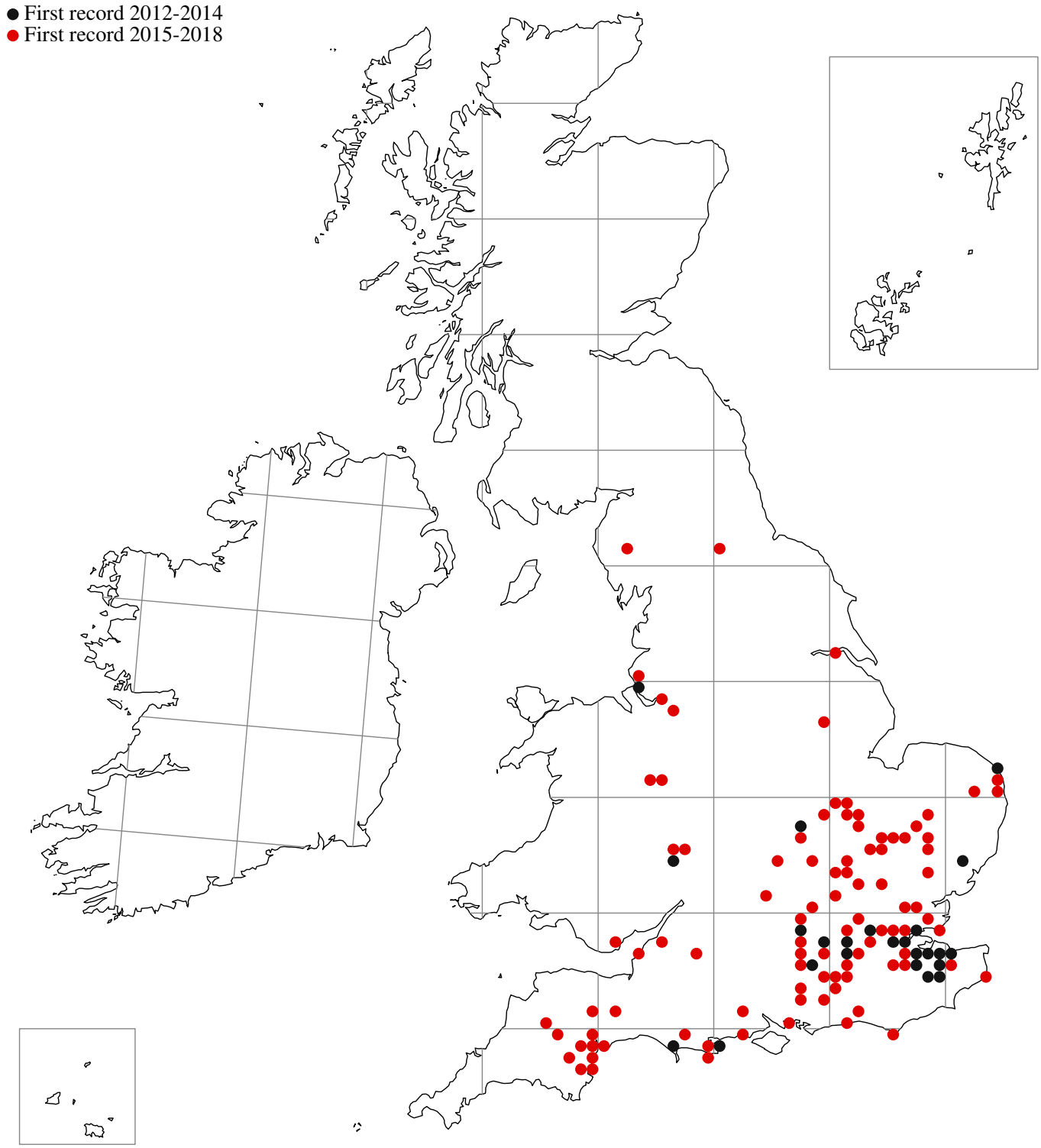
Occurrence in Scotland and Ireland

No Scottish field records have yet become available, although in 2014 Nathan Medd, who was then beginning a PhD at Edinburgh related to *D. suzukii*, suggested (*pers. comm.*) that it was already present in fruit farms in the east of Scotland. A report by Alison Dolan of the James Hutton Institute confirms that it was trapped at the four monitoring sites in Scotland in that year (Dolan 2014). Fountain & Cross (*op. cit.*) indicate that it continued to be trapped in Scotland in subsequent years, but not earlier in the year than April, and say that "It is unclear if *D. suzukii* has established in Scotland as numbers are very low and no winter morphs have been captured". Nathan Medd (*pers. comm.*, 6 April 2018) informed me that it had not yet been found in surveys in the Edinburgh area, and the dipterists resident in Scotland who I have consulted are not aware of any Scottish records. It has also not been observed on recent field trips in Scotland, including those in 2017. As it did turn up in Cumbria and North Yorkshire in that year, it would not be too surprising if Scottish field records soon ensue.

It has apparently been present in Ireland since July 2015. As with Scotland, no field records have come to my notice but Gaffney (2017) describes its spread in the eastern counties with maps showing that it was recorded only in Counties Dublin and Wexford in 2015, reaching Wicklow and Meath in 2016 and adding Louth and Kilkenny in 2017. It was by then occurring at 17 of 19 sites being monitored, with overall numbers increasing over that period.

What about the NBN?

Why more records have not reached the NBN is a different issue and concerns the means by which records get there. As Darwyn pointed out, there is no Drosophilidae recording scheme, and for families where that is the case, records most often come via local records centres, and so it is perhaps surprising that only one of the published records (from Suffolk) has come to it by that route. In early 2017, before the NBN changed to the Atlas, I downloaded all the 6,428 drosophilid records, of which only three were *D. suzukii*. On 11 March 2018, I checked how many drosophilid records the Atlas now held and found it was 5,599, including the four *D. suzukii* records mentioned by Darwyn. There was an initial reduction in records following the change to the Atlas due to some local centres being slow or reluctant to transfer records to it, though the small discrepancy of only 829 in these total figures suggests that it is catching up.



Distribution of available records of *Drosophila suzukii* in July 2018: the 24 black hectads are those with records by the end of 2014, and at least 11 of these also had records in subsequent years. Only hectads with field records cited in the Appendix are included, as locations of fruit farms where it has been recorded are confidential. As indicated in the text it has been known from fruit farms in eastern Scotland since 2014 and in the eastern counties of Ireland since 2015. Maps in Gaffney (2017) show that it was in six counties of the Irish Republic by 2017.

Of the four *suzukii* records on the NBN mentioned by Darwyn, two were duplicates (Haughmond Hill – Hollies, SJ51, Shropshire, 25 September 2016, Nigel Jones); a further one from there and two from Shrewsbury (SJ41, also Nigel Jones) in 2017 have since been added to bring the total to seven of 5,611 drosophilid records (July 2018). The other *suzukii* records are from Suffolk (TM14), no other details given but referring to Martin Cooper's 24 September 2014 record reported in *Dipterists Digest*, and from Wales (ST17) on 6 November 2015, by George M. Tordoff (no locality name, the only Welsh record so far known to me).

Darwyn recommended posting records on iRecord as a step towards the records reaching the NBN, once they are verified. Martin Harvey kindly drew my attention to records already awaiting verification on iRecord, which enabled these, apart from one wrong identification, to be verified – these added 14 localities which have, however, yet to reach the NBN, presumably awaiting a mechanism to be put in place for that to happen.

The Quekett Spotted Wing Drosophila Survey

The Quekett Microscopical Society initiated a project to record *D. suzukii*, which was implemented by their members in a trapping programme carried out from October to November 2016 (Thomas 2017). This was using apple cider vinegar as an attractant and other insects caught were mainly other species of *Drosophila*. Participation by 32 of their members resulted in reports of *D. suzukii* by 23 of them, all located south of Birmingham. Total numbers of insects and numbers of males and females of *D. suzukii* were recorded. Microscopical examination was considered reliable for identification of females as well as males. Overall the catches were 40 % *D. suzukii* with a greater proportion (47%) in the eastern counties and less in the Midlands (32%) and South-east (22%). Chris Thomas has kindly provided the data on which these conclusions were based; they comprise records from 17 hectads of which all but two are additional to those from which records have been provided from other sources, also usefully helping to fill a gap in the Midlands.

Summary and conclusions

In preparing this update many dipterists have been contacted and have contributed many new records. The map shown here includes all hectads from which records are known to me, including those provided by the Quekett Microscopical Society. The available data are summarised chronologically in the Appendix.

I have continued to find *D. suzukii* numerous at Fleet Pond, Hampshire and Windsor Forest and Great Park, Berkshire in all subsequent years since it first appeared at these sites in 2014, as has Ivan Perry at the Warburg Reserve, Oxfordshire, so it seems to stay in an area once it has arrived. The records show that it is becoming ubiquitous in southern England. The North Yorkshire and Cumbria records show that it is advancing northwards.

If or when records will reach the NBN Atlas is dependent on data collation for site surveys and field meetings, and what happens to the resultant reports when they have been compiled. Entering individual records on any database is a time consuming and laborious process.

The monitoring on fruit farms will apparently continue, but as their locations are confidential we will probably not learn any more precise details. The only certainty is that it is here to stay, but it is easily recognised (at least the spotted-winged male), so all dipterists can contribute to tracking its further spread north and westwards. The Quekett Society is continuing its survey and request that recorders add their data on location and numbers observed to their website at https://www.inaturalist.org/projects/quekett-spotted-wing-drosophila-survey-experiment

Acknowledgements

I am grateful to all recorders for bringing records to my attention and to Martin Harvey for alerting me to records posted on iRecord, which enabled these records to be verified. I thank Nathan Medd for useful discussion, Chris Thomas for making available the Quekett data and Ken Merrifield for initially informing me of their project. Laurence Clemons, Martin Drake and Del Smith collated the records for Kent, Devon and Essex respectively. I am grateful to Stephanie Rorke of BRC for the map and for quickly providing updates of this as required.

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Peter Chandler

Appendix

Records I am aware of are summarised below in chronological order, with all recorders acknowledged and hectads indicated.

2014. In addition to the above-mentioned published notes – Ivan Perry found it at the Warburg Reserve (SU78), Oxfordshire; it was trapped at Swinmore Orchards (SO64), Herefordshire by Keith Alexander; James McGill found it at Wat Tyler Country Park (TQ78), Essex on 6 December. John Badmin (2017) mentioned a record from Liverpool (SJ39) in this year, communicated to him by Jon Delf.

2015. It was recorded at Reading University Campus (SU77), Berkshire on 8 January (Erin Cook) and on 23 February (Chris Kelly). It was recorded by P.J. Collins at Upminster (TQ58), Essex on 11 March, and by Peter Harvey at Foulness (TQ98), Essex in September and Ickworth Park (TL86), Suffolk in October. Ivan Perry found it in September at Flitwick Moor (TL03), Bedfordshire and by sweeping ivy at both Aspal Close NR (TL77), Suffolk and Great Eversden (TL35), Cambridgeshire, then around decaying fungi on 19 October at Lode (TL56), Cambridgeshire. It was found at five sites on the Dorset field meeting from 10 to 13 October (SY79, SY97, SY98, SZ08), but not on the subsequent New Forest meeting from 14 to 17 October, probably due to a lack of brambles. Mark Mitchell found it in Surrey, at Milton Wood (SU94) on 18 October and at Chilworth (TQ04) on 27 October. In Devon, Keith Alexander trapped it at Clayhidon Turbary (ST11) and Andrew Cunningham found it at Rewe (SX99) on 4 March and at Primley Park (SX86) on 25 October. Laurence Clemons reported it from three sites at Dover (TR34), Kent in September and October. John Badmin found it in numbers by beating holly and yew at Perry Wood (TR05), Kent on 13 December and continued to find it in this area through to 24 January 2016 (Badmin 2017).

2016. It was numerous at six sites on the autumn field meeting held from 9 to 12 October in Northamptonshire (SP98, TL09) and Huntingdonshire (TL16, TL18, TL28). Keith Alexander trapped it at four sites: Ashenbank Wood (TQ66), Kent; Tyntesfield and Leigh Woods (both ST57), Somerset; Countess Wear (SX98), River Exe, Devon. Other site records are: 30 January at Lincoln (SK96) (Mick Talbot); 7 February at St Mary's Church, Wanstead (TQ48) (Rosemary Stephens); 24 February near Christchurch Park (TM14), Suffolk (Martin Cooper); 9 August at West Thurrock (TQ57), 20 August (on compost heap) and 9 September (when it was numerous on ripening figs) at Gray's (TQ67), Essex (Peter Harvey); 10 August and 8 September at Oare (TR06), Kent (Laurence Clemons); 14-17 August at Boreham (TL70), Essex (at a light trap by Graham Ekins); 13 September at Lode (TL56), Cambridgeshire (around a compost heap in Ivan Perry's garden); 24 September at Peterborough (TL19) (Alan Stubbs' garden) and at The Warren (SU72), Hampshire (Mark Mitchell); 26 September at Melksham (ST86), Wiltshire (my garden, flying around blackberries, still the only Wiltshire record); 28 September and 3 October, at Hatherleigh (SS50), Devon (Rob Wolton's farm); 30 September at Langdon Hills (TQ68), Essex (James McGill); 1 October at Hopyard's Wood (SJ67), Cheshire (Phil Brighton); 26 October at Roundwyck Copse (SU92), Sussex (on my visit to this wood owned by Stephen Miles); 29 October at Twinsteadhall Wood (TL83), Essex (Peter Harvey); 8 December at Worlebury (ST36), Weston-super-Mare (Paul Bowyer). John Badmin again found it at Perry Wood in December and in a Rothamsted trap in his garden at Selling (TR05), Kent. The Quekett Microscopical Society survey (see above) was also carried out in this year; the hectads involved were SP54, SP76, SP84, TG40, TG41, TL13, TL14, TL22, TL46, TL60, TL85, TQ10, TQ16, TQ26, TQ65, TQ89 and TV59, of which only TQ16 and TQ26 were in common with other records available.

2017. Barry Warrington recorded it at Hessle (TA02), East Yorkshire on 13 January. Ivan Perry found it in Cambridgeshire at Chippenham Fen NNR (TL66) on 27 March, in compost bays at Anglesey Abbey (TL56) on 2 August, and by sweeping ivy at Wandlebury (TL45) on 7 September. Martin Cooper found it again near Christchurch Park, Suffolk on 7 April. Colin Plant reported in April that he had found it in his garden Malaise trap at Bishop's Stortford (TL42), Hertfordshire. Laurence Clemons recorded it from three sites in Kent (TQ55, TQ75, TQ95) in April, July and August. David Gibbs found it at Poyning's (TQ21), Sussex on 9 May. David Notton found it at Lewisham (TQ37) on 3 August. I found it at High Park, Blenheim (SP41), Oxfordshire on 12 October. On 15 October Paul Bowyer found it at an actinic light at Weston-super-Mare (ST36), Somerset and Martin Harvey recorded it at Bringsty Common (SO75), Herefordshire. It was recorded at 18 of the 21 sites in Surrey and Hampshire visited on the autumn field meeting from 14 to 17 October (SU73, SU75, SU76, SU85, SU94, TQ03, TQ04, TQ14 and TQ15). Keith Alexander trapped it at a site in Herefordshire (SO65) and at Thorneythwaite Fell (NY21), Cumbria. Roger Morris found it numerous at Mitcham Common (TQ26), Surrey, recording it on 12 dates from 28 August to 18 November. He also found it at Egglestone Abbey (NZ01), on the Yorkshire bank of the Tees, on 7 September. Tim Hodge found it in a garden at Horsey Corner (TG42), Norfolk in August and November. Howard Bentley found it at Vinters Valley (TQ75), Kent on 1 September. Graham Ekins again caught it at his light trap at Boreham, Essex in September. Dawn Painter caught it in a Malaise trap on her allotment at Finchley (TQ29), London in 9-22 October samples. Nigel Jones found it in numbers in his garden at Shrewsbury (SJ41) from 10-25 October. Alan Bedford found it at Lunt Meadows Nature Reserve (SD30), Merseyside on 16 October. Alan Stubbs found it at Woodwalton Fen NNR (TL28) on 25 October. Ken Merrifield found it in his garden at Eastcote (TQ18), Middlesex in November. Andy Musgrove recorded it at The Nunnery (TL88), Norfolk on 6 November and Sam Thomas reported it from Beacon Hill (SU79), Oxfordshire on 29 November. Ian McLean identified some swept by his wife Christine from ivy in their garden at Brampton (TL27), Huntingdonshire on 1 November. Also on 1 November I found it at the Blacknest gate end of Virginia Water (SU96), Berkshire; my Windsor records were all previously from the northern hectad SU97. Tony Irwin recorded it several times in his house and garden in Norwich (TG20). It was found again at Leigh Woods (ST57), Somerset in samples trapped at a sap run on ash from July to October by Bob Fleetwood. Members of the Devon Fly Group recorded it at 8 sites in the county (SS50, SS91, SX69, SX77, SX88, SX96, SX97, SY08). Victoria Burton found it in her garden at Portsmouth (SU60).

2018. On 1 January Tim Hodge recorded it again from a garden at Horsey Corner, Norfolk, and Martin Harvey found it at Great Kimble (SP80), Buckinghamshire. Phil Brighton found it in Cheshire (SJ58) on 6 January. Chris Shortall recorded it at Slip End (TL01), Bedfordshire on 15 January. Roger Morris caught it at Mitcham Common on 11 March. I found it again at Virginia Water on 15 May. The spring field meeting held in the New Forest from 18-20 May produced records of single specimens from two sites in different hectads: I found it at Plaitford Common (SU21) on 18 May and Rob Wolton caught it at Stony Moor (SZ29) on 19 May. This was interesting in view of the absence of records from the autumn field meeting of 2016 in the New Forest, when many of the same localities had been visited. However, it was not found at any of those sites, only at two localities not visited on the previous meeting.

Events Calendar Summer 2018

4 September 2018 Identifying Flies with Patterned Wings (WM region). Tutor Nigel Jones. An FSC Biolinks Course. Location Preston Montford Field Studies Centre. See http://www.field-studies-council.org/individuals-and-families/fsc-biolinks-courses.aspx

6 October 2018 AES Annual Exhibition and Trade Fair, Kempton Park, London Sunbury-on-Thames, TW16 5AQ, UK. DF will have a publicity stand and some nice flies on show plus publications for sale. See www.amentsoc.org

13 October 2018, Sepsid Fly Identification, Tutor Steve Crellin for World Museum Liverpool. For details see http://www.northwestinvertebrates.org.uk/events/category/workshops/

3 November 2018 BENHS Annual Exhibition and Dinner, Conway Hall, 25 Red Lion Square, Holborn, London WC1R 4RL. See http://www.benhs.org.uk . Bring your best fly exhibits for the Diptera table.

3 November 2018, Cranefly Identification with Microscopes, Tutor Pete Boardman for World Museum Liverpool. For details see **http://www.northwestinvertebrates.org.uk/events/category/workshops/**

10 & 11 November 2018 DF AGM, Dipterists Day and Indoor Meeting. Oxford University Museum of Natural History. Parks Road, Oxford OX1 3PB. **See http://www.oum.ox.ac.uk**

25–30 November 2018. **9th International Congress of Dipterology** is scheduled to take place in Windhoek Namibia (note change of venue). See website : (http://icd9.co.za/)

1 December 2018 Discovering Diptera: Flies under the Microscope, Tutor Martin Harvey - Epping Forest. Field Studies Council.

2019

15 - 17 February 2019, DF Advanced Identification Workshop. Families: **Empidids and Hybotids.** Tutored by Nigel Jones and Stephen Hewitt. Preston Montford Field Studies Centre, Shrewsbury. Details & booking on FSC website: http://www.field-studies-council.org/prestonmontford from mid October.

31 March 2019. Workshop on writing keys, led by Martin Ebejer, at Dinton Pastures. Details to follow. Expressions of interest to Tony Irwin (dr.tony.irwin@gmail.com).

***Throughout the Year*:**

BENHS Dinton Pastures Open Days in the Pelham-Clinton Building, Hurst, Reading. Open 10:30-16:00 on second and fourth Sunday in each month except April to September when only on the second Sunday of each month (except for August when there are no Open Days). We encourage you to bring along your pinned flies and use the Diptera Collections and library for identification. Other Dipterists are usually present meaning good chat and assistance with identifications may be possible. The grid reference for Dinton Pastures is SU 784718, turn left off the B3030 driving North from

Winnersh. The site is about 15 minutes walk from Winnersh station, which has trains running on a half-hourly service from Reading and Waterloo. See: www.benhs.org.uk

The Northants and Peterborough Diptera Group hold meetings every weekend from end of April until sometime in September/October. See: northantsdiptera.blogspot.co.uk or contact John Showers on email: showersjohn@gmail.com

The Devon Fly Group will be holding regular field meetings throughout the year. Contact Martin Drake (01460 2206650, email: martindrake2@gmail.com).

County Recorders

Dipterists Forum

Map themed by standard UK regions subdivided into Local Environmental Records Centre counties (see boxes)

Scotland
- Dumfries & Galloway
- Fife Nature Records
- Lothian Wildlife Information
- Glasgow
- Highlands & Islands
- North East Scotland
- unassigned
- Outer Hebrides
- Shetlands
- Orkney

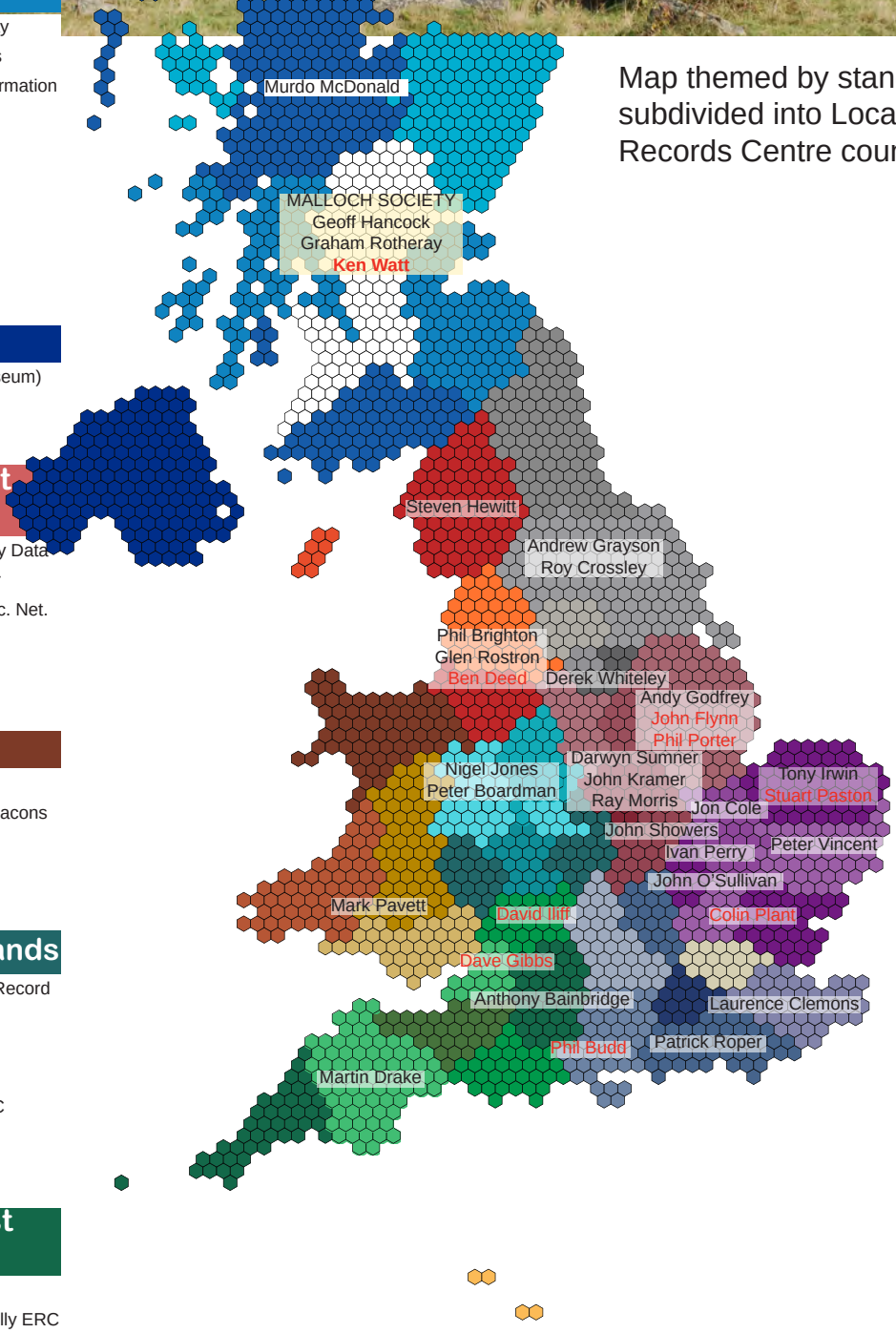
Ireland
- CEDAR (Ulster Museum)

North West England
- Cumbria Biodiversity Data
- Greater Manchester
- Lancashire Env. Rec. Net.
- Merseyside
- rECOrd
- Isle of Man

Wales
- North Wales
- Powys & Brecon Beacons
- South-East Wales
- West Wales BIC

West Midlands
- Staffordshire Ecol. Record
- EcoRecord
- Herefordshire BRC
- Warwickshire BRC
- Worcestershire BRC
- Shropshire

South West England
- Bristol ERC
- Cornwall & Isles Scilly ERC
- Devon BRC
- Dorset ERC
- Gloucestershire Centre ER
- Somerset ERC
- Wiltshire & Swindon BRC



North East England
- North & East Yorkshire
- West Yorkshire
- North East
- Rotherham, Doncaster
- Sheffield
- Barnsley

East Midlands
- Leicestershire & Rutland
- Lincolnshire
- Northamptonshire
- Nottinghamshire
- Derbyshire

East of England
- Norfolk BIS
- Bedfordshire & Luton
- Cambridgeshire, Peterboro
- Herefordshire ERC
- Essex (closed)
- Suffolk

Gtr. London
- Greenspace Info. for G.L.

South East England
- Hampshire BIC
- Thames Valley
- Kent & Medway BRC
- Surrey BIC
- Sussex BRC
- Buckinghamshire & Milton
- Isle of Wight

The Dipterists indicated have good local knowledge and work closely with their LERC. Red text = hoverflies only.

ALERC
Association of Local Environmental Records Centres

www.alerc.org.uk

A joint ALERC & Dipterists Forum project by Darwyn Sumner

Dipterists Forum Recording Schemes and Study Groups

Craneflies
Cranefly Recording Scheme
Tipuloidea & Ptychopteridae

Pete Boardman
pete.ento22@gmail.com
Newsletter: John Kramer
john.kramer@btinternet.com

Chironomids

Patrick Roper
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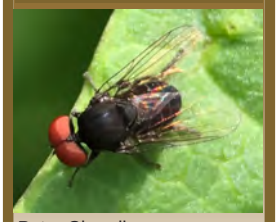
Dixidae & Thaumaleidae

Julian Small
julian.small@naturalengland.org.uk

Fungus gnats
Mycetophilidae & allies

Peter Chandler
chandgnats@aol.com

Flat-footed flies
Platypezidae



Peter Chandler
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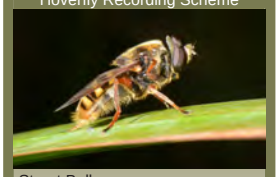
Hoverflies
Hoverfly Recording Scheme



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Roger Morris
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Newsletter editor: David Iliff
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Soldierflies
Soldierflies & allies & Recording Scheme

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Recording Scheme

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Steven Hewitt
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Culicidae
Mosquitoes Recording Scheme

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Pipunculidae
Study Group

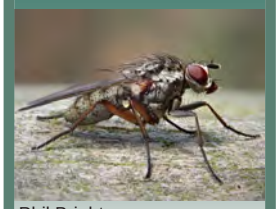
David Gibbs
DavidGibbs@Sky.com

Chloropids
Chloropidae Study Group

John & Barbara Ismay
schultmay@insectsrus.com

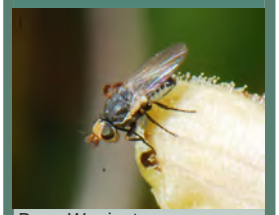
Dipterists Forum

Anthomyiids
Anthomyiidae Recording Scheme



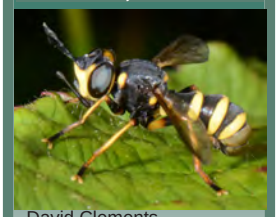
Phil Brighton
helophilus@hotmail.co.uk

Agromyzidae
Leaf-miner Recording Scheme



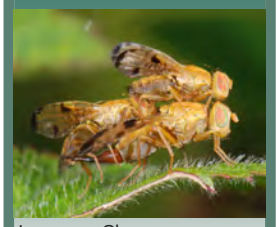
Barry Warrington
agromyzidaeRS@gmail.com

Conopids
with Lonchopteridae, Ulidiidae, Pallopteridae & Platystomatidae



David Clements
dave.clements1@ntlworld.com

Tephritids
Tephritid flies Recording Scheme



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Sciomyzids
Snail-killing flies Recording Scheme

Ian McLean
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Darwyn Sumner
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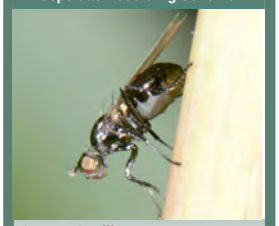
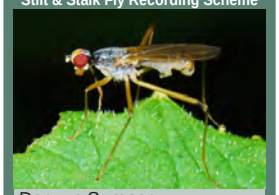
Sepsids
Sepsidae Recording Scheme



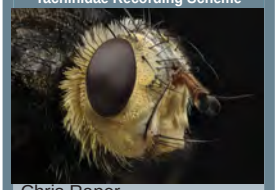
Steve Crellin
steve_crellin1@hotmail.co.uk

Micropezids Tanypezids
Stilt & Stalk Fly Recording Scheme



Darwyn Sumner
Darwyn.sumner@ntlworld.com

Tachinids
Tachinidae Recording Scheme



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Matthew Smith
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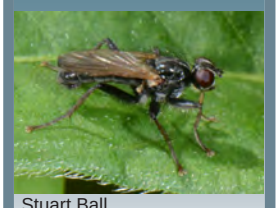
Iconography

- Recorder 6 or earlier versions
- MapMate
- MS Excel
- iRecord
- MS Access
- GIS tools used by organisers to create maps and atlases (e.g. QGIS, DMap)
- Website available, faded icons = temporary sites
- NBN Atlas: Datasets are uploaded to publicly accessible site

Scathophagids
Scathophagid Recording Scheme



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Oestrids
Oestridae Recording Scheme

Andrew Grayson
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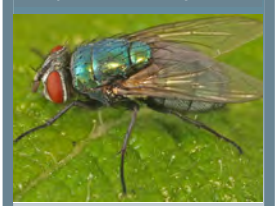
Calliphorids
Calliphoridae Recording Scheme



Olga Retka
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Other recording initiatives

Recording initiatives ongoing or under consideration:

Dipterists Forum Field Weeks. Currently available on NBN Atlas

Non-recording scheme species/groups, non-native species, regional diptera groups

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www.dipteristsforum.org

Photographs by John Bridges, Ian Andrews, Steve Falk, Darwyn Sumner, Alan Outen, Harry R, Chris Spilling