

BULLETIN OF THE
Dipterists
Forum

Bulletin No. 96

Autumn 2023



Founder Alan Stubbs awarded MBE



Affiliated to the British Entomological and Natural History Society



Bulletin No. 96

Autumn 2023

ISSN 1358-5029

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Please see the Membership section for full details

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Please use the Booking Form downloadable from our website

Field Meetings

Now organised by several different contributors, contact the Secretary.

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Illustrations: Front cover painting *Ctenophora ornata*, **Dawn Painter**, above *Dilochoopus wahlbergi*, **Ian Andrews**

Images selected from our Dipterists Forum Flickr group. 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. Front cover must be upright (portrait) and have an aspect ratio of 6:7 (or be croppable to that ratio)



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Micropezid & Tanypezid Newsletter #5 . (6pp)
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Cranefly Newsletter #41 (8pp)
Empid & Dolichopodid Newsletter #28 . (8pp)
Lesser Dung Fly Newsletter #5 (2pp)
Anthomyiidae Newsletter #14 (3pp)

Digital versions

Some of the above newsletters contain hyperlinks so you'll need to download the digital versions. Details of where to find those are on our website or detailed in this Bulletin.

Recording Schemes Brochure <https://www.micropezids.myspecies.info/node/301>

The back pages brochure may be obtained as an [interactive](#) pdf which links all the schemes to their various activities, projects and websites. Download it and click on the icons.

iNaturalistUK projects to many Diptera Recording Schemes <https://tinyurl.com/yr28des>

Copies of this Bulletin are mailed to Dipterists Forum members. A PDF version is available on our website (members only.) Back issues may be obtained from our website.

Online membership is now available on our website www.dipterists.org.uk/, alternatively a membership form may be downloaded from there.

Alan Stubbs MBE !!!

Alan Stubbs was the first editor of this Bulletin back in 1976. Back then it was called the Diptera Recording Schemes Bulletin and Alan edited the first 32 issues until Martin Drake took over in 1992 for the next 14 issues. I can well recall a huddled conversation at Dorchester on our field week there in 1998 between the two of them, resulting in Alan asking me to become the next Bulletin editor. With this one I've now completed 50 of them.

As original coordinator for the initial groups that gathered together under the guise of the Crane-fly Recording Scheme we can pinpoint Alan as founder at a time when there were 80 or so dipterists regularly travelling to meet up at Dipterists Suppers in London to chat about flies.



A man out standing in a field

Alan's contributions to dipterology since then are numerous, you'll have to read all those older Bulletins, we couldn't possibly summarise it all but 3 books is a marvellous haul. The following two links are to contemporary stories in the media:

Buglife: <https://www.buglife.org.uk/news/an-mbe-for-bugs/>

BBC: <https://tinyurl.com/2jvzb7hf>

I asked around for plaudits from various dipterists, the greater response though was to my asking for photographs (several from Roger Morris, also Andrew Cunningham, Rob Wolton and others) so after the few anonymous comments below, expect to see him pop up in various corners throughout this issue.

Alan is a towering figure in entomology and invertebrate conservation, and unfailingly helpful to amateurs. A real pioneer, he has dedicated his life to these causes and his legacy is fundamental and lasting change to the way insects and other invertebrates, vital to our nation's ecology, ecosystem services and environment, are appreciated and conserved at a UK level and beyond.

As altruistic and generous as always

I owe Alan so much but I can't put it into words. He supports my conservation work every time I ask for help. This MBE was deserved many years ago.

John Kramer also wrote an appreciation in the Crane-fly Newsletter. Thanks to Dawn Painter for permission to use the image of her painting, the original was awarded to Alan. Reminiscent of the animatronic "memory fly" that Beelzebub gave to the Archangel Gabriel in Terry Pratchett's *Good Omens 2*.

Feedback

The pool of talented contributors that newspapers and science publications such as New Scientist are able to draw upon is quite considerable. A little closer to our particular interests and British Wildlife features some good writings as occasionally may others such as Nature. Narrow the field even closer to our interests and the pool is somewhat smaller, we've diptera themselves of course with a host of writers and investigators whose work appears in Dipterists Digest and several other places. Allied to that is conservation which we feature regularly as it concerns the places where they live, fortunately we've many members and friends in that field; look through previous Bulletins for reports from Rob Wolton, Mark Welch and Judy Webb and others. There's even a fair amount of that subject in the more popular press. Get down to the subject of biodiversity informatics (a nice catch-all term that covers "recording" amongst others) however and there's little in the popular press, I can't recall a mention of NBN in British Wildlife for example, nor even a background article about BRC (<https://tinyurl.com/yne8n2sx>) when they celebrated their 50 years. The organisations pursuing this topic are many and varied, from BRC & NFBR through various agencies such as Natural England and regional Local Records Centre teams, you can add many other groups to that mix too, universities, Buglife, Natural History societies, museums and, of course all of Dipterists Forum's recording schemes and their supporters.

The importance of reliable reporting is paramount in today's hostile environment where even our precious Recording Schemes are under constant attack despite the marvellous work that they do. Dipterists Forum was formed upon the premise of support for all such endeavours as our objectives opposite clearly state. The aims of this Bulletin include journalism, investigative reporting and research all rolled into one - like Tintin, whose objective had much in common with ours.

If you've a story you want to investigate and tell, don't be afraid to ask, don't be put off by opposition and non-responses and do contact us. Can't guarantee Red Rackham's treasure but it will be an adventure.

Stop press

Stories come to us at different times of course, more recent ones affecting pieces written earlier. Chats with various folk, long after our July deadline resulted in a number of important amendments, one notable late change in this issue being the Scratchpad freezing delay (opposite.) An enquiry to NBN's Sophie Ratcliffe also revealed that the basic NBN Atlas upgrade will be done by around 18th September, following which there will be rollout of a number of improved features, the maps look very promising.



Bridgnorth 2009

All we have is carving knives & pitchforks
(Dad's Army)

Natural History Museum smashes Scratchpads



The closure was announced in April this year of a significant service that many had come to rely upon (<https://tinyurl.com/2eydhz6b>). Their Scratchpad system is a kind of website template designed specifically to support taxonomic work by anyone who cared to have a crack at it. It arose in 2006 and involved partners such as EoL, EDIT and GBIF and subsequently managed by NHM. We listed all those of interest to dipterists in Bulletin 88 and subsequently added one more, Barry Warrington's Agromyzidae.

To our dismay we were told by Vince Smith, NHM's Head of Digital, Data & Informatics that from September* we'd no longer be able to edit our sites, they'd become "read-only". Not too bad for sites developed by our Tachinid & Scathophagid Recording Schemes who strategically developed them to a point where they became a valuable resource of information but a severe blow for those that are actively maintained.

It seems it is possible for these sites to be transferred to a different "host", we thus began to make appeals to organisations who might be able to help host our sites. An email to DF Committee and of course first to jump in with possible solutions was BRC.

Within a few days the international community began to get involved in hunting for solutions and a message I posted on the GBIF Forum (<https://discourse.gbif.org/t/scratchpads-scratched/3932>) also got responses from across the world (as far away as Tasmania). Soon Rob Davies, NHM's Scratchpad "curator" who gave us a talk at our AGM last year joined the group and we formed a coalition and held online meetings to help us achieve better outcomes.

Fortunately Rob had become very enthusiastic about the Scratchpad concept and though he's moved to a different job in Southampton following the NHM's winding down of the project, he's been extraordinarily helpful and generous with his skills (mostly in his own time) There may be some prospect of Scratchpads rising phoenix-like from the ashes of the dodgy Drupal 7 (which caused all the problems in the first place) to the new Drupal 10 platform. We'll still have lost the free hosting we benefitted from at NHM and will have to dig deep into our own pockets (~£3k per site.) If anyone knows of a source of financial support for this operation that's just been ditched then do let us know. This may take some time and puzzling out for us naturalists; maybe UK's ARIA project could find a place for taxonomy. In the meantime we're working alongside our friends abroad and tidying up our sites ready for the big freeze.

The use of data is now a central part of modern life, so we need to make sure that the infrastructure underpinning it is safe and secure.

[Oliver Dowden, UK Government National Data Strategy, 2020
<https://tinyurl.com/mr3v753c>]

Ironically this occurred at exactly the same time that the Royal Entomological Society passed on a UK Government request asking us to tell them what we knew about insect decline and "the gaps in scientific understanding that require further research" We managed to include mention of the above infrastructure loss in our RES response.

Taxonomy is the backbone of biodiversity research

[Graham Lawton, New Scientist]

*Barry Warrington informed me on 31st August that he has been contacted by NHM's Vince Smith to tell him that this will now be postponed until next June

** Figure rose to 104,727 on 28th September

Web matters

New homepage feature

Martin Harvey has now redesigned our Dipterists Forum home page at <https://dipterists.org.uk/home> to feature the panel below:

Bulletin of the Dipterists Forum: current issue

The latest Dipterists Forum Bulletins are available to members. Our Spring 2023 issue contains updates on conservation, recording, fly life-histories, meeting reports, book reviews, regional news and more.

There are also recording scheme newsletters for these groups:

- Hoverflies
- Craneflies
- Small Acalypterates
- Soldierflies and Allies
- Lesser Dung Flies

Bulletin back issues are available to all. To ensure you receive the next one, join DF now!



It's now got a notice of the latest Bulletin and a link to download it. Much easier for members to access, especially now that we've introduced a "pdf-only" membership (don't forget to register). There's also a list of Recording Scheme newsletters that were included in that issue and a link to our archive of all previous Bulletins.



A rapid unscheduled disassembly

(Elon Musk re SpaceX blowing up)

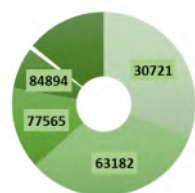
You couldn't make it up, a character best enjoyed in the pages of Viz or through the writings of John Naughton (*Observer*), Annalee Newitz (*New Scientist*) and others. Odd choice of letter for a rebrand, given the option I'd have taken the P.

Many thanks to Zoe and friends for having a try at the alternative (Mastodon) suggested in the last Bulletin for our home page. Not a successful alternative I'm afraid. Contact Zoe if you have enquiries or want her report..

Concerns have been expressed to us regarding the safety of the use of corporate media, some members having deleted all such applications. New Scientist also featured an article outlining privacy concerns, *Nowhere to hide* by Amanda Ruggeri (26th August), read it at <https://tinyurl.com/mr3tku8d> but don't forget to switch your default search page to DuckDuckGo first, the others track you too.

Open Data - update figures

Dipterists Forum's Open Data are publicly accessible species occurrence records to be found on NBN Atlas. Our data partner page is on their site at <https://registry.nbnatlas.org/public/show/dp172>



#91 #92 #93 #94 #95 #96

Activity there stopped abruptly in May 2023 due to NBN Atlas maintenance, causing us to narrowly miss the 100k target. It now stands at 99,701** but should increase rapidly in the Autumn.

The green doughnut diagram shows Dipterists Forum Open Data records increase on the DF NBN Atlas since 2020 in 6 month intervals. That last increase was 14,052 records.

Bulletin 91 (p11) detailed all the Recording Schemes whose datasets dwell outside the Dipterists Forum partner page and so have to be monitored separately.

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.

Science Fictions 3*

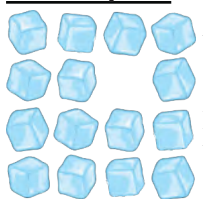
Countries and regions are thirsty for summarized data and insights for policy-making but we are running short of tools for managing the data (Martinez, 2023)

During the course of all the discussions surrounding the Scratchpad freeze our attention was directed not only to an online list of failed biodiversity informatics projects (<https://tinyurl.com/ybuhez4>) but also to others which serve us badly. Maybe that list is intended to draw the attention of potential funders to how bad a job they are doing, maybe it's just schadenfreude, they are certainly warnings.

At the time of reading Stuart Ritchie's book *Science Fictions: Exposing Fraud, Bias, Negligence and Hype in Science* it was clear he'd focussed on the better funded areas of science and that we could have added many examples from our own impoverished sector. (* see Science Fictions 2 in Bulletin 92)

We've quite a list of topics now, perhaps Ritchie could add them as an appendix to his negligence chapters:

Scratchpads



A full description of the Scratchpad concept is still available online:

<https://tinyurl.com/2nmf4k7t>

Fine aims and objectives now abandoned by the entire world bioinformatics community.

... discontinued and all the sites frozen

There are thousands of them across the world, all soon to be frozen by not allowing their authors to further edit them. They remain extremely valuable sources of taxonomic, biogeographic, bibliographic and other information.

Diptera

- Micropezids & Tanypezids (Europe) <https://micropezids.myspecies.info/>
- Agromyzidae of Great Britain & Ireland <https://agromyzidae.myspecies.info/>
- Lonchaeidae (World) <https://lonchaeidae.myspecies.info/>
- British Scathophagidae <https://scathophagidae.myspecies.info/>
- Tachinidae <https://tachinidae.myspecies.info/>
- Sarcophagidae <https://sarcophagidae.myspecies.info/>
- Milichidae <http://milichidae.info/>
- Mosquito Taxonomic Inventory <http://mosquito-taxonomic-inventory.info/>
- Fungus Gnats <http://sciaroidea.info/>
- The Diptera site <https://diptera.myspecies.info/>

Starts were made on some other diptera groups (Sciomyzidae, Drosophilidae) but not completed, the full list is in Bulletin 88 (<https://tinyurl.com/55n93n6n>)

Others

Valuable non-diptera sites to give you an idea of what we've lost:

- John Sullivan (Fish, Africa) <https://mormyrids.myspecies.info>
- Dean Hendrickson (Fish, Mexico) <https://truchasmexicanas.myspecies.info/>
- Stuart Longhorn & Carlos Viquez (Spiders, Central America) <https://arachnids.myspecies.info>
- Albert Gonzalez (Flora, Gibraltar) <https://floraofgibraltar.myspecies.info/>
- Chris Lyal (World Weevils) <https://weevil.myspecies.info/>
- Cory Sheffield (World Bees) <https://anthophila.myspecies.info/>
- Carlos Martínez (World Myriapods) <https://myriatrix.myspecies.info/>
- Antkey (World Ants) <https://antkey.myspecies.info/en>

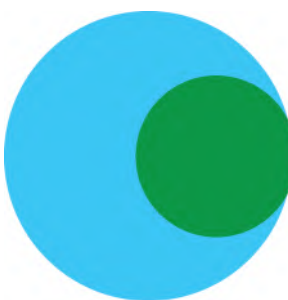
The managers of the above sites formed the core of the SoS group looking for solutions, like me they'll have been busily tidying up the material on their sites whilst they can.

A useful direction to have gone with this concept would have been to improve ease of use for managers (many lost patience), better features and integration into other projects (e.g. iNaturalist, GBIF) and much better promotion.

Debates continue regarding the best alternatives but even the limited functionality of a good community forum (<https://invisioncommunity.com/>) will cost ~£1-3k pa. Perhaps a new approach will emerge one day.

Fauna Europaea

Fauna Europaea itself is outdated (Martinez, 2023)



A European Atlas from my recording scheme produced 5 years ago discovered 246 country-occurrences (species per country) from all published papers [green], closely matching Fauna Europaea's maps (they missed only 3 [red].) Fauna Europaea don't cite any of their sources though so an additional 296 country-occurrences [blue] remain a mystery*.

*One could speculate that European Museums were the sources but since the majority of them don't respond or publish, their collections remain mysteries known to few. "National checklists" may be another source but these have proved inaccessible; not Open Access or not published.

In those early Scratchpad days it proved possible to produce referenced checklists for all European countries by collecting all accessible published papers and tracking other reports (e.g. iNaturalist and other sites.)

Though new country-occurrences don't happen very often, on a few occasions I've been able to tell someone on iNaturalist that their sighting is a first for their country, including one large set from Austria. So have others, like Jocelyn Claude for France. The number of new country-occurrences has consequently grown steadily since then as a consequence of these iNaturalist finds. An updated Venn diagram would nowadays show a lot more red.

The above analysis is a sample, a "one-off", from likely the only taxonomic group where every accessible published paper has been collected and cross-referenced to countries.

Biogeographic distribution patterns are dynamic, evolving as new records are made, not so often in published papers but very often through online recording systems, all of which end up on GBIF.

If you're publishing an article about some species therefore, and want to include a line or two about its European distribution then you've the dual task of checking all published papers and consulting GBIF. Quoting Fauna Europaea alone would be misleading.

For Fauna Europaea to improve in value in this regard it would need to have its maps dynamically linked to GBIF, have several teams continually checking published papers for new occurrences and incorporate an extensive bibliography linked to each taxon. National checklists, where known, also need to be published as Open Access. That's a huge task even within a small taxonomic group using a website template designed for that purpose - Scratchpads - but that's no longer available.

Fauna Europaea hasn't been updated in years.

References:

- Sumner D.P. 2021. "Fauna Europaea". Bulletin 92. p31
- Sumner D.P. 2018. European Atlas: Micropezids & Tanypezids (Diptera, Neriodea & Diopsoidea). Preprint. A 1: 1-94.
- Sumner D.P. "European Checklists." Micropezids & Tanypezids, 2023, <https://micropezids.myspecies.info/node/353>
- Sumner D.P. "European Species." Micropezids & Tanypezids, 2023, <https://micropezids.myspecies.info/taxonomy/term/8>

A rebrand. NHM love their logos, a typical Scratchpad one is at left. The frozen ice cube version above is by us. In our Recording Scheme News section look out for the "sat on ice" symbol to indicate those affected



Darwin Core



Databases have developed a lot, from simple 128 character-wide lists on mainframes then on to detailed relational databases comprising many linked tables as in MS Access and for biological recording in applications such as Recorder and MapMate. A huge amount of work went into these; well thought-through concepts by the likes of Stuart Ball and Charles Copp.

With online recording and data silos we'd to return to the simple list concept; download a dataset from iRecord, NBN Atlas, iNaturalist or GBIF and you get one wide list, to analyse these you've to reconstruct the relational database from them.

For our traditional biological recording applications, methods of transferring data from one installation to another were devised. Gradually an international data transfer standard evolved too - Darwin Core.

Though now used extensively throughout the world Darwin Core comes in for criticisms. Examples include the absence of critical fields to identify recorders or to link to other modules and its handling of dates. It's now used to help transfer data from Recorder (and spreadsheets), to NBN Atlas and to GBIF.

It becomes clear from the statement "*Darwin Core is being incorporated in communities beyond that of natural history collections, in which the standard has its roots.*" (Wieczorek et al. 2012) that it was initiated amongst museum IT professionals and any use by us naturalists, the originators of most of the records, was considered later on, if at all. It originated in the USA and if you recall the article "Citizen Scientists" about Chris Thompson (Smithsonian, USA) from our 2009 AGM, our two centuries of amateur recording are unique to us, the Netherlands and a small handful of other areas in Europe.

For us therefore, Darwin Core is an entity arising from a different culture, we are more familiar with our centuries-old amateur naturalist culture (*nomen novum* "citizen science") with tools and methodologies for which Recorder 6 and MapMate were developed. We need all these tools because it's we amateur naturalists who do most of the recording and analytical, taxonomic & dissemination work here.

Already more than a quarter of all the occurrence data for flies (Diptera), some half million records, are provided [on GBIF] by the UK dipterists! (Chris Thompson, Smithsonian Institution, U.S. Museum of Natural History, 2009)

In subsequent years the museum professionals have been uploading data and claiming primacy via published papers. At the same time the traditional naturalists have been uploading data to GBIF too, through extractions from historic datasets, via GBIF nodes of several countries related to online and other recording initiatives and, most notably, iNaturalist. GBIF don't publish figures but it would be interesting to know how much this hare/tortoise balance has altered since Chris Thompson's analysis.

The only simple DwC spreadsheet model that could be used by us naturalists, so far as I'm aware, is the one I devised to help digitise Steve Falk's records. (Bulletin 92.) Clearly the DwC originators never perceived the need to develop such a tool as they employ IT specialists who do things - well, the way they do things.

Personal collections. The instinct to collect and organise stuff is strong, why else would folk go out and catch flies if not to record their finds and amass pinned representatives or

photographs. There seem to be conceptual differences between new world and old world naturalists in this regard as a brief debate on iNaturalist suggests <https://forum.inaturalist.org/t/how-do-you-keep-your-personal-records/18401> but that's just part of the picture, it's a large topic that's hard to pin down

There are indications that UK museums are beginning to use DwC to bung stuff on NBN Atlas and GBIF (see DISSCO project item below), look for the World Museum (Liverpool) datasets on NBN Atlas for example at <https://registry.nbnatlas.org/public/show/dp242> (11,060 records)

References

Wieczorek J., Bloom D., Guralnick R., Blum S., Doring M., Giovanni R., Robertson T. & Viegals D. 2012. Darwin Core : An Evolving Community-Developed Biodiversity Data Standard Darwin Core : An Evolving Community-Developed Biodiversity Data Standard. PLoS Genet. 7: . <https://tinyurl.com/4dxyb5vc>

Thompson C. 2010. Dipterology, Yesterday, Today and Tomorrow. Bull. Dipterists Forum. 69: 4 + 19.

Verification

Quality control regarding identification is a process that requires some degree of expertise. If that process is highly stringent then it may require either a team (e.g. our Hoverfly Recording Scheme or the Leicestershire Lepidopterists) or one or two experts with time available (a small handful of Dipterists Forum Recording Schemes.) At the lowest end of this QC scale come those methods which rely purely on non-experts (some public surveys.) A compromise between the two extremes is the iNaturalist method of verification which begins with AI then seeks consensus, only rising to high QC standards when experts become involved in that process.



Identifiers from photographs: iRecord & iNaturalist contrasted

Training or improving the expertise of identifiers is a role that Dipterists Forum has taken seriously since its foundation - with workshops, field meetings, keys and books. Nonetheless the shortage of expertise, or perhaps just confidence, inclination or time, remains a severe barrier to records processing.

Recruiting expertise from further afield seems one solution to that shortage as the cartoon shows, red figures are from France, Finland, Austria, Lithuania, Netherlands, Portugal etc.

Publishing & peer-review

Take a respected journal such as Zookeys and look at their specifications for anyone submitting a paper; they're frighteningly stringent. Furthermore the peer-review process for such papers are likely costly, especially if the reviewers need paying (taxonomists are as entitled to a salary as anyone else.) Amazing then that smaller membership journals such as our own DD manage to achieve such high standards. Which doesn't mean that there's nothing to be learned from the bigger journals as they respond to modern demands.

Several publishing issues have been discussed in previous Bulletin articles:

- the setting up of a means of publishing online-only articles (Bulletin #88)
- a move away from outmoded presentation styles and towards modern standards, particularly dates and geospatial coordinates (Sumner, 2020 in Bulletin #90) and
- the provision of Open Data references wherever appropriate (see below)

Open Data in publications: case studies

Expeditions are perhaps the simplest illustration of the use of Open Data in publications. You and your team go out, collect a load of stuff, upload all those records to a GBG then write it up as a report in which you provide a pointer to where those records are. Those FAIR records will eventually prove of value in research by others.

one day that paper may be the only evidence that such a creature ever existed [Sumner, 2020]

Case 1. Dipterists Forum Field Week

Our latest completed example would be our Stirling Field Week in 2019, written up as a report in this Bulletin and with an Open Data dataset at <https://registry.nbnatlas.org/public/show/dr2642>

- Identification: UK & European keys
- Recording application: Spreadsheets, desktop recording applications (Recorder & Mapmate), online systems - BRC's iRecord (UK only) + iNaturalist (images only)
- Species index: UKSI
- Records submission: BRC, NBN Atlas direct submission (various methods)
- Published: With Open Data - in this Bulletin

Subsequent expeditions have similar write-ups and Open Data datasets are in the pipeline.

Case 2. Elias de Bree & Albania

Working on material from a Netherlands team of naturalists who visited the Valbona National park in 2019, the author came up with a list of acalyptrate diptera trapped via vinegar traps (<https://tinyurl.com/3vm7b4ut>)

Albania is poorly studied for diptera so this list is important.

What has the author got access to in order to make these records available as Open Data on a GBG?

- Identification: European keys
- Recording application: Spreadsheets only, iNaturalist (images only)
- Species index: No formal European lists but one can be created using GBIF codes
- Records submission: Nothing locally, Albania is not listed as a GBIF participant so they've no NBN Atlas equivalent. The Netherlands' GBIF participant (NBIF) is museum collections based whilst their Waarneming online recording platform is confined to Netherlands & Belgium. Our NBN assisted me in uploading a dataset for another country to GBIF though it's unclear how that might be implemented from the Netherlands. Their international <https://observation.org/> might be an option, since GBIF lists 66M occurrences from that site.
- Published: Journal article without Open Data reference

Entire science sectors such as Ecology, Conservation and Biogeography rely on the widest possible access to species occurrence data - our records. As a "recording" organisation Open Data must be one of our top priorities. Apologies to Elias for selecting his conundrum, no criticism implied, there are many other similar expeditions which we could have chosen, European museums are particularly prolific in organising such things. UK examples include Cardiff museum's expedition to Slovenija, Liverpool's to Turkey and Dipterists Forum's to France & Hungary.

References

Ball A. & Duke M. 2015. **How to Cite Datasets and Link to Publications**. Digit. Curation Cent. . <https://dcc.ac.uk/guidance/how-guides/cite-datasets>

A comprehensive set of instructions to authors who provide or use Open Data - a "must have"

Chavan V. & Penev L. 2011. The data paper: a mechanism to incentivize data publishing in biodiversity science. BMC Bioinformatics. 12 Suppl 1: S2.

Useful advocacy reading

Sumner D.P. 2020. "Publishing practises old and new". Bulletin 90. p10-11

Advocacy

Just how rife ancient practises are in papers published within our sector is hard to gauge. To survey all diptera papers for them would be a huge task but I see the tiny handful, perhaps three per year, published in my little area of interest and this year they're all faulty to some degree. The peer-review process is inadequate because claims are made in them which are not backed up by data. They are only checked by reviewers with

expertise in taxonomy but should also be checked by biogeographers, those with basic Open Data biodiversity informatics knowledge & bibliographers.

Dipterists Digest has those in our peer-review mix making it a premier place to publish. Other publishers are not so stringent and for me they'd have gone straight back to the authors with the kind message to "fix that please":

1. Distribution claims not backed up by any evidence or even a GBIF search
2. Use of deprecated formats (dates)
3. Imprecise locations (i.e. text only with no geospatial coordinates)
4. Failure to consult relevant papers, even those readily found by an internet search, resulting in fallacious claims
5. Failure to upload relevant species occurrence data to a Global Biodiversity Gateway (GBIF or a country one like our NBN Atlas)
6. Failure to cite the source of that or other relevant data

Such advocacy is our obligation since we're a suite of recording organisations and I've to advocate the better use of Open Data on behalf of GBIF. Even the most prestigious publishers (Zookeys) in our sector don't demand Open Data citations, nor do they show any signs of adopting any of the current standards above. Open Data is our special talent though, we can and we do; we can show them the way.

Open Data

Though many science disciplines lay claim to have come up with the idea of Open Data I would maintain that we naturalists got there first.



Some disciplines (e.g., Environmental science) sharing data for decades because these fields rely on large and shared infrastructure (Nehra, 2023)

Clubs and societies were set up simply with the objective of sharing information unconstrained by the restrictions imposed by big publishers and professions. Pick up the first ancient volume of some society wildlife journal and you'll see that sharing philosophy, right back to the early 1800s. Dipterists Forum itself was set up with sharing in mind, we're a bunch of Recording Schemes - note the word "Recording". Naturalists weren't slow to pick up on the potential for wider recording through the internet, Mapmate and Recorder were devised to help share then we dreamed up and invented our sharing platform through the NBN whilst BRC chipped in with their iRecord. More initiatives abroad too, with GBIF set up as the "one ring to rule them all" and taking in records from setups similar to our own from a multitude of country "nodes" (e.g. our NBN Atlas and Netherland's Waarneming.nl) whilst iNaturalist was set up to capture records from the entire world.

Chemists have Open Data issues to deal with too, on the one hand Mendeleyev was able to devise his table of the elements by trawling published papers (melting points etc.) but after publishing data one PhD student was threatened with "The above article contains copyrighted material in the form of a table and graphs taken from a recently published paper in the Journal of the Science of Food and Agriculture. If these figures are not removed immediately, lawyers from John Wiley & Sons will contact you with further action." (Murray-Rust, 2008)

So other science disciplines have their problems too. Read about medical, pharmacological and other issues in Ritchie, S. (2020). *Science Fictions: Exposing Fraud, Bias, Negligence and Hype in Science*

Sadly natural history has always been plagued by sharer/hoarder conflicts, all the way back to egg-collectors, indeed A.R. Wallace relied on collectors to make his living by selling butterflies and such. A practise very much alive today on ebay.

Library utilities

Bibliographies & citation managers

The traditional method of collecting published papers is subscribing to journals and then keeping them on library shelves and binging others as photocopies in filing cabinets arranged alphabetically by author. If you're a member of the RES, a university or know someone you can cadge from, then you've a chance of building up a useful library. Depending upon the breadth of your subject this can take many years.

Very demanding upon space too, and requiring an eidetic memory if you're wanting to put a paper or book together. Less gifted mortals won't have that space or memory and more likely will turn to storage in the form of pdfs and some means of searching through them.

Ideally you'd also want to find someone with similar interests and be able to share those collections with them.

We've only a handful of tools which can help with this:

1. A good pdf reader with search facilities that can extend beyond the opened file and search for key words through folders
2. A citation manager which allows you to add key words (Mendeley)
3. Recorder biological recording software
4. Scratchpads (discontinued)

A highly unsatisfactory bunch of tools.

The pdf reader is pretty basic and won't help you assemble a list of references you might want to add at the end of a paper. It'll help you locate a topic in your pdf collection of Bulletins though.

The citation manager will find stuff more easily though, it's a pdf reader too; trouble is that there's only Mendeley and it's poorly featured and maintained and not configured for our sector of science - having to hand-type lists of taxon names is something that belongs to another century. Worth having and using though, but don't leave it until you've built up a large collection of pdfs, you'll lose patience after a couple of dozen and it's only really useful once you've entered details of all your [Sciomyzidae] collection of pdfs whereupon you can run a search for [*Limnia unguicornis*] and read everything that's been written about it - tip: start with Stuart's key, using a UKSI download for a list of taxon names to put into the My Tags field.

Recorder does have a simple feature incorporated, perhaps someone uses it and will have positive things to say about it.

Scratchpads worked nicely once it had been populated, not a particularly easy methodology getting bibliographies in there but it was workable using Mendeley first and you ended up with a nice comprehensive list of papers when you consult the taxon page:

<https://micropezids.myspecies.info/taxonomy/term/20/literature>

compare that with the information on NBN Atlas (<https://species.nbnatlas.org/species/NBNSYS0100004229>) or GBIF <https://www.gbif.org/species/4516270> or any Wikipedia or similar lists

No longer an option now of course but the facility to build bibliographies would be high on the list of desirable functions should anyone build a new version.

Our sector lacks an adequately functional bibliography and citation manager for taxonomic and other material which will permit collaborative work with co-workers.

Open Access to published works would be handy too - but that's another story.

Forums

It's said that most of the material on the internet consists of junk text from abandoned forums in their various forms. I guess the various corporate media platforms are the most popular current formats but Bulletin Board style forums may still be popular and active, top examples being Diptera.info, iNaturalist and GBIF (with DPReview for photographers.) and several application-specific ones such as those for Serif's Affinity software and photool's iMatch. The latter act as support for the product and give developers ideas for how to use and sometimes fix their products should bugs be detected by users. The NBN forum, though an old style bulletin board, still acts in that way in respect of Recorder 6, detailing continued updates and development as well as giving updates on NBN Atlas.

Important resources then, so it's disconcerting when one just disappears.

This was the case with Field Studies Council's FSC Biodiversity Forum. It too provided product support for their various Biolinks applications such as Identikit (online identification system) and TomBio tools for distribution mapping using QGIS. You may have seen these demonstrated by their author Rich Burkmar. When the FSC's Biolinks Projects funding was discontinued they revised their website and removed this Forum leaving behind several broken links. The marvellous tools still work fine but gone is the support from Rich and Charles Roper and all the messages and enquiries we had on there.

NBN tell me they plan an overhaul and revision of their own forum where there may be a place again for such utilitarian material and discussions.

Darwyn Sumner

GBIF Biodiversity Open Data Ambassador

Biodiversity targets

The most recent summary of the status of a variety of UK "targets" is by Miles King in British Wildlife (August 2023, *Boris Johnson's green legacy*)



Snowdonia 2017 (photographing Greater butterfly orchid)



Yardley Chase 2017, admiring a log with Rob & Roger

Museum digitising projects

One of the "fly-fishing" topics in the last Bulletin has generated some interest and responses from readers; that of "museum-based projects"



A major story, passed to me by NBN's Sophia Ratcliffe was that of a UKRI funded project, DISSCO, to digitise and support the sharing of UK collections records. You'll find details of this at <https://www.dissco-uk.org/> where they've a smart booklet to download. Particularly pleasing in there to see an emphasis on Natural History Societies across the country. For a more formal paper by Vince Smith try <https://biss.pensoft.net/article/91391/>

... the UK museum sector was thinking seriously about how to bring together the nation's collections online. Progress was made, only to fizzle out as sector responsibilities chopped and changed. Today the UK is just about the only European country that lacks this capability

[Kevin Gosling, Collections Trust, 2020 <https://tinyurl.com/4hb3872t>]

We look forward to museum collection datasets appearing on NBN Atlas & GBIF. We'd also like too to see the Open Data datasets for all the overseas expeditions they organised, funded or were involved in. The official guide to this topic which can be found at <https://tinyurl.com/757a47v3> states "Your funding body may mandate you to release your underlying data set as an open data set", it's part of the Freedom of Information Act and UK Government's Open Data policy.

I curated the A.E. Wright hoverfly collection at Liverpool back in the late 80s, now I wonder where that spreadsheet is? Simon Hayhow curated the diptera collections at Oldham Museum, we'd love to see those as Open Data, there'll be tons of Leonard Kidd's material in that.

Back in March Erica MacAlister forwarded my request for a Bulletin article about the DISSCO project to "folks at the museum who are directly involved with this". Hopefully they'll be in time for our next issue.

Museums in Europe

Open Data: From the Fauna Europaea item above, one could estimate that less than half of their known collection data is published as Open Data

Muséum National d'Histoire Naturelle in Paris: Researchgate features an appeal regarding this important collection. There is a plan to relocate the collections 250km away from their curatorial staff. Read the appeal at <https://tinyurl.com/y69c8mu6> (in French)

Darwyn Sumner

Overseas

Do many of you subscribe to the Dutch wildlife newsletter Waarneming.nl The language problems are easily overcome with online translators and you might even pick up a phrase or two. They frequently have something intriguing, even Diptera from time to time.

In their #94 newsletter there's a use of kml files and Google Earth that caught my eye. It's actually to do with plotting your sound recording (birds presumably) but it's an impressive use of mapping and geotagging on their biological recording site.

Speaking of that country don't forget to catch up on Diptera. info messages, there's tons of intriguing stuff that'll entertain and if you happen to chat to its operator Paul Beuk, wish him *goede nacht*

iNaturalistUK



If you're in the habit of firing up the computer with your first cup of tea of the day then iNaturalist can be a lot more uplifting than checking emails.

Off-season you'll see little more than fungi and birds and maybe a few plants in the site-based projects that have been set up. I've several in Leicestershire & Norfolk. Swans in Groby Pool (sigh) but a terrific collection of mosses and liverworts at Holt Country Park since I last visited.

In-season there's a growing number of records in the taxa-based projects as people get out and about with their cameras. *Rhagio* and *Bombylius major* appeared early on in the Soldierflies project and it's good to see that some folk got close enough for good snaps of the latter in the cold start to the spring; more records for Martin Harvey's monitoring project. *Atherix ibis* in North Lanarkshire in May was my early favourite. Sam Rees & Ian Andrews identify a lot of the Soldierflies on iNaturalist but the Austrian Nikola Szucsich tops the list whilst Californian specialist Martin Hauser comes a close fourth. Lots of international identification contributions to our UK recording schemes - thanks guys.

Don't forget that iRecord features a system for causing all this iNaturalist data to flow into the BRC silo so Martin Harvey will be busily checking all these off for his Recording Scheme.

I get international expertise for my Recording Scheme too. I set my iNaturalist project up to cover Europe and France's Jocelyn Claude has been a big help with the trickier ones. I swear his eyesight's better too. Our UK dipterists do a good job as identifiers throughout Europe too, Matthew Vosper is second in the list (50,000+) with Sam Rees fourth and Ian Andrews seventh.

I watched the season gradually progress as the first *Psila* came out followed by the spring *Chyliza* then *Neria cibaria* emerging first in Spain, then Germany until finally waking up in the UK.

If you've a favourite group you want to keep an eye on then choose one from our list at <https://www.inaturalist.org/projects/dipterists-forum> and drag the link to your browser favourites. The little ones are most entertaining because they've fewer commonplace species, one new Oestrid record is something to shout about. In the case of the big ones you get to see some cracking stuff too, like this *Asilus crabroniformis* by J Ballam in Dorset:



Do join the projects too, it helps encourage the Recording Scheme organisers by showing them that there is interest, additionally the project icon then appears alongside any future records you make. This is a particularly useful feature if you join a bunch of site-based projects - look for them in your own Vice County or set them up yourself.

Plenty to keep you entertained over a cup of tea.

Darwyn Sumner (see my iNat profile for site project links)

Studying mosquitoes in the UK: why bother?

Mark Welch

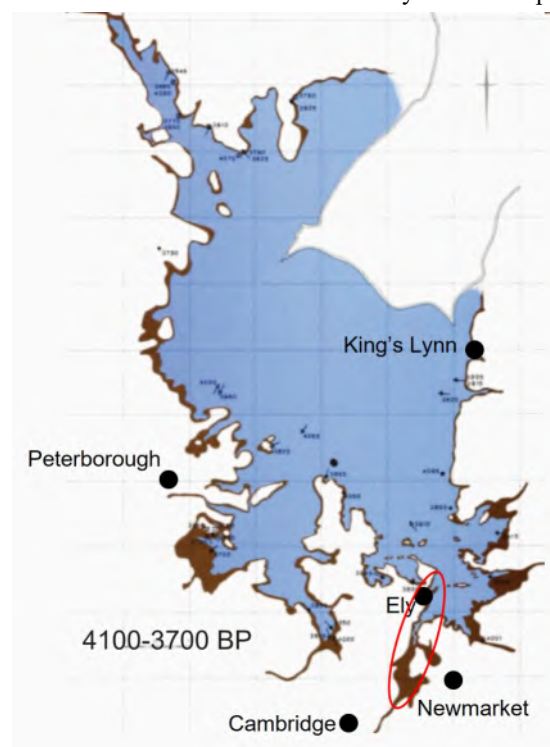
The list of mosquitoes recorded in the UK currently numbers 37 species. In the status review of Nematocera by Falk and Crossley (2005) eight species were listed, of which one (the tree-hole specialist *Orthopodomyia pulcripalpis*) is pNT and the remaining seven are Data Deficient. Mosquitoes seem to attract little interest from the UK natural history community. This may be because few are interested in conserving mosquitoes and there may be a perception that they pose little threat in the UK beyond rare localized outbreaks as a serious biting nuisance, as has happened recently in Merseyside (*Ochlerotatus detritus*) and Nottingham (*Aedes vexans*). The relatively small UK mosquito fauna contains an interesting range of generalists and specialists, and several species remain poorly understood. The Health Security Agency (formerly Public Health England) has a small team of outstanding scientists including Jolyon Medlock and Alex Vaux tasked with monitoring nuisance arthropods ranging from mosquitoes to ticks. The Mosquito Recording Scheme has been revamped recently and welcomes new records.

From the 1960s to 1990s the late Mike Service, a professional entomologist specializing in Culicidae and other arbovirus vectors, made ground-breaking studies of mosquitoes in the UK, particularly at coastal sites in southern England and at Monks Wood. Much of our knowledge of the phenology, ecology and biology of mosquitoes in the UK is founded on his research. Service's studies along with the foundational work by Frederick Marshall and colleagues at Hayling Island in the 1930s and 1940s are inspiring to read about. Marshall's magnificent monograph *The British Mosquitoes* (1938) has exquisitely detailed descriptions of egg, larval, pupal and adult morphologies, many beautifully illustrated by A.J.E. Terzi. I have a signed first edition of it! The FSA key by Cranston et al. (1987) draws heavily on Marshall's book. The Wetland Mosquito Survey Handbook published by HSA in collaboration with NE, Natural Resources Institute, University of Greenwich and Wetland Life (Hawkes et al. 2020) provides an excellent up-to-date summary of the UK fauna, focusing on habitat requirements, phenologies and threat mitigation. Email me if you want the PDF (m.welch@nhm.ac.uk). In one of my few concessions to Nematocera, I have been studying mosquitoes in Cambridgeshire and Norfolk over the past four years, and I have been surprised at what I have discovered (see below). Sampling larvae, pupae and adults is usually straightforward. I have particularly enjoyed rearing pristine adults from larvae (photos below) – again, fairly easy to do but it requires patience, persistence and attention!

Inland populations of coastal mosquitoes My sampling of ditches and flooded grassland at the Ely wetlands adjacent to the river Great Ouse in Cambridgeshire has revealed that there are populations of three strongly coastal mosquitoes: *Culex modestus*, *Ochlerotatus flavescens* and *Culiseta litorea*. An interesting story is emerging in which populations of coastal mosquitoes (also *Oc. caspius* and *Oc. detritus*) in the Fenland Basin may have an ancient coastal origin (Welch 2022, 2023a, 2023b). During the last 4500 years following the end of the Devensian glaciation and with an ameliorating climate in the Holocene, there were three major marine incursions into the Fenland Basin. The most extensive of these incursions was 4500-3700 BP, during Neolithic times, when the sea reached within a few kilometres of Cambridge, Peterborough and Newmarket; Ely, where I live, was on a coastal peninsula surrounded by saltmarshes (Figure right).



Above: *Culiseta litorea* adult male and live 4th instar larva from the Ely wetlands. **Below:** Palaeogeographic reconstruction of the Fenland Basin during the Neolithic marine transgression 4100-3700 BP. Sea is blue, peatlands brown. The only inland UK occurrences of *Cs. litorea* are shown by the red ellipse.



Vector vigilance With the recent rapid spread of mosquito-mediated viruses across Europe there is a need for vigilance and monitoring of the UK fauna. The HSA team collects specimens regularly from a national network of 40 “mosquito magnets” and Sentinel traps (both are CO₂-± lure-based suction devices), primarily focused on airports, motorway service stations, tyre depots and seaports. Non-HSA people also contribute samples to this survey using traps loaned by HSA.

We are now witnessing an alarmingly fast spread of the Asian Tiger Mosquito (*Aedes albopictus*) across Europe in response to a warming climate. This mosquito is now established in 68 of the 101 French departments. Paris and Ile de France are under a red alert. *Aedes albopictus* is a vector of Chikungunya virus, dengue fever and Dengue fever. In the UK it was first detected (egg morphology and reared adults) at Folkestone in 2016. The jury is currently out regarding a future incursion and long-term establishment. What is clear is that the climatic conditions in the UK are now suitable for this mosquito.

Birds are a source of West Nile and Sindbis viruses, both now widespread in Europe. These viruses are mediated by several mosquitoes including *Culex modestus*. There are large populations of this mosquito in the North Kent marshes, first discovered there in 2010. Infected birds migrating to the UK from continental Europe pose a significant threat. The Kent populations are being monitored intensively by HSA scientists e.g. Vaux et al. (2015).

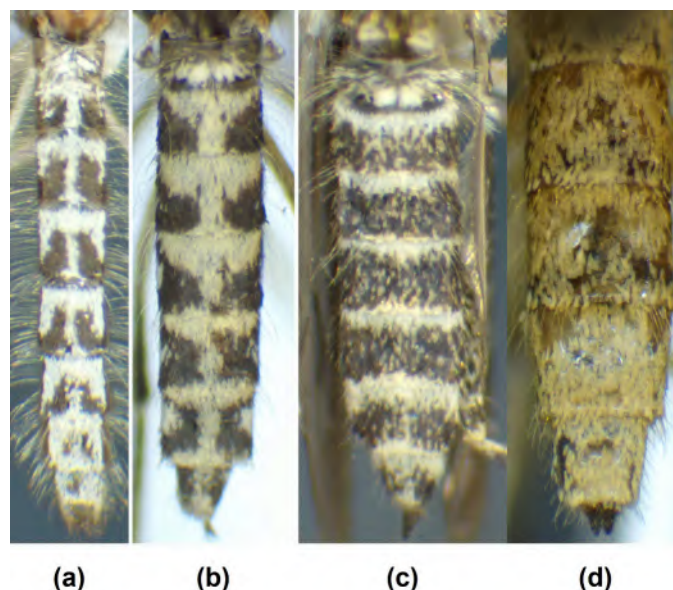
With the rapid spread of mosquito-mediated diseases across Europe, it seems increasingly likely that West Nile and Sinbis will arrive in the UK in the near future. Only by regular monitoring and sampling can such threats be identified in a timely manner. The Ely studies show that unexpected inland populations of mosquitoes can be detected and thereby inform the national picture of species distributions and their phenologies in the UK.

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- Welch, M.D. 2023b. Mosquitoes of the Fenland Basin: past, present and future. *Nature in Cambridgeshire* **65**, 47-59.



Above: Female *Ocherotatus caspius* reared from larva.

Below: Abdomens (dorsal view) of: **a.** *Oc. caspius*, (m), **b.** *Oc. caspius* (f) **c.** *Oc. detritus* (f), **d.** *Oc. flavescens* (f).



Goniat ornata, Braunton Burrows [Rob Wolton]

Conservation

Save Britain's Rivers



Concern about the health of our rivers has reached an extremely high pitch. We've been banging on about it in the Bulletin for a while but now New Scientist have thrown their weight behind it, they never campaign but they are doing now for the first time ever.



Scathophagidae: "It may be shit to you mate but it's bread and butter to us Water Company shareholders"

The campaign continued with a number of articles by award-winning writer Graham Lawton and several others throughout the year, reflecting the uproar about river pollution and sewage you've undoubtedly come across in the national press. Impossible to track them all but one notable article "Rivers of filth" by Michael Marshall (New Scientist 12th August) summarised the situation rather well and gave some figures, and offered solutions.

Closer to our concerns regarding habitat degradation was the Observer report a day later "More than 90% of protected river habitats are blighted" (Jon Ungood-Thomas & Maximilian Jenz) which focussed on the SSSIs affected by polluted rivers.

unable to "get this specific dataset"

(DEFRA, when asked for "a list of rivers in England which are SSSIs and their current status")

Volunteers in the Wye Valley are doing a far better job than the professionals (see Oliver Dowden UK gov policy on p2.)

DEFRA is such an awful government department that it deserves derision

Mark Avery, British Wildlife, August 2023

The CPR Wales have produced a map of intensive chicken farms in the Wye Valley. A toxic produce no longer on my shopping list and a once fabulous valley that's been scrubbed from the field itinerary of many.

Norfolk fares badly too but it's the Wensum that's worst hit so hopefully the Bure remains better.

Perhaps someone knows how to set up a site as a SSSI or how to get it surveyed for diptera somehow, then perhaps my top Bure wetland site (<https://www.inaturalist.org/projects/burgh-next-aylsham-riparian-wetland>) might survive the filth. I have enquired with NBIS about setting it up as a Local Wildlife site. If you happen to be local, take some cleaned out grapefruit skins with you in May, maybe *Neria commutata* fancies that food source too (see Judy Webb's work using this technique for Stratiomyids below)

Darwyn Sumner

Buglife survey

Important Invertebrate Areas

Mark Welch informed me of this survey in March so I guess he's going to elaborate in his report in this Bulletin.

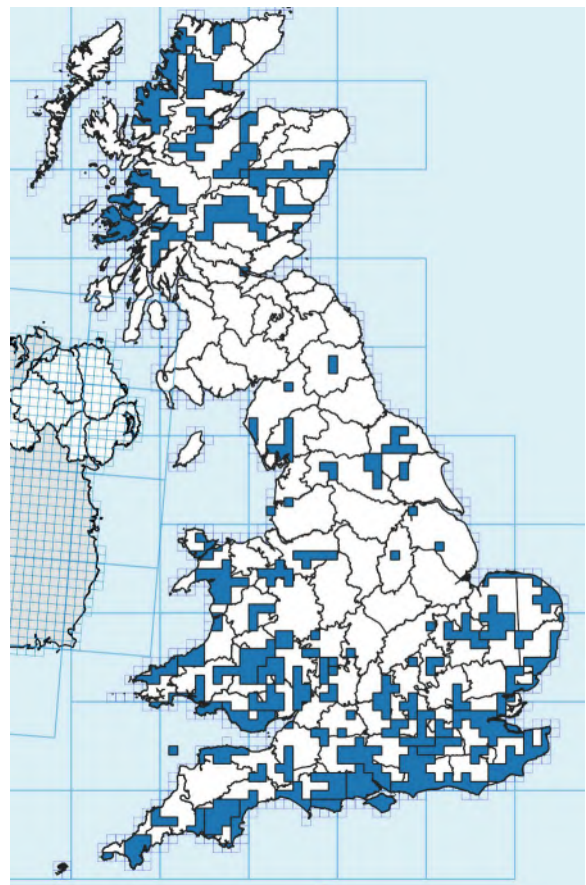
One curiosity that interested me though was regarding Jamie Robins figure of 45M records gleaned from 80+ invertebrate recording schemes which were used to devise these areas.

I could find around 30M as Open Data on NBN Atlas, which means that Jamie found 15M from other places.

Some of it will be on BRC's iRecord, awaiting their monthly transfer to NBN Atlas. The iRecord silo has 22M, much of it already transferred but a heck of a lot caught up in the verifier bottleneck. That's the quality control part of the work that Recording Schemes carry out so if that 15M figure disturbs you then join in with any of the Recording Schemes initiatives and help them out. Dipterists Forum obviously only deals with Diptera but there are lots of other invertebrate schemes out there. BRC maintains the definitive list, take a look at <https://www.brc.ac.uk/recording-schemes> which looks a bit bland at first but those links will take you into other exciting worlds of earthworms, butterflies, beetles and wasps.

Some Recording Scheme's datasets are on neither system or are pending on your own computer. Stay safe with those, we've featured articles on security and backups which are worth checking regularly as the digital world is rapidly becoming less safe.

I did quiz Jamie about a statistical breakdown of all those records just in case Buglife had run such an analysis, he could shed no more light on that topic though. However since it's the ever-helpful Buglife I tried for a scrounge as well and got the following map out of them as a QGIS layer:



Buglife's Important Invertebrate Areas (as of March 2023)

Conservation Officer report

The Buglife Important Invertebrate Areas (IIA) Project

Mark Welch

In March this year Tony Irwin and I were invited by Jamie Robins of Buglife to participate in an online meeting on IIA, specifically relating to the North Norfolk Coast IIA. This 3-hour session involved detailed fine-scale (monad) evaluation of records for sites, both protected and unprotected, stretching from Roydon Common NNR to Blakeney. I was unaware of the details of the IIA mechanism and so this meeting provided valuable information about how the IIA project works. Jamie circulated a PDF about IIA that can be obtained from me (m.welch@nhm.ac.uk).

An online site provides details of the rationale and implementation of the IIA approach can be found on the Buglife site: www.buglife.org.uk/our-work/important-invertebrate-areas/ (details at <https://www.buglife.org.uk/our-work/important-invertebrate-areas/> and a YT presentation at <https://youtu.be/mAsrh6NehE> - Ed.)

98 qualifying species in total

Includes data from Norfolk Biodiversity Information Service in addition to the national recording scheme datasets, thanks to Natural England funding.

Please consider:

- Species that might be extinct since 1990.
- Migrant species records which are not truly resident in the area.
- Errors in datasets- including misidentifications .
- Whether sites supporting records may have now been lost.



Status criteria used:-

A(i). Area supports **globally** endangered species: IUCN red lists CR, EN, VU

A(ii). Area supports **European** endangered species: IUCN European red lists CR, EN

A(iii). Area supports CR species on national red lists

A(iv). Endemic species in UK, not widely distributed.

B. Area supports a nationally important **assemblage** of rare or threatened invertebrates.

For the Norfolk Coast IIA there are two category A species (both beetles) and 96 Category B species of which only four are flies (3 dolichopodids and the hoverfly *Lejops vittatus*).

Species protection and conservation

Two recent papers by DF members on issues relating to invertebrate conservation have been published in *Antenna* and *Journal of Insect Conservation*:

Morris, R. and Welch, M. (2023) Institutional vertebratism is alive (and kicking invertebrates). *Antenna* 47(1): 23-27.

R.K.A. Morris & M.D. Welch (2023) Is invertebrate conservation in Great Britain best achieved by policies that increase species protection? *Journal of Insect Conservation* 27: Published online 25 June 2023.

The *Journal of Insect Conservation* review paper is Open Access and can be downloaded from the Springer website: <https://doi.org/10.1007/s10841-023-00485-9>

Contact Roger Morris (syrphid58@gmail.com) or MW (m.welch@nhm.ac.uk) for a PDF of the *Antenna* paper

Adopt-a-Species

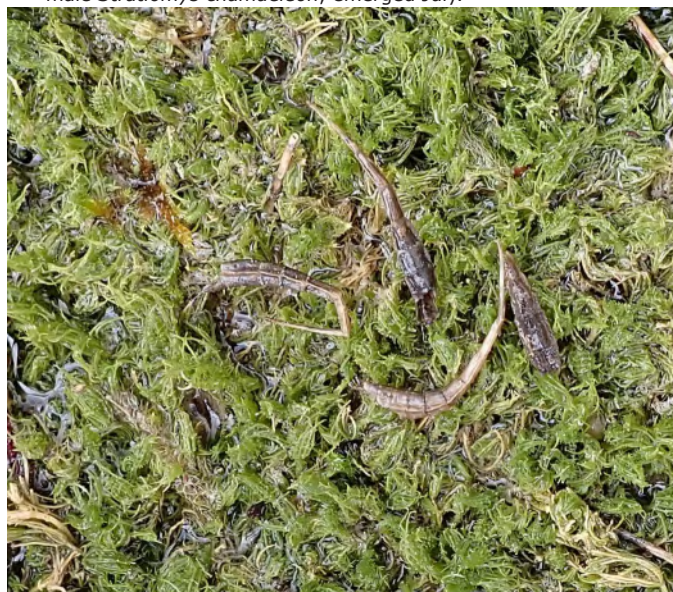
Rare soldierflies and grapefruit skins

Judy Webb

My observations in Cothill Fen are limited by managing only one site visit a week on a Friday, of course it is serendipity if the weather is warm and sunny and flies on the wing or rainy with nothing sweepable. This year I have been particularly interested to see if there is any observable effect of the damaging heat and drought of last year on larvae or adult fly numbers, but observations were hampered by a cold and wet April and by current July wet weather (but what a relief to have unexpected wet weather for the fen habitat, rather than heat and drought as exists in Europe). Lack of open, nectar-rich flowers in the fen limits the recording of adult Soldierflies at this site, sweeping in good weather locates only single adults, more often females. I have had most success searching the shallow margins of peat cut pools filled with *Chara* stonewort algae and water-logged moss mats. Looking for empty puparial skins on the margins is a good marker for sitting and watching for a while. Here around 11am on a warm sunny day one can occasionally find newly emerged adults sitting on leaves before they are hardened up enough to fly, a male *Stratiomys chamaeleon* newly emerged this year potted and illustrated here.



male *Stratiomys chamaeleon*, emerged July.



Empty *Stratiomys* puparial skins on wet *Chara* stonewort mats.

This year I have been trialling the Alan Stubbs grapefruit skin live bait traps (Stubbs, 1987) in the Cothill NNR section. This might be a better way of monitoring population numbers of soldierflies than looking for adult lies..

In this method, cleaned out grapefruit skins are placed in wet runnels or shallow pool margins like mini-igloos. As the white inner parenchyma layer gradually rots, it becomes attractive to amphibious larvae of Soldierflies, which accumulate under the skins to feed, presumably on bacteria. I first placed skins out in March and am still currently regularly replenishing them. I will report on the success of this fully in the next Bulletin, but early results are that they seem to be most attractive to *Odontomyia* type larvae, with lesser numbers of *Stratiomys* larvae. Nothing doing during the cold and wet April but activity increased a lot during May. Questions about the technique I have are:

- What species range of soldierfly larvae are attracted to the skins in any one site?
- How quickly do the grapefruit skins rot enough to become attractive to soldierfly and other larvae? (what other larvae are attracted?)
- How long before the skins become too rotten to be attractive and need replacing with fresh skins?
- Are orange half skins as attractive as grapefruit half skins or is there something special about grapefruit?
- How early in the year are larvae on the move and attracted to feed at the skins?
- What degree of wetness/depth of shallow water is best for siting the grapefruit skins (larvae need water to move)?
- What is the peak time of year for numbers of larvae under and feeding on skins – (expected to be June and July as in these months larvae reach full size, pupate and emerge as adult flies)?
- Is grapefruit trapping a reasonable way of population estimation of any one soldierfly species?
- How does temperature of surface water film affect number of larvae under the skins?
- How does height of vegetation or amount of bare peat/tufa affect number of larvae under skins?

Most numerous larval type seen under the skins at this site so far were *Odontomyia* sp. (see photo)



Odontomyia larvae Cothill

The skins attracted small black water beetles and water snails like small ramshorn *Planorbis* and *Lymnaea* sp. One example even had two Tabanid larvae under a skin, no doubt attracted by presence of prey soldierfly larvae.

After June, numbers of *Stratiomyid* larvae under skins steeply declined and only rat-tailed maggot hoverfly larvae were found under the skins. On the very hot day of 7th July no larvae of any sort found under skins and the skins were warm to the touch, possibly now too warm for comfort. More news on all grapefruit skin observations when the season has finished and

observations collated. I have also run the skin traps in Lye Valley fen SSSI in Oxford and the comparison with a different site is interesting.

At Cothill, observations of flies on the wing have been as follows. I saw just one *Triogma trisulcata* male flying at Cothill on 8th April (normal time for it in this southern situation) with the usual 'bimbling' flying motion (Oxon term); really just scrambling along through the fen vegetation, rather than flying above it. No *Odontomyia argentata* seen this year despite a search at the right time in May when Hawthorn blossom is out. *Odontomyia angulata* adults were first seen 16th June in lower numbers, but none were sweepable by the very hot day 7th July, so a rather short emergence interval this year or just very low adult numbers?

For the Clubbed General *Stratiomys chamaeleon* one newly emerged male was seen in the Parsonage Moor fen section on 9th June and one female swept in the NNR section on 16th June. One of the very similar but commoner Banded General *S. potamida* was seen on 16th June in the NNR. Flecked General *S. singularior* is usually seen as isolated individuals from the end of May, but this year the first was seen on 2nd June.



Odontomyia angulata

Interestingly in the NNR section I recorded the most *Stratiomys* type egg masses that I have ever seen. Remarkably some were quite high up on tall reed leaves over water in a pond – the highest egg mass was at 1.3m above water - what a long drop for the tiny larvae when hatched, I thought. A more usual height of egg masses above water is 30-50cm. I also wonder if laying high up is a response to very warm conditions in the water film in that particular section of a marginal pool. High level egg masses stay cooler....another thing to look into.

In June it was notable that leaves on trees and shrubs in the String Lane approach to the Cothill fen were coated with sticky honeydew from aphids. I have previously seen an adult *Stratiomys potamida* feeding on such honeydew coated leaves in my garden, so I wonder if this could be a good or even the main energy source for adult *Stratiomys* emerging from the nearby fen. From the end of June into July, lime trees of various species are in flower along the lane near to the fen and I wonder if adult *Stratiomys* are visiting the lime flowers for nectar. Too high up for me to sweep, though. Current rainy conditions at time of writing (26th July) have meant water levels have remained favourable with as yet no drying out of breeding pools and runnels at Cothill. Whilst this seems to be a chance freak of the Jet Stream moving down over UK, this might mean a better year for larval survival than the devastating drought of 2022. However more than one year of appropriate wet conditions will be needed for larvae that may take several years to mature enough for emergence as flies.

Reference:

Stubbs, A. E (1987) Larger Brachycera Recording Scheme Newsletter 4.

Fly-fishing



"Dipterists Forum are meeting on the Gower just now, shall we join them?"

"Nay, we're doing fine here"

The host of tales and tips to be found in this Bulletin come from across our membership. We could always use more no matter how complex or trivial and we'd like to hear from you.

Listed below are various Dipterists Forum's activities, our shopping list if you will of topics of interest to us all. Many are to be found in recent Bulletins. Do contact us if you are engaged in projects of interest to you or simply if you have a tale to tell. Help us keep everything buzzing.

A. Projects

Lots to get involved with amongst our various projects, actual or proposed:

- The Steve Falk digitisation project.
- Rob Wolton's Cairngorms project
- Jon Cole records project
- Any regional or museum-based projects

B. Publishing

Dipterists Forum's publishing team is a lot smaller than you'd think. Peter Chandler handles all the complexity of the Dipterists Digest pretty much on his own, similarly for the Bulletin we've a very small team; one editor/feature writer + publisher (compiling contributions from others) together with a proof-reader/admin. and folk who negotiate the printing. There's evidence of harm to other organisations when contributors drop below a certain threshold (BRISC, NFBR, MES etc.)

Phil Brighton raised awareness of this potentially dangerous bottleneck some time ago, consequently further additions to the publishing team are urgently sought. Rob Wolton too, asking what would happen if something disastrous happened to key DF members. For the editor this came in the form of NHM's Scratchpad freezing which jeopardised Recording Schemes and sucked up immense amounts of time.

Consequently your help is sought with all sorts of things:

Bulletin 97

- Brief reviews of books and articles
- More from our ecologists please. Articles relating Diptera to various habitats.
- Choose a presenter at our Annual Meeting to write about. The Youtubes are good but written accounts can be amazing.
- Feedback on any Bulletin topic
- Stories from the Recording Schemes and others. Start a newsletter now even though you may not finish it for a long time.
- Features editors & journalists to help investigate, report, compile, collate etc. Contact us to discuss areas of interest to you.
- Someone to review all the stuff on our Youtube channel, there's some fascinating stuff on there like Judy's video of *Stratiomys* larvae, the survey for *Caliprobola* in the New Forest and our Annual Meeting talks
- Copy Judy Webb into all Bulletin submissions & messages .

C. Recording

- **Anything the Recording Schemes are looking for.**
- Full **European checklists** for any Recording Scheme group
- Substantially better support for Recording Schemes by various organisations, cutting out beaurocracy would be helpful.
- Site datasets for publishing as Open Data to NBN Atlas (e.g. Diptera of Windsor Forest) as requested by Judy Webb, Mark Welch and others.
- Records from Summer Field meetings particularly Epoch 3.
- Stories arising from your use of Open Data (e.g. maps from NBN Atlas) be the context regional or taxonomic.
- **Identifiers** (British Diptera Identifiers (BDI))



Additional experts to sign up to verify groups on iRecord

Additional novices and experts to sign up to verify groups on iNaturalist - the Recording Schemes really need everyone's help with this, without you some of their work is stalled

- **Maps.** Putting together a distribution map for species of interest can be informative. A range of methods are available from those via NBN Atlas to more complex ones (see <https://tinyurl.com/32243mjs>) This topic is one of our Dipterists Forum formal objectives.

D. Photography

Clearly we can't hope to conduct detailed reviews but talk to us about short & sweet ones. Brief notes on the following topics would be of interest:

- Experiences with other brands - Canon, Sony etc.
- Macro lenses & macro flash setups (studio and field)
- **Focus stacking.** We've done this before, even run workshops (Stuart Ball, Cardiff Museum) but systems have improved over the years and new software is now on the market (e.g. Affinity Photo). More on this topic is planned for a future Bulletin so share your experiences with the editors soon.
- Flickr - your experiences and comments (read Steve Falk's account in a recent Bulletin)

E. Microscopy & other techniques

Thumb through several Bulletins and discover we've featured a wide range of techniques, too wide-ranging to list them all. The following are current:

- Rearing techniques + trapping techniques
- Pins, pooters & pill boxes - techniques and gear
- **Microscopes** - best specs to look out for and the most economical current buys

No shortage of ideas. Do contact us to help create our next "phenomenal" issue and further our objectives.

Darwyn Sumner, Editor



Recording

The main features in this Bulletin are:

- Open Data
- iNaturalistUK report
- News from various Recording Schemes
- Summary of Expeditions & Projects

Open Data & Libraries

The same sorts of questions keep arising and so an analogy seems worthwhile. A **library allegory** which equates the stored records resulting from your efforts to books which you can borrow in various libraries works quite well as both are concerned with contributing, borrowing and reusing.

The degree of access differs across the range of libraries, as does the quality of the material.

Open Data is the key principle to consider. To qualify as this one has to ask the four **FAIR** questions:

is the data **Findable, Accessible, Interoperable and Reusable**

Donald Smith had a crack at showing this as a pictorial flowchart in Bulletin 93 p 10. saying they were confusing. The pictorial simplification in this account uses the data "silo" symbol plus lock, only the dark green bits count as **Open Data**:

Primacy of the NBN & NBN Atlas

The National Biodiversity Network (NBN) and NBN Atlas platform remain the primary place for the submission, dissemination and discovery of biological records and added-value datasets and services.

The NBN Atlas is the single, central data repository for all sectors seeking to contribute, provide or use biological records and associated information for terrestrial, freshwater and marine environments alike. Biological records should be submitted via an affiliated route or directly provided to the NBN Atlas as soon as possible after their collection.

(SBIF on the NBN website)

1. GBIF



This one has to be at the top, it's the international one. Some countries (sadly not all) automatically send all their records to this silo. It's got everything on it so if you know the name of some exotic foreign beast then you'll find it here. iNaturalist sends all its Researchgrade records there within a week or so and it's a place where you can discover all sorts of country recording initiatives similar to our own NBN Atlas and datasets from foreign museums.

Nature and research organizations from all over the world share their nature data here so that everyone can use it. (Netherlands Waarneming.nl Augustus 2023)

Very easy to use, start by typing "GBIF [species name]" into your internet explorer and one of the top results will take you to their map page. Worth trying on a well-known UK species to see how prevalent it is abroad, try it with *Volucella zonaria*.

Library analogy: World public library - yes there is such a thing

2. NBN Atlas



This is our UK Open Data repository. The "N" stands for Network because we all devised it as a thing of purpose: to set up the FAIR repository of species records for all of us to use. Some of us recollect and were involved in its formation and principles, I counted 6 other Dipterists Forum members at their first conference, one of whom gave a presentation. It's operated by the NBN Trust, a small team who do the administration work to keep the NBN Atlas running smoothly. Find out more at <https://nbn.org.uk/> and if you fancy any of their conferences then do go ahead. Dipterists Forum are members alongside most other wildlife organisations in the country, from BRC through Natural England, Buglife and Local Records Centres to Butterfly Conservation and so on. All part of the Network who have devised and chosen to use NBN to deliver Open Data.

Public library: Fully accessible to all. Better than a public library in fact because you don't have to wait for inter-library loans - you can get everything instantly (well, that's the internet for you)

3. BRC



A much older institution, used to be based at Monk's Wood. It originated from UK government's NERC funding and is a component of CEH (Centre for Ecology & Hydrology)

Read about BRC at <https://tinyurl.com/yne8n2sx> they operate the online recording system iRecord and support a variety of Recording Schemes in a host of different ways (most notably our Dipterists Forum website.) They're also fiercely keen on Quality Control, a principle retained from their very early days. Which is where expert verifiers of our stuff comes in, we volunteers do all that - so please volunteer if you know owt.

As BRC is signed up as an NBN partner they'll not object if I say that their silo is not official Open Data because they ensure that by submitting lots of records to the NBN Atlas. The more verifiers they recruit the more becomes Open Data.

British Library: Material is accessible, just sign in and hunt around. Once you've conducted your study, give the material a thumbs up and off it goes to the NBN Atlas to become Open Data

4. iNaturalist



Only really feasible for images and although all records do soon go to GBIF (Open Data) this bypasses NBN Atlas so records are ideally further processed through iRecord by our verifiers (better QC). This bypass is something the NBNt and partners are currently working to address.

Art Gallery?

5. Recording Schemes



The data silo icons above seem to cover the range of choices made by Recording Scheme organisers. They all start out as grey unknowns, the central band indicates the processing carried out and the lower band their final destination. The third silo icon arises due to the shortage of verifiers on iRecord (e.g. Sciomyzidae) so they simply stay on the BRC silo.

Organisers are able to perform valuable analyses (atlases, status assessments.) They are a variable group as regards Open Data.

Public libraries

British library, University libraries

Private libraries: not achieving Open Data

6. Regional initiatives



A combination of the work of Natural History Societies and the Local Environmental Resources Centre partnerships more or less supporting one another. The former with access to historical material and volunteer naturalists, the latter more focussed on current material, protected species and service delivery. Most regions have diptera experts, we publish the list in the Bulletin

Local branch libraries + Tourist Information shop: direct uploads to NBN Atlas means a lot of this becomes Open Data

7. Museum collections



This rather depends on what part of the world you're from. New World initiatives have been quite strong for some years and they've organised themselves so as to upload collection data to GBIF. Here in the UK we've featured a few initiatives over the years but by and large it's hard to locate datasets originating from specific museums. You'll find some of course, I believe the Coleopterists are doing a lot, Derek Lott's database is on NBN Atlas and I guess that includes historic material of buddies A.R. Wallace & Bates when they collected together in Leicestershire back in the 1800s; Graham Finch is continuing the work here and Mike Bloxham is working on Birmingham stuff.

The subject of uploading UK collection data to Open Data silos has been debated for many years, a good summary of that is on



The tin cans are quick visual guides, they represent data silos and the graphic is split into 3 parts, top bit for source, middle bit is processing and bottom part is destination.

Colour codes: Green for Open Data, Amber for "affiliated route" and grey for unknown

Another oversimplification of course, the real situation, especially recording schemes, can be quite complex

the Collections Trust website at <https://tinyurl.com/4hb3872t> Scottish museums have made good inroads but others have been slower to get going.

Hopefully the DISSCO project will improve the situation; they've got all our legacy collections.

Museums

8. Your records



A wide variety of silos and systems. The Bulletin has frequently addressed this subject area, from recording systems such as Recorder 6 or MapMate through looking after your stuff with good security, backups and archives.

Ensuring that your records become Open Data so that researchers can use them to help conserve them and their habitats is a key purpose of Dipterist Forum - we are after all a consortium of Recording Schemes; dozens of dipterists all willing and able to help you.

Sadly that all-grey silo never achieves the status of Open Data unless someone takes the time to track the records down, it covers many things such as Flickr and other photo sites, corporate media postings, non-recording forums (Diptera.info), museum collections and most publications in journals, with their pre-digital era standards & philosophies.

If any of that material is yours then do help raise their value by sending lists to recording schemes, putting them on iRecord, iNaturalist or even European sites if you fancy your linguistic skills (French: Le mondes des Insectes, Dutch: Waarneming.nl, Danish: Naturbasen, Finnish: Laji.fi etc.)

Your bookshelves

"The way I felt when I finished my creative writing course was just ... indescribable."

Darwyn Sumner

Recording Scheme support

Feedback to the Recording Schemes is important. The organisers have put an immense amount of effort into their specialist groups and they rely on responses from those with similar interests to respond to them in various ways.

So if you've an interest in a group and a wish to get involved then contact them. Helping the Recording Schemes do their stuff is what Dipterists Forum is all about.

Verification

Shortage of verifiers is the main bottleneck to getting records moved from the BRC silo to Open Data on NBN Atlas and the reason for the BDI appeal in the last Bulletin. Martin and I compiled a spreadsheet list of all the iRecord verifiers (see last Bulletin) and the number of those haven't increased since. I also put together a video to show how easy the iRecord job is.

As verifier you work your way through the unverified iRecords in your scheme and periodically Martin will transfer them to the NBN Atlas dataset you've set up to receive them.

Though the expertise we have in Dipterists Forum is considerable and many seem to enjoy having a crack at identifying iNaturalist pictures, iRecord verification is the key to one large Open Data door in the UK.

Do sign up and have a go at something, you needn't be a scheme organiser but you will need the authorisation from them for Martin to add you. Ask me about Sciomyzidae for example and you could double the number of Open Data records in an hour or so.

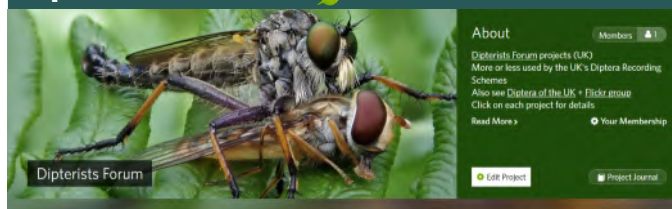
Darwyn, Jane & Martin H.

iNaturalistUK



Schemes in the following accounts with the green birdie symbol have iNaturalistUK projects at the following site:

Dipterists Forum



<https://www.inaturalist.org/projects/dipterists-forum>

In addition to **Recording Scheme projects**, (23/30) all the **Dipterists Forum Expedition projects** are linked on one of the Journal pages. Membership is gradually increasing - do join us.

The site augments the information on the Bulletin back covers.

Growth

Now with 70,000+ records across 25 Recording Schemes. Sorry there's no Hoverflies there but the numbers would be so immense they'd swamp everything else. That project style isn't ideal, I'd have gone for a more equally spaced presentation but iNaturalist prefer to treat it as a competition. You can of course resequence them according to number of species

The Muscidae, Lonchaeidae and Dolichopodidae are the most recent additions but it's worth browsing the groups at either end of the scale.

Joining iNaturalist projects

There are now 47 members of this project, folk who've signed up and can monitor their contribution to our recording schemes because most of their fly pictures will now show a link to our Dipterists Forum project.

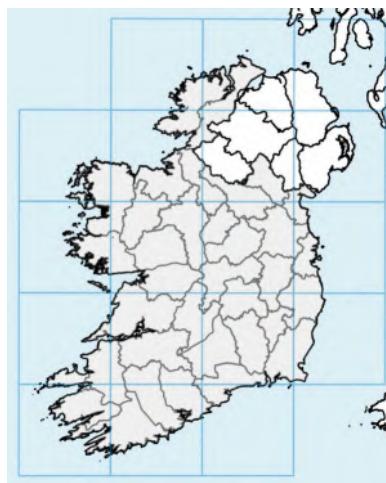
Recording Scheme organisers are urged to join their own project. A representative image on the individual project would be nice too.

DIY projects

An ideal way to start looking at a group not covered by Recording Schemes is to set up an iNaturalist filter. No need to share until you're ready but after that we'll be happy to publicise in this Bulletin. Dipterists Forum is here to help and places no bureaucracy barriers or hurdles - all the way up to a full Recording Scheme.

Irish Diptera

<https://www.inaturalist.org/projects/diptera-of-ireland>



Dipterists Forum's remit (and the diptera checklist we maintain in Dipterists Digest) covers all of the British Isles and consequently includes Eire. Some Recording Schemes see very few records from there, though we've famous dipterists such as Martin Speight in the republic. Take a look at the iNat project to see what's recorded there. We'd all love to hear from you again and see some spots on that map.



NBN Atlas - Open Data

Open Data delays

Recording Scheme organisers will have noticed by now that there have been delays in their records passing from BRC's iRecord silo to the NBN Atlas. No transfers have been occurring since about April this year. In part this is caused by a BRC glitch which resulted in some datasets not being sent to NBN Atlas but the major cause is that the NBN Atlas itself has been closed to further submissions throughout the spring and summer as they are conducting a major overhaul of their system. That's the reason all my verification work on the Sciomyzidae is still languishing on the iRecord silo.

Darwyn Sumner

Records update

Because of the reduction in the increase of Open Data on our Dipterists Forum partner page at <https://registry.nbnatlas.org/public/show/dp172> reported in the last Bulletin I took pains to boost those numbers with a lot of work on various diptera datasets. My target was to pass the 100,000 total; I did enough verification work to achieve that but sadly hit the two glitches above. With luck the numbers will have shot up by the time you read this Bulletin when it will also represent the work of all our other verifiers in a variety of Recording Schemes.

Epoch 3

Some backlogs are currently in the pipeline for the Field Weeks 2003 to 2014. These will have to wait until the autumn due to a heavy workload. In the meantime, if you've any datasets from this Epoch that you cannot locate as Open Data on the NBN Atlas, do send them to me and I'll be happy to process them. BRC have kindly offered to help with that task.

NBN also provide full instructions on how to upload to the Atlas at <https://tinyurl.com/46uhas2x> please ensure they are added to our Dipterists Forum partner page if you do it yourself.

Epoch 4

No change since we reported the status of these datasets in the last Bulletin. The first of the Epoch 4 Field Week datasets (Stirling 2019) are on the NBN Atlas (processed from a dataset sent to me by Martin Harvey from all the iRecord submissions. All I had to do was fill in the metadata form then send it and Martin's iRecord dataset to Sophie at NBN.

Cornwall 2021 is overdue as is the spring Oxford 2022 and now the Norfolk 2022. I've again offered to process them from iRecord datasets so that they'll become available as Open Data Maybe this autumn when NBN Atlas is available for new data.

Expedition iNat Projects

The journal on our Dipterists Forum page has the links to all the expedition projects (and others) that we've set up - <https://www.inaturalist.org/projects/dipterists-forum/journal>

There are a few curiosities there, one is Whitwell Common which wasn't on our formal 2022 list though a few of us did visit it. A guess the reason it was missed off was that land owners couldn't be found; **we own it**, it's one of those rare pieces of common land that no-one's yet got around to stealing from us [bursts into song, "the Diggers", 1649: ... *they were the dispossessed reclaiming what was theirs...*] - sadly unsuccessfully, St Georges Hill from the song is now a private fenced estate, read about it on <https://whoownsengland.org/> Put Whitwell Common on your itinerary next time you are in the area, it's got a cracking list.

Recording Scheme News

Small Acalypterates Recording Scheme

This was bound to be a slow news scheme, especially following that last Newsletter. The iNaturalist project total grew to 687 but most are *Dryomyza anilis* and would barely have had any records had I not sneaked the Opomyzidae onto the filter. You have to hunt around for good stuff, that's a photo of *Diastata fuscata* by Ian Andrews on iNaturalist and two Welsh records of *Aulacigaster leucopeza* by Andy Godfrey on iRecord. I can tell you more about records on that platform when BRC set me up as verifier to the other families. Maybe we can then grow our NBN Atlas dataset at <https://registry.nbnatlas.org/public/show/dr2747>

Darwyn Sumner, Nigel Jones & Steve Falk

Agromyzidae Recording Scheme

 Barry Warrington is severely impacted by the Natural History Museum freezing his Scratchpad website. We spoke a lot about what to do about it all, he's more *au fait* with website stuff than I so look out for his solutions.

His attempt at crowdsourcing proved successful enough (£2,5k/£3k) for him to go ahead with a new style. Pay close attention to his solution: "a fresher, more modern feel to the site".

<https://diptera.info/news.php?readmore=224>

(Ed.)

Soldierfly Recording Scheme

The iNaturalist project is capturing a lot of interesting records, approaching 12,000 now. Soldierflies are a popular topic amongst photographers. Top identifiers of those are Nikola Szucsich from Austria and German Martin Hauser now in USA, followed by Ian Andrews & Sam Rees in the UK. (Ed.)

Hoverfly Recording Scheme

Newsletter #74 in this Bulletin

David Iliff davidiliff@talk21.com

Stilt & Stalk Fly Recording Scheme

 The imminent freezing of this scheme's website by the Natural History Museum resulted in a considerable amount of work. There's a huge number of new distribution maps on there now, fresh UK maps from the latest NBN Atlas update I carried out (<https://registry.nbnatlas.org/public/show/dr940>) with records now standing at 6409. European maps have been redone as points rather than countries (see my Fauna Europaea analysis above.)

An Atlas of World distribution maps for all the Calobatinae are also on the site.

A good deal of tidying up has been necessary too, notably in the area of the bibliography and the cross-linking of papers to taxa. We were given only 6 months notice by NHM of this closure so Scratchpad users have a deadline of 1st September.

Naturally enough, one of the last finishing touches to the site whilst it's still editable is the **Newsletter**. I got issue 5 finished in July. As it's a finished piece of work it occurred to me that I still have a place where I can upload that - so it's also now on ResearchGate at



<http://dx.doi.org/10.13140/RG.2.2.25601.84325>

... where it had had 1 recommendation and 10 reads within 3 days, rising to 50 a week later, and yay! it's now got a DOI and a badge

Darwyn Sumner www.inaturalist.org/people/202372

Cranefly Recording Scheme

Newsletter #41 in this Bulletin

John Kramer john.kramer@btinternet.com

Lesser Dung Fly Study Group

Newsletter #5 in this Bulletin

Mark Welch m.welch@nhm.ac.uk

Sciomyzidae Recording Scheme



Quite a lot (2540) awaiting verification on iRecord when I had a stab at them earlier this year. Dividing the job up into manageable blocks seemed the best approach so I filtered by known and trusted recorders and used the multiple selection mode. Andrew Cunningham was the first batch so his should now be on their way to our Open Data dataset at <https://registry.nbnatlas.org/public/show/dr2518> That stood at 3165 when I started at the end of March.

At one time these would have come through to the Recording Scheme as spreadsheets but nowadays those recorders upload the same spreadsheets to iRecord.

So I worked my way down the list of dipterists I know, bypassing all the pictures and having fun seeing all the red dots appear on the Isle of Man on the map as I ticked away at Steve Crellin's records. One good session took up a morning and the list of outstanding records waiting to be processed was whittled down to 1088.

Two months later though and the news came through from BRC that technical problems meant they were unable to process them during their regular monthly BRC to NBN Atlas transfer in April. They might have been able to process them the following month but NBN were working on database infrastructure and could not process any updates to the NBN Atlas until September.

So whilst this caused us to miss the 100k Dipterists Forum target I aimed for in the green doughnut, all is not lost as evidence of this verification effort can be found on BRC's site.

Still plenty to do, all this season's iRecords plus those I left. If you've an eye for Sciomyzidae then get in touch and we'll arrange for you to verify them.

iNaturalistUK figures are of interest, amongst the top 4 identifiers there we've two top European dipterists, Jere Kahanpaa (Norway) and Jonas Mortelmans (Netherlands.) They never see images simply posted to iRecord - only I see those and I'm 5th.

<https://www.inaturalist.org/projects/sciomyzids-uk>

Not quite so badly affected by the Scratchpad freeze, the existing one by Jonas didn't progress very far. I had planned to set one up but to do it properly would have needed a big effort tracking down all the published papers to create a comprehensive bibliography as I've done with the Micropezids & Tanypezids. There's no such thing as an online tool to collaborate on such a task (iMendeley is the nearest, we've reviewed this recently.)

Newsletter #7 was added as a preprint to Researchgate on 4th August. Download it at

<http://dx.doi.org/10.13140/RG.2.2.35768.11528>

Darwyn Sumner

Change of email address: Ian McLean is now ianfgmclean@gmail.com

Anthomyiidae Recording Scheme

Newsletter #14 in this Bulletin

Phil Brighton helophilus@hotmail.co.uk

Tachinidae Recording Scheme



Chris Raper's Scratchpad is one of those that were set up some time ago and then left alone once completed, so he's been sitting on ice for some time.

A flurry of activity at the end of July from him though, when several of my Tachinid photos on iNaturalist were confirmed by him, clearly preparation for his DF workshop next year. (Ed.)

Lonchaeidae Study Group



Iain MacGowan has got to grips with his iNaturalist project and is now managing it. He tells me "its good to have all the British photos and records in one easily accessible place"

His is another scheme badly affected by the Scratchpad freeze, and the iNat sites could clearly be used for messaging. Visit his and Nigel's site to check on how he's using the project journal.

Empid & Dolichopodid Recording Scheme

Newsletter #28 in this Bulletin

Dolichopodid test keys now on DF website

I have uploaded my keys to dolichopodids on the Dipterists Forum website under the Resources / DF membership area / Keys. You need to be a DF member to access this page. Do please try them out and let me know what doesn't work or is unclear, or downright wrong. I will add a running update of corrections; I have some already! I have not included *Thrypticus* or *Medetera* yet as these include several 'new to Britain' species which I intend to publish formally shortly.

These keys will be published by the Royal Entomological Society in its series *Handbooks for the Identification of British Insects*. For the last two years I have missed my own deadline, so don't hold your breath.

Martin Drake martindrake2@gmail.com

Muscidae Projects

Recent Bulletin reports have prompted Ian Andrews to take up the iRecord verification challenge:

iRecord verification of Muscidae

Having found a couple of female *Musca domestica* basking in the sun on tombstones in a churchyard in East Yorkshire in early February 2023, I was intrigued to see how widespread the recent records for the species were. NBN atlas gave some idea but, as usual, I then went to iRecord and did a filter search for the species there. I was immediately struck by the records with photos...few of which looked much like *Musca domestica*.

At this stage, I started looking at other 'easy' muscids on iRecord and could see that there was really a need for some simple thinning out of obvious misidentifications. I am no expert on the family, but have collected them for over 10 years and I feel confident enough to deal with the common species, so volunteered to verify them on iRecord.

After a prompt authorisation to verify, I looked at the 293 records for *Musca domestica*, specifically those with photos, and immediately that first night was able to redetermine or reject 33 records. Those I changed from *Musca domestica* (mostly rather distant photos, or lacking detail) were determined as ...

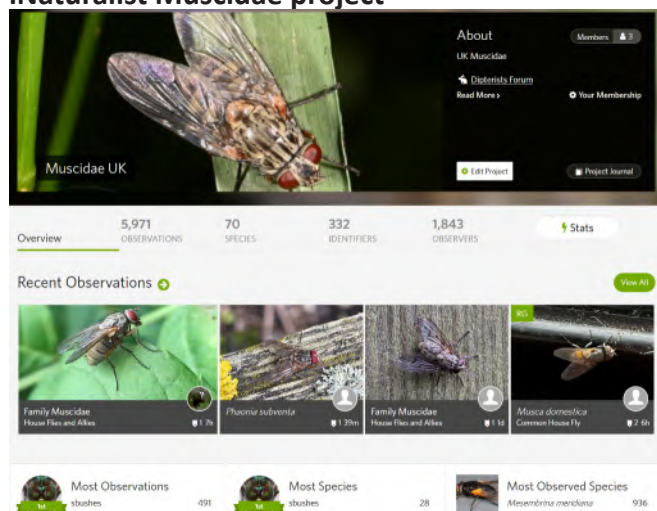
Anthomyiidae ♂	5
Anthomyiidae ♀	3
Calliphora ♂♀	6
Calyptatrae indet. ♀	2
Fannia lustrator ♂♀	3
Musca autumnalis ♂	2

Muscidae indet. ♂♀	4
<i>Phaonia</i> sp. ♀	1
<i>Phaonia subventa</i> ♂	1
<i>Sarcophaga</i> ♀	2
<i>Siphona</i> sp.	1
<i>Tachina fera</i>	1
Tachinidae	2

I shall soon start looking at other species within the family and once I have gone through those with photos, I shall gradually start on familiar species from known recorders. I only intend to deal with species I know from my own collecting, and I shall always prioritise my main interests on iRecord in Heleomyzidae and Symphyta, but I hope it will be felt to be a useful contribution. Hopefully, at a later time, someone will step up to deal with more tricky species within what can be a difficult family. I do think that it is important that we encourage those who take the time to add their sightings to iRecord and so I hope that my small contribution to verification here will be appreciated.

Ian Andrews syrphus@hotmail.co.uk

iNaturalist Muscidae project



I then set up an iNaturalist page at <https://www.inaturalist.org/projects/muscidae-uk> where I discovered that photographers are very keen on the Muscidae, well over 5,000 images with *Mesembrina meridionale* being the most frequent (and the only one I know) Busy “verifiers” on there include Ian, Sam Rees and two Austrians. Note that anything raised to ResearchGrade there joins the iRecord verification queue (and gets onto GBIF.)

No Recording Scheme yet ?

So far it's not a Recording Scheme, no expert to discuss finer points, no RS page on our website and no dataset on our DF partner page but BRC has lots of verified records available.

Martin's OK with sharing something with NBN Atlas but I agree with him that we shouldn't call it “Muscidae Recording Scheme” until there is one. Exact nature yet to be determined - see what happens next:

Many thanks to all involved in setting up these projects and in discussions: Ian Andrews, Martin Harvey, Rob Wolton & James McGill

Darwyn Sumner

ResearchGate + Scheme Newsletters

The topic of using ResearchGate to upload your material (usually DD articles) has cropped up frequently in recent discussions. Some people use it a lot, ranging from formal peer-reviewed material to preprints which are never intended for printing in a journal (e.g. lengthy atlases)

With a bit of care over presentation though, there's no reason why

Recording Schemes should not use that preprint option to upload their Newsletters. It offers some benefits, a worldwide readership, you get a DOI (= permanent online storage and a link you can send to your contributors), readership numbers can be tracked and you might get recommended or even cited. If the informal nature of your newsletter worries you then track mine - I seem to have got away with it. I talked to David Iliff about the idea too - he's thinking about it seriously for the Hoverflies.

And if your Newsletter gets printed in the Bulletin then you can raise your preprint status to actual publication months after you first upload it - no need to wait for us before distributing it to your contributors.

Best way seems to treat it as a preprint, I've tried it as a publication without success as Dipterists Forum Bulletin isn't in their list of publications, doing it as a preprint ensures you get a DOI

News & views

That's only about 1/3 of our Recording Schemes. If the others have news and haven't enough for a newsletter then drop a line to the Bulletin editors and we'll add your snippet here.

As for **recording methodologies**, each Recording Scheme is perfectly at liberty to choose their own preferred system as it's they that are having to deal with incoming records. One system does not necessarily suit all, for example the Hoverfly Recording Scheme has focussed on corporate media methods and now has a Youtube video of a system they'd like to be adopted. Some schemes are happy with desktop systems and spreadsheets or just a simple email, others with iRecord and yet others prefer iNaturalist (for pictures.)

Please take note of the preferred system of each one, help keep them happy as they do an amazing job.

Other Projects

Manchester Entomological Society

Though the MES folded in 1991 they had had several recording projects operating: Odonata and Diptera we know for sure and perhaps Hemiptera and parasitic hymenoptera. Fortunately good care had been taken of the records and a consortium of old members came together and managed to upload some 12,088 Diptera records to NBN Atlas this winter.

They're to be found on Dipterists Forum's partner page at <https://registry.nbnatlas.org/public/show/dr2814>

If you were with us during our many expeditions up until 1996 or participated in the MES surveys then this dataset will feature your material and that of many of our friends up north.

Steve Falk project

Quite a lot of these have been done now, in addition to the groups previously mentioned (Micropezids & Tanypezids, Sciomyzidae, Conopidae) there's a batch of Smaller Acalypterates that have been digitised and are awaiting a thumbs-up from Steve and for BRC to assign iRecord verifier status to the scheme organisers. Phil Brighton also reports he's successfully digitised several thousand Anthomyiidae but as yet no indication of numbers or progress in our undertaking to raise these to Open Data on NBN Atlas.

If you are still interested in working on these, the methodology, detailed instructions and source files are still accessible at <https://micropezids.myspecies.info/node/307> Plenty more still to do.

Darwyn Sumner

Collections

Hand-rest for insect drawers & boxes

Ever had trouble taking out that specimen in the middle of your crowded insect box or drawer? Here's the answer – a simple hand-rest lying just above the box which you can move to the right place. Mine is made from scraps of wood lying around in the workshop. My hints are to make it high enough that it does not catch any long protruding pins and will work for both boxes and drawers, and wide enough for both. The actual rest must be stiff so you don't feel it's about to bend, or worse, when you lean on it; mine is 12mm thick. Like all inventions, someone got here before me; artists call their equivalent a mahl stick (thanks to Richard Lane for this information).



Martin Drake

Crystal Boxes

The traditional crystal boxes previously sold by Watkins & Doncaster have long been discontinued by Stewart Plastics. Having tried a few alternatives, I have found a good substitute on eBay. It is a square box of the same material measuring 89mm x 89mm x 25mm but there are alternative sizes by the same seller who is called superkun-05 and the listing number is 154352593361. Just type the number into the eBay search bar and it will come up. I have made two orders and they both arrived quickly. The second order had four boxes chipped but I was given a generous partial refund. The pic below shows how the traditional box compares with the new box....



Andrew Cunningham

Specimen boxes 38 x 31 x 19



Obtainable through the earth science suppliers Earthlines at <https://earthlines.com/product-category/storage-display/specimen-boxes/> + DIY grey plastazote

Originally designed for the display of geological specimens but also used a lot by jewellers. These are very handy for single specimens, either for photography or for passing single specimens around safely (with labels) in our workshops. I used them a lot at Norfolk and gave Jane a batch of them for use at the Swansea meeting, I hope you found them useful.

The company does other sizes but not ones like Andrew's find. That's rocks for you!

Specimen stages

These were devised mainly with the idea of stacking photography in mind but would work equally well under microscopes:

Hemispherical stages (concentric)



Left: allows a pinned specimen to be fixed vertically and centred

Centre: permits small specimen boxes (above) to be rotated and tilted to a limited extent

Right: allows a pinned specimen to be fixed horizontally and centred

Materials: Christmas bauble spheres (Works), grey oasis, grey plastazote (child's playmats), plastic plant labels, nut & bolt, glue, double sided self-adhesive craft pads, foam board & soft foam sheets from craft shops. Old lens hoods etc. as bases

Tools: Saw, files & drills, sharp scalpel, pastry cutter

Ball & Socket stages (eccentric)



Brass drawer knobs on copper pipe offcuts, cost <£1. DIY Wooden stand to help keep everything steady for stacking photography.

Darwyn Sumner

Photography

Owing to the considerable interest in this subject, earlier this year I began a compilation of photography topics. By the time it had grown to 10 pages it became clear that this had to be a supplement or even a whole new magazine title, way too big and too specialised for general Bulletin interest. The following are therefore just a handful of the more relevant items, contact me if you want the whole (unfinished) supplement or would like to add to it.

Flickr



Our Dipterists Forum Flickr group (<https://www.flickr.com/groups/14798812@N20/>) grows steadily. We've now 21 members who've provided 198 photographs. As we'd anticipated, folk are just uploading their most amazing shots making it a gallery well worth exploring. Because of the way Flickr works you get to see what gear people are using, the trusty Olympus TG-5 features strongly from Ian Andrews and Sam Thomas. [iNaturalist tells you too, click the "i" on the image]

Gear

We've featured the Olympus TG-5 in previous Bulletins because so many dipterists seem to have one. The new TG-7 (£499) features GPS so your images get geotagged in the camera (ideal for iRecord & iNaturalist posting); left on it's a power drain but now you can recharge via a USB and power bank. Both Ian and I have upgraded our Olympuses to DSLRs (4/3) in order to use the famous M.Zuiko 60mm f/2.8 lens. If we knew of a few other users then it'd be worth an article.

If you have specific enquiries regarding equipment then it's hard to beat DPRReview. On this site at <https://www.dpreview.com/> you can not only hunt down reviews (e.g. TG-7) but it's also got a forum where you can have a grumble or ask questions. Beware though, rough boys play there.

Macro flash in the field

I raised this as a topic on the iNaturalist Forum at <https://forum.inaturalist.org/t/macro-flash-photography/42849>

The response was substantial with a wide range of valuable resources, advice and experience contributed by naturalist photographers across the world. Hard to single out responses but one point that was well made is that older pre-mirrorless DSLR cameras can now be obtained at very low prices, try MPB or Wex in the UK.

Tabletop macro setups using tripods

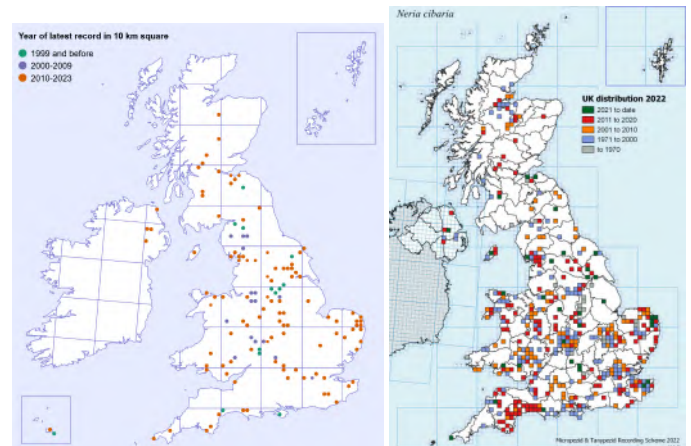
A complex topic best left to a supplement. Simply put though, if you've a decent macro lens plus bits and bobs like extension tubes and close up lenses then with a bit of good lighting plus a desktop tripod and focussing rail, you've got yourself a low power microscope. Use some form of concentric stage and I'd also advise looking into "tethering" in which you connect camera to computer to see it all live on the big screen.

Darwyn Sumner

Biogeography Distribution Maps

Used extensively by Recording Schemes over the years these are to be found in their newsletters or atlases. A variety of techniques have been used.

SPOT THE DIFFERENCE



Deep blue sea: the QGIS map uses EEA standards (Lillethun, 2011) = RGB 220,240,250
Outline map files of the Channel Islands are still sought by us amateurs.

Both the above owe a great deal to the work of Rich Burkmar. The BRC map (left), developed as an online tool in iRecord by Rich, can be obtained at iRecord. The QGIS map (right) uses Rich's mapping tools (FSC's TomBio) and has to be constructed by the user from a variety of freely available map files plus a Recording Scheme's collection of records (NBN Atlas + desktop applications' datasets); this is **all** the Open Data, a major objective of Recording Schemes (see "Primacy of NBN" box above)

Beware how you use or quote such maps, the BRC silo only has some records (232) whereas the NBN Atlas has them all (1,402), including many datasets which the BRC silo does not contain such as all our Epoch 3 field week datasets. Currently NBN Atlas can easily be interrogated for a map and they plan to develop an improved version of a "publication quality" version along the lines of BRC's.

There are other methods of producing such maps, Laurence Clemons has put together some excellent atlases using DMAP which you can find at <https://dmap.co.uk/index.htm>

Though Recorder has some basic mapping functionality its "mapper" was never designed to produce publication quality maps. Best recourse if you use Recorder is to output its records to files then use QGIS (+ TomBio tools) or DMAP to make pretty maps.

Security - backups

Reviewing the measures you take to ensure the security of the data you keep on your PC is something that's worthwhile every now and then. The sort of material will range from your precious photographs through collections of downloaded pdfs and, for Recording Schemes all their data and perhaps even GIS resources (as above). I've also got all Bulletin materials.

They need to be backed up by some sort of application. I've tried several in the past but a current favourite is Acronis Cyber Protect Home Office. Just get one or two removable hard disks (or use their cloud) and set it up to periodically backup parts of your work to those. For additional value Acronis now adds protection from ransomware attacks, malicious files & websites and includes a virus scan.

Subscription-based of course and not a trivial cost but nor would be the loss of your data.

Darwyn Sumner

Open Access

A mass walkout by the entire board of a science journal published by Elsevier hit the Guardian news recently (7th May <https://tinyurl.com/2s3cevhm>) In protest at the greed of the publishing giant whose profit margins outstrip Apple, Google & Amazon within an industry that increased its income by 4% in 2022 to a whopping £6.9 billion.

The start of a rebellion we hope for a practise which, whilst making some publications Open Access, charges academics enormous fees (APCs) for a research paper to be published.

"Elsevier preys on the academic community, claiming huge profits while adding little value to science."

(Prof. Chris Chambers, Cardiff University)

A discussion on Researchgate by Mwemezi Rwiza at <https://tinyurl.com/m84kkhnt> addresses APC (article processing charges) It's a system adopted by some journals to generate the income required to cover publishing costs. This is a fee to be paid by the author, the author's institution, or their research funder. For a dipterist tracking down published papers this might be fine if the article subsequently becomes Open Access but such papers are restricted to topics where the author has the cash. APC is not for us, there's no money anywhere, let us know if you know different.

There are other independent academic publishing companies such as Pensoft which publishes the *Biodiversity Data Journal* (Editor-in-chief: NHM's Vincent Smith.) They'll publish things like "single or multiple species observations" much like our Dipterists Digest does but this could incur a €100 APC charge instead of being free in Dipterists Digest. An Elsevier article however could set you back £2,700 to contribute (or £100s to read ebooks) according to Guardian's Anna Fazackerley who indicated that researchers tolerate these charges because they want to publish in prestigious journals. An unscientific incentive given the primacy of the amateur naturalist over the professional in our sector.

Dipterists Digest is just as prestigious, and **Open Access** after a little delay for membership benefit purposes and **APC free** (see <https://dipterists.org.uk/digest>).

If you wish to check which journals have APCs then try <https://www.doaj.org/> it won't give you detailed charges but if you can find the journal first then tick the "without fees" box you'll get your answer (try "biodiversity data journal") DOAJ is a non-profit organisation and it doesn't list every journal - yet.

Newsletters

How many newsletters are you signed up for? You can receive a number of them via email. Particular favourites of mine are:

- Waarneming.nl (in Dutch)
- Fly Times (North American Dipterists Society)
- NBN News
- NFBR (National Forum for Biological Recording)
- ALERC (discontinued, but website has good resources such as Annual Reports)
- BRISC (Biological Recording in Scotland) <https://www.brisec.org.uk/>
- TVERC (Thames Valley)
- GIGL (Greater London)
- NBIS (Norfolk) - very recently

Perhaps you've favourites of your own, your region's Local Environmental Records Centre maybe.

Do let us know, there's always a chance that some diptera topic might pop up in their newsletter.

Literature

Palloppteridae

Ozerov A.L. & Krivosheina M.G. 2023. To the fauna of Palloppteridae (Diptera) of Russia. Russ. Entomol. J. 32: 2–7. (on Researchgate)

Open Data movement

The following articles provide background reading on the subject of Open Data

Nehra S.S. 2023. Socio-technical challenges and the role that librarians play in boosting the Open Data Movement in the modern digital era. (<https://tinyurl.com/y7cjur44>)

Jones M., Barbara S., Schildhauer M. & Barbara S. 2011. Challenges and Opportunities of Open Data in Ecology. Science (80-.). <http://dx.doi.org/10.1126/science.1197962>

Chavan V. & Penev L. 2011. The data paper: a mechanism to incentivize data publishing in biodiversity science. BMC Bioinformatics. 12 Suppl 1: S2. <https://tinyurl.com/4tsesjv2>

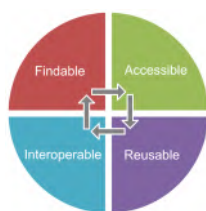
The Nehra (2023) article provides a well-written introduction to the concept whilst the Jones (2011) article shows how ecologists viewed the importance of Open Data over a decade ago.

We've detailed some of the issues in our feature (above), backing up the NBN appeals and their explanation of FAIR principles at <https://nbn.org.uk/news/fair-data-principles/>

Fair Data principles

Whilst on the hunt for some kind of graphic to illustrate FAIR principles I came across a presentation on this subject by Gareth Knight of the London School of Hygiene & Tropical Medicine and a graphic along the lines below.

His is a science sector distant from ours (though not if your interests include dipteran disease vectors, myiasis, parasitology etc.) but I was pleasantly surprised how much common ground there was in the first few slides of his presentation at <https://tinyurl.com/2jy6rje> Unless you've a medical publishing background it then becomes rather irrelevant to us.



Elaborating on those sectors in the graphic is really something for a conference presentation, the easy bit to outline is the **Findable** section where we publish Open Data to NBN Atlas and, if it's a particular dataset (or download) then we can provide a pointer to a persistent url such as a DOI. The tricky bit is the **Interoperable** which requires a knowledge of how to use Darwin Core format. Expanding on the other bits is something best left to NBNt partnerships (see link above) or maybe one of their conferences.

The medical profession have been up to this sort of stuff for many years now. We've had the infrastructure in place for it in our biodiversity informatics sector ever since the early days of the internet but our publishing arms are slow to take it on board. Unsurprisingly, GBIF themselves take an interest in FAIR sharing and Daniel Noesgaard from their Communication team took part in an online session to explain how GBIF tracks literature citations of GBIF data. His again is a medical background but he is involved in broader initiatives which led me to the following useful document:

Sansone S., Mcquilton P., et al.. 2018. FAIRsharing , a cohesive community approach to the growth in standards , repositories and policies. bioRxiv. 1–28. <https://www.biorxiv.org/content/10.1101/245183v2>

Somewhat technical as a general read but as with all such things the abstract and introduction provides useful concepts & summaries. One worth taking away is ...

Nevertheless, their uptake by the research community, however, has been slow and uneven

If you log on to that FAIRsharing website (<https://fairsharing.org/>) and explore a little it's possible to track down the Open Data FAIR policies of various publications. So PLOS Biology are in there with their concise one linked at <https://tinyurl.com/m7j7hu5> so too are Nature and the European Journal of Taxonomy, sadly no sign of Zootaxa or other favourites.

Dipterists Forum do some sharing, we could legitimately register and add our name to that FAIRsharing list; it does include societies.

Data validation & data sharing

Turnhout E., Lawrence A. & Turnhout S. 2016. Citizen science networks in natural history and the collective validation of biodiversity data: Data Validation in Natural History. *Conserv. Biol.* 30: 532–539.

This article is to be found on Researchgate at <https://tinyurl.com/bddyrzn7> and is well worth a read for anyone interested in recording. It's even got a reference to a Trevor James presentation at an NBN conference in 2005 which I attended.

This pairs nicely with ...

Ganzevoort W., Born R.J.G., Halfman W. & Turnhout S. 2017. Sharing biodiversity data: citizen scientists' concerns and motivations. *Biodivers. Conserv.* 26: 2821–2837.

... which analysed motivations, attitudes to Open Data and data sharing etc. amongst Dutch volunteer biodiversity recorders (see <https://tinyurl.com/ykhuxatz>)

This is an extremely valuable social document, packed with many observations and quotes relevant to the aims and objectives of Dipterists Forum and motivation of our members. Hard to pick on just one quotation in this issue but since I've penned an article above advocating the primacy of the amateur naturalist over the professional this one is my current favourite:

volunteer or enthusiast natural history research is actually older than its professionalised counterpart

The report is based upon a survey conducted on recorders so interestingly there are actual figures underpinning their conclusions on issues we've discussed on several occasions.

Similar studies have been conducted in the UK but this Dutch one has the information all in one neat package.

20 years ago

Fascinating stuff in Bulletin 57 back in 2004 when I worked with NBN's Trevor James and BRC's then CEO Mark Hill on aspects of the work of Societies and Schemes together. Looks like I've been pursuing the remit of our subgroup ("technical and resources") ever since; these days without the support of the much-missed Trevor or the same close association with BRC. Those were our heydays, well worth a read to compare those ambitious projects to where we are now.

Darwyn Sumner



Photographer's assistant with Stuart Ball & Jon Cole 2012

Books

Nothing on the subject of Diptera this time although there will shortly be an RES handbook on the Dolichopodidae by Martin Drake. You can check this out now on the Dipterists Forum website and if it's published in time for the next Bulletin then a brief review would be appreciated.

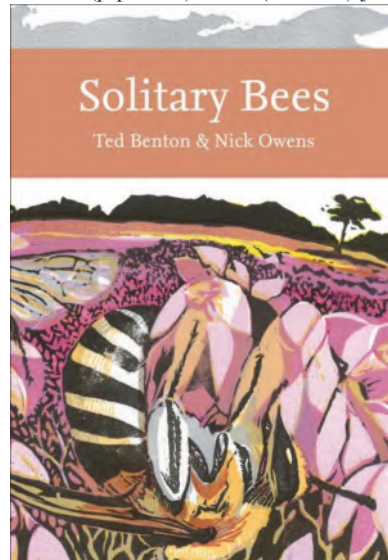
New Naturalist series:

In the meantime entomologists (and ecologists) have recent books from the HarperCollins New Naturalist series to consider:

Solitary Bees (#146)

Ted Benton & Nick Owens (2023)

£26.99 (paperback) £46.99 (hardback) [Pemberley Books]



What is your favourite New Naturalist book? Mine was always the 1960 *Dragonflies* (#41) by Corbet, Longfield & Moore. Since then we've been on the lookout for titles in the same series on other entomological subjects which provide the same level of in-depth treatment. They've been continuously coming and this one deserves a place on your shelves alongside other classics you may have collected over the years.

The introduction is impressive and informative, covering the history of the development of George Else's book, test keys from which encouraged many entomologists to begin to get to grips with identification. Also Steve Falk's field guide backed up by his photographic gallery on Flickr and later the publication of Else's *vade mecum* in 2018. BWARS was formed during this period.

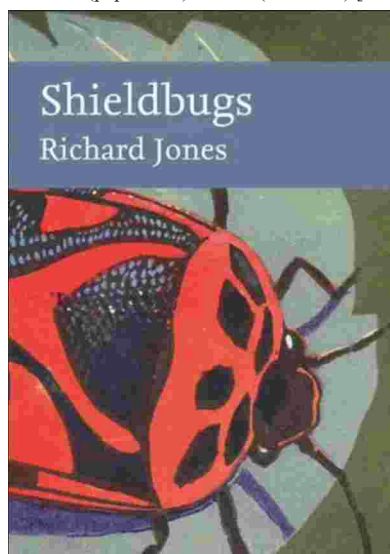
The first run-through takes you through the seasons, briefly describing the groups from our 240 species you are likely to encounter. Following this we get into detailed features of each of the groups. Chapters on sexual behaviour, life-cycles and social behaviour follow, after which there's extensive information relating them to flowers. The parasite and predators chapter is one to dip into for us dipterists (Anthomyiidae, Sarcophagidae, Bombyliidae, Conopidae & Drosophilidae) and of course bees (cuckoo) themselves get a close examination. Palaeontology and related topics then get treated, bee origins brought up to date with biogeographic range changes and causes. Finally ecology and conservation get a sound treatment. There is a checklist of all the UK species in the book but if you're intent on studying the Families and species more closely then you'll need to pair this up with the Else & Edwards book or the Falk & Lewington field guide. For related New Naturalists try #98 *Bumblebees* by Ted Benton (an update of #40 by John B. Free & Colin Butler from 1959) and *The Pollination of Flowers* (#54) by Proctor & Yeo. Don't forget that FSC do a simple pictorial chart too.

Bees Wasps & Ants Recording Society (BWARS) <https://bwars.com/>

Shieldbugs (#147)

Richard Jones (2023)

£26.99 (paperback) £46.99 (hardback) [Pemberley Books]



A nice little group if you've never bothered much with them before. Both Joyce and I recollect a Lancashire Ento. Soc. lecture on them by Steve Judd many years ago. The British list now stands at 79 species, so they're quite doable: the message we took away from Steve's lecture.

Irresistable too to photographers out hunting flies.

To gauge how many I'd snapped I set up a quick iNaturalist filter, a little trickier than usual as you've to know to include

Acanthosomatidae + Pentatomidae (true shieldbugs) then Coreidae (squash bugs) and Rhopalidae (scentless bugs) but the book is so well organised I went straight to the page that told me all that. In the filter I discovered 25,769 records across 48 of those species; somebody knows their stuff because 97% of them are identified. I'd just 4 species but it's a start, I'll try to pay more attention now that I have an excellent guide on where and what to look out for. [<https://www.inaturalist.org/projects/shieldbugs>]

This book differs from the previous one, the manageable number of species means that there's room for an identification key followed by detailed descriptions of all the species and a guide to which plants you're likely to find them on. There's also



Comrie 2019

a page detailing shieldbug-related websites which includes mention of iNaturalistUK, iRecord, iSpot, NBNAtlas and the Recording Scheme's website at <https://britishbugs.org.uk/>

Ecology & Natural History (#143)

David M. Wilkinson (2021)

£27.50 (paperback) £47.50 (hardback) [Pemberley Books]

I gave a brief mention of this in Bulletin 93. Since then it's been reviewed by many others, notably by Mark Avery at <https://tinyurl.com/mr3rb3s4>

Most of us are familiar with the New Naturalist series and have collected a few, the second-hand booksellers at the recent BirdFair in Rutland had plenty for sale. For the dedicated collectors HarperCollins sell a book about collecting this series (Tim Bernhardt, Timothy Loe, 2015, *Collecting the New Naturalists*.) Lately they've stopped numbering the books on the spine, the most up to date list I found was at https://www.wikiwand.com/en/New_Naturalist_series#Main_series but even they've not got the latest Shieldbugs title listed yet.

Though we've all no doubt got our favourites we've yet to see one on Diptera; maybe our time will come. [*"Diptera: Evolution in Time and Space"*, *"Diptera: Ecology & Life-histories"* etc.]

Naturalists & other scientists:

There are interesting books about famous naturalists that I have recently acquired:

Radical by Nature: The Revolutionary life of Alfred Russel Wallace

James T. Costa (2023)

£17.32 (hardback)

There have been many biographies of A.R. Wallace, one could be an obsessive collector but this has had good reviews so I hoped I'd learn more about this famous naturalist. Though the writing style can be a little confusing due to the American writer's perspective (do you know what herps and dups are?) the story-telling is good and focusses on the kind of natural history detail that a naturalist would want to read. Though Wallace's background was singular, some of his early experiences may be familiar to us naturalists. In particular his association with Neath

Though the story-telling is pretty good as one would expect from a skilled biographer I was disappointed to a little extent by the lack of background illustrations. When we reach the part where we follow Wallace's travels as he discovers the biodiversity differences either side of the Wallace line, you need to have a superb grasp of the geography of the region as he rattles off the names of islands. Get your atlas out here.

Horizons A Global History of Science

James Poskett (2022)

£12.99 (hardback)

Who are your favourite historical scientists? Mine are mainly explorers and naturalists, ranging from the cobbler Thomas Edward, through Wallace to Humboldt but I may have to revise my list after reading this book. The Aztecs were masters of the natural sciences and though we think of lots of early science as being lost, a lot of this knowledge was absorbed by their supercedents before their civilisation fell.

The above are first impressions and a good deal of entertaining reading remains for the winter months.

If you've found anything of interest then do get in touch with the editors. There are still many older classic Diptera books we've not reviewed yet and newer members might come across these secondhand, so give them an impression of how useful you find them.

Darwyn Sumner

Members

Membership Matters

By mid-July 2023 we had 462 paid-up members and 390 subscribing to the Dipterists Digest. We have received new subscriptions from 28 people and 2 resignations. Reminder notices were sent out at the start of June and this prompted a quite a few payments but we are still down on the end of 2022, despite new members joining. Sending out reminders is a time-consuming process, however, and we urge all members to pay their subs in the January-March period each year so that we can plan print runs of our journals. We send early in the year publications to all members who had subscribed the previous year as there are so many late subscribers. I am happy to answer any email queries about subscriptions if you are not sure you have paid.

Regrettably, we will have to increase subscriptions from 2024 as printing and postage costs now exceed our basic subscriptions. We are very grateful to the Biodiversity Records Centre for their continued handling of postage of our bulk mailing of the Bulletin at no cost to us but we do cover the cost of postage for late paying and new members. To offset some of the increased costs we will be offering the Bulletin in pdf form only at no increased charge from our current rates in the UK. We will also be bringing the overseas pdf Bulletin charge in line with the UK as there is no additional cost to Dipterists Forum. At present we have decided to keep the Dipterists Digest as a print-only publication. This is a peer-reviewed scientific journal containing papers on all matters Diptera in Europe. It also contains additions and changes to the UK and Ireland checklists, news of new species and often valuable identification features.

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

Dipterists Forum Subscription Rates 2024

Regrettably, we have had to increase our subscription rates from the 2024 subscription year. This is necessary to cover increased printing and posting charges. The last rate increase was in 2014. We recognise at a time of high inflation that members do not need another price increase and we have decided that we will offer pdf files for the Bulletin at the current rate. The rates for 2023 will remain unchanged.

Members and Subscribers are reminded that subscriptions are due on 1st January each year. Our new rates will be:

	2024	2023
UK rates:		
Membership + hardcopy Bulletin	£12 pa	£ 8
Membership + pdf Bulletin	£8 pa	n/a
Membership + hardcopy Bulletin and Dipterists Digest	£26 pa	£20
Membership + pdf Bulletin + hardcopy Dipterists Digest	£22 pa	n/a
Overseas rates		
Membership + hardcopy Bulletin	£18 pa	£14
Membership + pdf Bulletin	£8 pa	n/a
Membership + hardcopy Bulletin and Dipterists Digest	£30 pa	£25
Membership + pdf Bulletin + hardcopy Dipterists Digest	£26 pa	n/a

At present we are not offering the Dipterists Digest in pdf format

At a glance - (Ed.)

Membership inc.	Bulletin	Dipterists Digest	2024	
UK	Hardcopy	No	£12	
	pdf	No	£8	
	Hardcopy	Yes	£26	
	pdf	Yes	£22	
Overseas	Hardcopy	No	£18	
	pdf	No	£8	
	Hardcopy	Yes	£30	
	pdf	Yes	£26	

Subscribers who opt for pdf versions of the Bulletin will be able to download their copy from dipterists.org.uk when it becomes available. (approximately mid-February and mid-September) Pdf files will not be emailed to subscribers but a notice of publication will be placed on the website

Members who pay by standing order will have to amend their bank instructions to pay the new rate for 2024. If you do not wish to change your bank instructions via online banking, a pdf file of instructions can be downloaded from the website. Please sign it and send directly to your bank.

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.

John Showers

Membership benefits

All clubs have some costs, cast your eye over our last financial statement for details where you'll see what they are and how your subscription covers them. The kindness of others also means we've some income to augment those costs. Businesses, charities and community interest companies incur costs, we minimise these by being a club - no paid employees, just volunteers.

The main benefit you receive as a member of Dipterists Forum is the latest newsletter (this Bulletin) which tells you about everything we are currently doing i.e. all the other benefits (older Bulletins are available to anybody - Open Access)

To keep your costs down we are currently offering a **"torn and soggy"** discount on the Bulletin (that's how Adrian Plant gets his copy in Thailand), you can save us an envelope, BRC a stamp and you £4 by specifying pdf only for your Bulletin.

Subscribers who opt for pdf versions of the Bulletin will be able to download their copy from dipterists.org.uk when each issue becomes available.

We can't say exactly when that will be, Jane observes *"electronic versions should be available on the members-only area of the website in mid-February and mid-September and that members should check the website around then"*. We have also modified the News section on the opening page of our website to advertise its availability promptly.

Ed

Fly zone

Contacting us

The inside front cover of this Bulletin has all the contact details you should need.

Members

See John Showers instructions above if you want to join and support us (**and get copies of this Bulletin.**) Don't forget we've also a Forum on our website where you can raise topics.

Logging on to the DF website

To log onto our website for the first time you need to use your e-mail address as the login username. The site will then send you a temporary password that you can use to log in. Once logged in you should change your password.

If you do not have an email address or if the one we hold is now out of date you will need to email me or Martin Harvey to set it up for you.

John Showers

Meetings

Watch for announcements on our website. In particular, since some of them are to be held online, look for details of how to participate.

www.dipterists.org.uk/

We invariably organise both a workshop in February and a Summer Field meeting each year. Occasionally, shorter Spring and Autumn meetings may be held too.

Meeting participants will be emailed with details once booked.

Contributing

Bulletin

For Bulletin related matters, information or sending articles for the next issue, then

email both Darwyn Sumner & Judy Webb

[Include "bulletin" in the title so's we don't lose them]

We'd also much appreciate your feedback.

Mark Welch wants to know about anything **conservation** related and Jane Hewitt needs to be kept informed about Diptera related issues in order to do her Secretary stuff.

Deadlines

Spring Bulletin - 31st December (-7)

Autumn Bulletin - 31st July

Newsletters: Camera-ready copy only please (-1)

Dipterists Digest

Contact Peter Chandler

Recording Schemes

As for flies in particular, bring those to the attention of the Recording Schemes. Contact details are on the back pages which can also be downloaded as an interactive pdf so that you can follow all their links to websites, recording initiatives and newsletters. For more recent Recording Schemes see recent Bulletins, the iNaturalist site below or our website.

Photographs

Photographers may participate by uploading their images either as records to the sites preferred by each Recording Scheme or as set up for our expeditions or simply to our Flickr group. Our additional iNaturalistUK initiatives are summarised at

<https://www.inaturalist.org/projects/dipterists-forum>

Bursaries

The Dipterists Forum holds an annual weekend course, covering a specific family of flies in detail, at the Preston Montford field studies centre near Shrewsbury. The 2024 course will be about Tachinid flies. It will run from Friday 9th to Sunday 11th February.

The Forum also has annual residential Summer field meetings lasting for one week. The 2024 meeting will be based in Lancaster from the 22nd to the 29th June. Attendees spend their days in the field collecting and observing flies and evenings in a laboratory where they can identify their catches alongside other dipterists. Beginners are made very welcome and can gain valuable knowledge from more experienced members.

We offer a small number of bursaries for each of these events, awarded on a competitive basis. Bursaries cover half the total cost of the course/meeting (full board for the Preston Montford meeting and half-board for Lancaster). If you would like to apply for a bursary for either (or both) of these events please send your application by e-mail to me, John Mousley, at johnsally.mousley@ntlworld.com.

Your application should say what you hope to gain from attending, how you would expect to contribute to the Forum's aims of the study, recording and conservation of Diptera, and why you would benefit from financial assistance. If you are currently involved in a research programme, please include brief details. We will be looking for evidence of enthusiasm and interest in flies. Preference may be given to those who have not received a bursary previously. Applications should not exceed 300 words. Successful applicants will be expected to write a short account of their experience for publication in the Forum's Bulletin.

Applicants must be members of the Dipterists Forum at the time of their application. The closing dates for applications are Friday 1st December 2023 for the Preston Montford course and Friday 16th February 2024 for the Lancaster Summer field meeting.

John Mousley



Geologist in 2007 with Rita, Ken & Chris



Flesh Fly - Sarcophaga



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NO
insectinction



Ever helpful on field
meetings, 2018

Treasurer's Report

Dipterists Forum accounts for the year ending 31 Dec 2022

As a result of sterling efforts by the Membership Secretary to chase up late payers last summer, the subscription income has increased from last year, though not quite to the level seen in the first pandemic year. This rise has not quite offset the reduction in donations which always tend to fluctuate, including the royalties from the Hoverfly WildGuide which are so kindly passed on to us by Roger Morris and Stuart Ball.

The 2022 Field Meeting was a great success as reported in Bulletin 94. The 2022 expenditure was less than the previous year because of a lower room rate for bed and breakfast only. Three deposits were received for the 2023 meeting at Swansea. This is the same amount as had been received in deposits for Norwich a year earlier, so the net movement of funds shows a zero for field meeting funds, no deposit having been required by the university before the end of 2022.

Early in 2022, Anthony Bainbridge took over the distribution of back issues from Martin Drake, to both of whom we extend many thanks. Now that the Bulletin and Digest are made available on the website, this transfer included the disposal of most of the old printed copies. We have experienced the prevalent inflation in printing and postage costs. This is not obvious from the costs shown in the summary accounts because of variations in the number of pages and the number of copies printed. Fewer spare copies are now ordered as "back issues" are now needed only for members joining or renewing during the course of the year.

Over the years, the Bulletin has increased in scope, besides introducing full colour in 2018. As a result, our membership rates do not reflect the relative unit costs of our two publications. So, as announced in the Spring 2023 Bulletin, the increase in UK membership rates for 2024 to cope with inflation has been applied as a flat £4 across the board. However, if you elect to receive the Bulletin electronically there will be no increase on the current (2023) subscription. We are very grateful to the Biological Records Centre (BRC) for continuing to bear the cost and labour of sending out the physical Bulletin.

As regards other expenditure, the normal pattern has largely resumed with a stall being taken at the annual AES meeting and Dipterists Day being held in person with speaker and refreshments expenses. Only one bursary was applied for and granted, for participation at the field meeting. UEA generously made a workroom available free of charge, and the only additional expense was a small fee for conversion of a foreign currency payment.

Due to an oversight the 2022 Buglife subscription was not paid in the course of the year. Nevertheless, Buglife has been helping us with raising finance for a special project. Details are yet to be announced, but we have pledged a sum of £2,000 towards this.

Overall, a small surplus of £297 was recorded for the year.

Signed: P W M Brighton Treasurer
Date: 13 March 2023
Signed: J P Flynn Independent Examiner
Date: 17 March 2023

	2021		2022	
Income	£	£	£	£
Subscriptions		8,536		8,832
Back issues	69			
Donations	439		193	
Pooters	50		60	
WILDGuide Royalties	936		677	
		1,494		930
Field Meetings - net receipts from participants				
Falmouth 2021	9,331			
Norwich 2022	300		8,110	
Swansea 2023			300	
		9,631		8,410
Total Income		19,661		18,172
Income net of field meeting payments				
		10,030		9,762
Movement of Funds				
	2021		2022	
	£		£	
Opening balance (1st Jan)	24,222		25,221	
Net Surplus/Deficit	-2,878		297	
Field meeting funds	3,877		0	
Closing balance (31st Dec)	25,221		25,518	
	2021		2022	
Expenditure	£	£	£	£
Dipterists Digest 28.1	1,267			
Dipterists Digest 28.2	1,267			
Dipterists Digest 28 Supplement	1,921			
Dipterists Digest 29.1			1,255	
Dipterists Digest 29.2			1,298	
Digest envelopes	62			
Digest postage	2,507		1,400	
	7,024		3,953	
Bulletin 91	1,725			
Bulletin 92	1,550			
Bulletin 93			1,771	
Bulletin 94			1,743	
Bulletin envelopes/packing	755		924	
	4,030		4,438	
AES Exhibition			44	
Back issues	260		290	
Committee expenses			50	
Dipterists Day			356	
Website hosting	25		25	
Bursaries & grants	207		194	
Muscidae Drawings	560			
Buglife Subscription	10			
Insurance	138		110	
Field Meeting expenses	635		7	
	1,854		1,075	
Field Meetings - payments on behalf of participants				
Falmouth 2021	5,753			
Norwich 2022			8,610	
	5,753		8,610	
Total Expenditure	18,661		18,075	
Net expenditure	12,908		9,465	
Net surplus/deficit	-2,878		297	

Eulogy

Tony Hutson

10TH JUNE 1944 ~ 16TH FEBRUARY 2023

Tony Hutson is perhaps best known for his enormous contributions to bat conservation throughout his life and the best part of his working career, both in the UK, Europe and much, much further afield. These contributions are well documented in an obituary by colleagues Paul Racey & Peter Lina published on the website of the Bat Conservation Trust *Tony Hutson 1944-2023 - News - Bat Conservation Trust* (bats.org.uk), an organisation that Tony was instrumental in setting up in 1991.



From a young age Tony had always had a fascination with natural history, in particular mammalogy. Tony and his friend the late John Burton joined the London Natural History Museum's New Naturalists Club as schoolboys during the 1950s, and it was here that Tony was first properly introduced to bats. By 1958 the pair had joined the London Natural History Society and were involved in various mammal surveys, including bats, where they were able to get involved with capturing, studying and ringing bats from Kent to the Isles of Scilly. And so began a life-long passion.

On leaving school Tony enquired at the London Natural History Museum about the possibility of a job working with mammals, particularly bats, but the only vacancy available at that time was in the Entomology Department. However, the post was not to be without chiropteran interactions... One of his first bat / insect crossovers was identifying insect remains from bat droppings collected from Niah Cave in Borneo.

Tony specialised in Nematoceran Diptera, and also the dipteran ectoparasites of mammals and birds, including a number of species peculiar to bats, often species specific. Aside from his numerous contributions to the literature pertaining to bats and bat conservation globally, Tony produced two key works on British Diptera on behalf of the Royal Entomological Society of London. The first was a collaborative effort with Leonard Kidd and Michael Ackland to produce a key to the large and challenging fungus gnat family (Mycetophilidae) (effectively 'bat food') in 1980; this covered all except for the subfamily Mycetophilinae, now dealt with in 2022 by Peter Chandler. Then in 1984 was published a solo effort on the ectoparasitic, blood-sucking flies known as keds, flat-flies & bat-flies (Hippoboscidae & Nycteribiidae). This latter volume consolidated Tony's various passions in the world of natural

history: mammals – in particular bats, birds (Tony was a keen birdwatcher and was involved with bird ringing etc) and of course the insects that interacted with the above higher taxa as potential food resources themselves, or totally flipping the script, evolving to become blood sucking external parasites of our mammalian and avian fauna.

Tony was eventually lured away from his entomological career at the Natural History Museum to pursue his absolute passion for bats and their conservation, spurred on by the protections afforded to the group by the Wildlife and Countryside Act (1981) in the early 1980s. The catalyst was his old school friend John Burton, then CEO of the Fauna & Flora Preservation Society (FFPS), who created a post of the UK's first bat conservation officer and persuaded Tony to fill it.

Tony's interest in entomology never waned, although it perhaps did not have the necessary fuel to burn as bright as it once did before the lure of the dark side of natural history became overwhelming. The study of bats can be a lonely nocturnal affair, or isolated deep underground in dark, dank cave networks or abandoned old tunnels that stretch for great distances. However, Tony would always find some invertebrate interest in these situations, be it insects attracted to light traps, feeding remains of bats or the obscure denizens of the underground sites where bats congregate in winter.

Tony Hutson was as humble, charming, knowledgeable, caring and most affable a man as you could wish to meet, always enthused about natural history and always keen to share knowledge and learn new things.

Scotty Dodd

In 1962, at the age of 18, Tony Hutson joined the staff of the British Museum (Natural History) as a Scientific Assistant. Despite (more likely because of!) his strong pre-existing interest in bats, birds and other vertebrates, fostered and developed in collaboration with his childhood friend the remarkable John Burton (<https://www.worldlandtrust.org/who-we-are-2/obituary-john-burton/>), Tony was allocated to the Department of Entomology. At that time, all new 'entom' assistants started in the so-called Setting Room, to gain basic competence in recognizing the major groups of insects, preparing specimens for the collections, and learning how the museum and its departments were structured. Sometime in 1963 Tony became a junior member of the Diptera Section, working in support of Dr Paul Freeman, specialist on Nematocera – most notably the Chironomidae. At that time I had been Paul's assistant for about 18 months, but planned soon to depart for university. Thus it came about that, for some weeks, Tony and I worked together – and, because Paul had encouraged me to take an interest in Tipulidae, I guess some of my growing enthusiasm for crane flies rubbed off.

The official records of the museum's departments in those days made little reference to junior staff – indicative of the extremely hierarchical nature of the scientific civil service. One exception was fieldwork – always something Tony was very keen on. Thus in this early period he is noted as having been in Spain in 1965, the Moroccan Sahara in 1966, Eigg in 1969, and Eigg again, Inverness and East Anglia in 1970, to collect Diptera and other insects. His big fieldwork opportunity came, however, in early 1968, having been chosen with fellow dipterist Brian Cogan (also an excellent general entomologist) to join the Royal Society Expedition to Aldabra. Character-building stuff, including travel with the RAF – and hugely successful.

Despite exotic callings such as the Indian Ocean, at that time the BM(NH) Diptera Section was deeply committed to the Royal Entomological Society's Handbooks series on British

insects – including the 1976 update of Kloet & Hincks' 1945 Checklist of British Insects. So it was that Tony came to make a series of important contributions, not only to the checklist, but also in the form of papers – and two handbooks, one with the late Michael Ackland and Leonard Kidd on fungus gnats, the other as sole author on keds, flat-flies and bat-flies – in this case neatly combining, as he often managed, work on insects with his passion for vertebrates. And in among these exertions, through his interactions with Alan Stubbs, Brian Freeman and others, during 1970–71, Tony visited Monks Wood Experimental Station to help take the preliminary steps necessary to create a national tipulid recording project. By this time (1971) Tony had been promoted to Higher Scientific Officer, and the remarkably able Peter Cranston had joined the Diptera Section – and the project. Formally launched in 1972, Tony was a co-organiser of the Nature Conservancy's [BRC] Crane-fly Recording Scheme. Although he was soon to step away from close involvement with craneflies, as pointed out to me by Adrian Pont and which can also be appreciated from Alan Stubbs' account in *Dipterists Digest* no. 6 (1990), Tony played a foundational role in the movement that created the *Digest* and, eventually, the *Dipterists Forum*.

In the midst of all this 'local' effort, the Indian Ocean beckoned a second time. Three years after his return from Aldabra, Tony was sent to Diego Garcia, in the Chagos Archipelago "to study the fauna and flora in the early stages of the establishment of a communications facility". Aldabra had been almost a collegiate experience, with many colleagues and much camaraderie. On Diego Garcia, Tony was much more isolated, at least initially – before the arrival of the US marines and engineers ('Seabees') tasked with building the euphemism – of course, in reality, this was the establishment of Diego Garcia as a major US/UK military intercontinental airbase and naval facility. During 1971, the last of the 1000 previous inhabitants, the Chagos islanders, were expelled – involving international disputes and litigations that continue to this day. Although Tony's fieldwork was successful (e.g. increasing the number of insects previously recorded from the island from 28 to about 300), it came at

c o n s i d e r a b l e psychological cost. The experience was a great shock that marked him – because of the desecration of what seemed almost an island paradise, and the cruel expulsion of the hapless Chagossians, both of which he witnessed. Tony's natural exuberance was palpably affected for several years afterwards – at least to those who knew him well. But he carried on. During his time at the Museum, Tony authored or co-authored almost 50 publications, with contributions on at least 14 families of nematoceros Diptera, as well as other flies, and fleas. His 1984



worrying ongoing reduction in the quantity of "bat food" (notably *Tipula paludosa*!).

Dick Vane-Wright

Although Tony's original and continual interest was in bats and birds, he had an extensive knowledge of 'nematoceran diptera' and flies parasitic on vertebrates. He was a key member of the Natural History Museum Diptera section in the 1970s and 80s (see 1977 photo of 19 staff and permanent associates) and was characteristically helpful to visitors wishing to use the collection, utilizing his extensive knowledge of the collection and of earlier dipterists.

Tony joined two major expeditions to Indian Ocean islands, the first to the Aldabra Atoll with the Royal Society and the second to Diego Garcia in the Chagos Archipelago. In his private time, he regularly visited well known birding sites in Britain and continental Europe, especially the Scottish Island of Eigg and the field station at Cap Gris-Nez in northern France, to record birds and collect.

Accompanying him on field work investigating hippoboscids on swifts at Beddington Sewage Farm on the then edge of S.

London was illuminating. Not only was he very proficient in handling birds recovered from mist nets but if the number of *Crataerina pallida* exceeded the tubes immediately available, he put the louse flies in his hair, to run free until another tube was available! (results were published in *J. Zool*, 1981, still a classic study on these flies).

As an individual he was charming, helpful and sociable. He was my boss when I first joined the NHM (BMNH) in 1968, and was always encouraging and supportive, giving me many opportunities that ensured a lifetime interest in Diptera.

Richard Lane



NHM Dipterists 1977: From left to right (f – front row; b – back or behind): Graham White (b), Peter Cranston (f), James Dear (b), Rosie Hayman (f), John Chainey (b), Dick Vane-Wright (b), Harold Oldroyd (f), [as yet unnamed (b)], Paul Freeman (f), Brian Cogan (b), Roger Crosskey (b), Richard Lane (b), Ken Smith (f), John Reid (b), Adrian Pont (f), Peter Mattingly (b), David Lewis (b), Tony Hutson (f), Keith Harris.

When I joined the then South London Ent. Soc. (now BENHS) in 1966, Tony was part of a small band of NHM staff who regularly came to the evening meetings at the Alpine Club. It was later that year that I began to visit the museum's Diptera section, where it seemed that Tony was responsible for all Nematocera not regarded as pests. Thanks to an early interest in crane flies, he was involved in the foundation of the crane fly recording scheme, together with Alan Stubbs and Dick Vane-Wright. The launch of the scheme was boosted by a field week (18-24 August 1973) in the Forest of Dean. The success of that meeting led to a second (the first that I attended) in the following year at Rogate in Sussex, where Alan, Dick and Tony continued to amass crane fly records. It had fortunately been decided to extend the coverage to include other Diptera and dipterists with other interests, so was the beginning of the regular dipterists' field meetings that have continued ever since.

Throughout the 1970s Tony was also working on fungus gnats, collaborating with Leonard Kidd and Michael Ackland who had begun in 1969 to prepare a handbook to the British species. He collected them too during those early field meetings, and in the Forest of Dean he found as new to Britain *Neoempheria winnertzi*, which is still rarely recorded. He was particularly pleased to have caught the first known British specimen of *Mycomya pectinifera* at Antony in Cornwall in 1972; this species was later found to be abundant in Devon and considered a south-western speciality until it began to spread east (still only as far as Wilts and Hants) and north – it is now found widely in Wales and the West Midlands. Tony came to the first autumn field meeting at Dolgellau in 1975, when fungus gnats were in numbers that can now only be imagined, and where he contributed towards making this a successful social event that set the scene for future autumn meetings. Knowing that a handbook was imminent encouraged me to continue with my interest in these gnats, about which so much remained to be discovered.

In 1978 an undescribed fungus gnat was found infesting rotting root ginger in a London warehouse previously used for banana ripening. The subsequent destruction of the warehouse by fire resulted in Tony's naming it *Leia arsona*, taking this chance to bring humour to scientific nomenclature.

After leaving the museum to work with bats, Tony continued to have an interest in Diptera and he occasionally sent me fungus gnats found in underground sites. He had contributed the chapter on caves, and also chapters on associations with vertebrates and with mites to the first edition of the Dipterists Handbook. He happily provided excellent updates on the first two of these for the second edition that appeared in 2010, but decided that mites should be covered by a specialist.

Tony's publications on bats included two popular books, *Bats* (2000, World Life Library) and *Bats their biology and behaviour* (2022, NHM). I was surprised to see that the number of bat species known worldwide had increased in the time between these books from nearly 1000 to more than 1400, with increases in most of the 21 families. While others worked on bat taxonomy using DNA, Tony made a considerable contribution to knowledge of their biology and especially to their conservation.

Peter Chandler

In February this year I was sailing the Indian Ocean, including visiting an area that Tony had researched half a century ago. I was thinking very much of Tony that week while on a small (ish) cruise ship exploring the natural history of islands such as the Seychelles and Aldabra Atoll (but not to the militarily off-limits Diego Garcia ...). The ship lacked wifi so I could not tell Tony of my abiding memory of his trip reports of 50 years ago, which contributed to the saving of Aldabra for world conservation and science. Sadly, and to his life-long regret, his equally powerful evidence for saving Diego Garcia was ignored as perfidious governments sanctioned the conversion of the main atoll for the US military base and all residents were evicted. Tony never forgot or forgave this action, and was a lifelong advocate for the 'forgotten' Chagossians. I intended to tell Tony that in the few hours ashore on Aldabra, 9 of the 10 endemic birds were observed close to the research station, as were the famous tortoises: all were doing well. It was a shock on returning home to Australia from Mauritius to read of Tony's death, and my chance to acknowledge him had passed.

In 1971, I joined the British Museum of Natural History as it was known then (now The Natural History Museum) and within a few months I was allocated to the Diptera section to assist Tony on Nematocera. Actually, he was still in the British Indian Ocean for many more months. Prior to meeting my new boss, I was quite ambivalent about the department and an entomological career. Then Tony returned like a breath of fresh air, enthusiastic across the breadth of natural history. He demonstrated by example that museums and individuals could do so much for conservation (and lots more).

In the context of Diptera, Tony and Dick Vane-Wright encouraged me to contribute to the crane fly recording scheme in its early days. I recall being surprised that in the same area and using the same sweeping technique, our cumulative total of over a hundred species had one-third in common to all of us, one-third to two of us, and the remainder unique to individual collectors. I surmised differences came from my preference for wet feet and from Dick's Lepidoptera-style sweeping skills, while Tony gravitated to dark holes and caves. Tony was always keen to help with all aspects of publishing science, and I recall Tony's generosity in declining co-authorship despite massive input in the early days. A major role in assisting Tony was to check his draft keys to selected Mycetophilidae against the huge accession material – and Tony was a tolerant guide to the diversity of morphologies of the fungus gnats and the complexities of nomenclature. It was Tony who suggested that the Chironomidae had been neglected since Paul Freeman had become Keeper of Entomology, and he was instrumental in encouraging my adoption of the group for a PhD and career thereafter.

I often joined Tony in the field, including the caves at Westerham, disused railway tunnels and sewage farms, throughout southern England. My then young children loved visiting Westerham with 'Batman Tony', who treated them as adults. We watched hoopoes fly through fog to Dungeness (and then turn back ..), a Franklin's gull sitting on an icy Lowestoft fish factory roof on New Year's Day, and cranes in Norfolk rain amongst many other memorable days. So many good memories of those times included Tony. Vale Tony Hutson, thank you for everything.

Pete Cranston

Meetings

Surveys

Darwin Tree of Life and The Dipterist Forum

Inez Januszczyk,

Sampling Coordinator, Darwin Tree of Life Project,
Natural History Museum, London.

The Darwin Tree of Life (DToL) project is an ambitious project that aims to sequence the whole genomes of every eukaryotic species in the UK, including all terrestrial and marine invertebrates, vertebrates, plants, and fungi. The current estimate is totaling 75,000 species, although this number continues to fluctuate. The Natural History Museum (NHM) is not working alone; the 10 principal organisations taking part are the Sanger Institute, Kew & Edinburgh Botanic Gardens, the Marine Biological Association, the Earlham Institute, EMBL-EBI, and the universities of Cambridge, Edinburgh & Oxford. The UK biota has been specifically selected for this first attempt at mass genome generation, as it is (thanks to the numerous, historic recording schemes and a thriving community of naturalists) one of the best known in the world. Out of the global diversity of described families, the UK biota contains a surprising 43%. This makes it an ideal blueprint for a project that is continuing to develop new protocols and methods aimed at capturing this diversity for long term study.

For DToL, one of the biggest roadblocks is the way specimens are collected. In order to preserve the DNA for whole genome sequencing, specimens have to be snap-frozen, live, at minimum -80 degree Celsius. This poses challenges in the field or when working in non-laboratory spaces, relying on portable dry-shippers, boxes of dry ice or plug in -80 freezers, all of which have strengths and weaknesses. Diptera make up an (approximate) 7,000 species, which is over 25% of all identified UK insects. Many UK Diptera are excluded as it is not possible to identify them to species in the hand, not aided by the fact many Diptera species do not survive for long in tubes and vials. As members of the Forum would know, Diptera (along with parasitoid Hymenoptera) also make up a large proportion of the often described 'dark taxa', taxa that is either little or completely unknown. Whilst Malaise traps allow for collecting and studying these species, DToL is again limited by preservation methods, size and available expertise.

Every specimen submitted to DToL has to be identified to Genus minimum, a hard and fast rule implemented to ensure we are only processing known, identifiable species, and to minimize reliance on an incomplete DNA barcode reference library. For DToL NHM, we aim to capture five specimens of each species to ensure we have collected enough tissue. Every specimen for the project is barcoded prior to it being sent to the Wellcome Sanger Institute for whole genome sequencing/assembly. Each barcode match or mismatch is confirmed with the identifier, and voucher tissues are checked (if required and available). All these verified sequences will eventually be uploaded onto DNA barcoding libraries such as the Barcode of Life Database (BOLD). Projects occurring in tandem at the NHM such as the UK Barcode of Life Project are also greatly contributing to this process.

The current hope is to move away from snap freezing in the field, to preserving specimens using solutions such as RNA later, Ethanol or Deep Eutectic Solvents (DESS); a new class of solvents characterized by a decrease in melting point, which

also work to minimizing DNA degradation. This will vastly open more doors in terms of sampling remote locations and accepting external submissions, as we will no longer need to rely on a cold chain supply being available.

In terms of DToL NHM's work with the Dipterist Forum – we are lucky to have attended the Summer Field Meeting for three consecutive years since 2021. This year the Forum was based in Swansea, with sampling based around the Gower and beyond, as well as flash visits to unique sites such as the National Botanic Garden of Wales. Joined by Zoe Adams from the NHM Diptera department (and the Forum's Indoor Meetings Secretary), this was the first time DToL NHM has actively sampled in Wales. Despite the periodic (and unforgiving) showers, we were able to capture a huge variety of species; not just Diptera but submissions from Coleopterists and Hymenopterists alike, including a new sawfly family for the project (Heptamelidae, species *Heptamelus ochroleucus*). Total numbers amounted to 463 specimens, 326 species. For Diptera specifically, 158 specimens and 119 species, with 50 species being completely new to the project which is very exciting.

As of writing Diptera are second after Lepidoptera in terms of whole genomes released, with 34 species released versus 129. There are 134 pending Diptera genome annotations, so the coming year looks promising. All the genome sequences are publicly accessible on the Wellcome Open Research website

To date the DToL project has submitted, for genome sequencing, 72 families, 321 genera, and 570 species of UK Diptera. There is still a long way to go, but groups such as the Dipterist Forum and the expertly organized field meetings make the work ever so slightly easier.

If anyone is interested in contributing, do email our Sampling Team email address darwintreeoflife@nhm.ac.uk We can provide species lists, tubes, labels, and advice on submitting live specimens, as well as options to reimburse postage.

More information about the project and the team is available on the DToL NHM website <https://tinyurl.com/mrym5a3a> and submissions can be tracked on the DToL data portal, manned by the Sanger Institute: <https://portal.darwintreeoflife.org/>.

Thank you to everyone in the Forum who has contributed specimens or expertise to this mammoth project. It is always a pleasure to attend the Dipterist Forum meetings, mainly due to the members' infectious passion, drive, and knowledge.



Sampling on the Gower 2023

Reports

Regional Groups

Leicestershire Rambles

The end of June found us in a couple of popular Leicestershire sites. The first was **Watermead Country Park** where we encountered a film crew working on filming pollination corridors on the marvellous wildflower meadow that's kept locked and dog-free on most days. Conversation with the warden there involved many wildlife reminiscences as I'd worked in the counties LERC and knew many naturalists. A county famous for its beetles of course, I'd not met collectors Wallace and Bates as they were active more than a century ago but the late Derek Lott was my boss at the museum and Graham Finch today continues their coleopterist legacy.



Our second site was **Cloud Wood**, some dipterists will recollect visiting that site a few years ago. Extremely popular with lepidopterists at that time, some nice active stuff around such as the Silver Washed Fritillary but these guys were after a hairstreak which wouldn't come down from the trees and hoping for first sights of the Purple Emperor. More than 6 entomologists, all wielding some nice DSLRs with macro lenses; equally split between Canon and Nikon brands. Many fascinating conversations about gear with them of course and naturally I was advocating fly snapping too, one chap showing me an amazingly crisp shot of an *Eristalis* shot on a mobile phone. He's now looking out for a clip-on phone accessory to give him more reach (I'm not going to investigate those.) Three Wildlife Trust crew with clipboards passed through, advocating to Joyce the use of Naturespot for uploading images. I'm not sure what the lepidopterists were doing in that regard, presumably they are linked up to Butterfly Conservation initiatives or they're just trying to improve their personal photograph collections.



Naturespot is a curiosity though, it's this counties version of iRecord and eventually records pass to there. The path to Open Data may be long and tortuous though. My photos go straight onto iNaturalist; the path to Open Data from there is twofold, via iRecord to NBN Atlas which will depend on our Recording Schemes doing their verifying on iRecord

whilst also passing along the direct iNaturalist>GBIF route which occurs within days so records verified there will become Open Data within a week. My shot of the Tree Damsel Bug (*Himacerus apterus*, above, new to me) for example was determined by a German expert the same day I snapped it and was Open Data on GBIF a few days later. I don't know if the above *Dolichopus plumipes* is special but it looks identifiable in the field (though quite tiny) - thanks to Martin Drake for the ID.

Darwyn Sumner

Northants Diptera Group

In order to attract more participants, we have renamed the group as Northants Invertebrate Group. I shall only report Diptera activities here, however. The Spring has been very slow with numbers of hoverflies well down. It is hoped the recent wet weather will have helped to improve conditions. The group held an indoor meeting to help with identification and we have had several field meetings. One of these was a joint meeting with the Bedfordshire Invertebrate Group at a new nature reserve in North Beds, close to the Northants border. Members have also taken part in a couple of bioblitzes organised by the Wildlife Trust for Beds, Cambs and Northants. We have also been asked to survey a private estate near Corby which is rewilding part of its land.

Although there have been fewer records than usual so far this year, we have had records of *Callicera aurata*, from an estate near Kettering and *Cistogaster globosa* in the Nene Valley.

John Showers

Exhibitions & Fairs

Staffordshire Invertebrate Science Fair Staffordshire University



Jane & Phil at our stand in March [D.Sumner]

Amateur Entomological Society

Dipterists Forum did attend - sadly no photographs were sent to the editors.

Birdfair at Rutland Showground

Dipterists Forum have discussed the feasibility of a stand at this event. Previously we've seen other invertebrate societies such as British Arachnological Society manning a stand there. This time I found only the British Dragonfly Society. Their eye-watering costs for the three days was probably our entire membership income so I fear this kind of event is out of our league. Worth going to for the art, cameras, books and other stuff but not for *al fresco* dining as they provided no rain shelters beyond a crowded pub tent and the marquees.

We can probably only manage 1 day events and then only in areas with a good concentration of dipterists living nearby. Additionally they'd have to be the sort of event to attract lots of entomologists; keep your eyes peeled, they've been held at Liverpool Museum and Granby Street in Leicester in the distant past and we did one at Pentishorpe in Norfolk more recently.

If we ever come across a likely event in a field then I could loan a 5m Coleman shelter (paid delivery ideally.)

Ed.

Meetings

Meetings

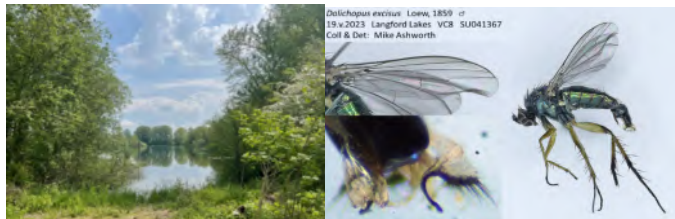
Spring Field Meeting 2023

Wiltshire

19-21st May

Bombs away!

It's Friday afternoon, I'm in my campervan and I've just pulled up at the car park of Langford Lakes, a Wiltshire Wildlife Trust (WWT) site located near to Salisbury. I pull out my pooter and net from the back of my van and on a glorious afternoon I head off to meet a 'Sweep of Dipterists'. It's the 19th of May and it's a spring field excursion to Wiltshire for the Dipterists. The weather is good, the company great so let's hope for some good flies! Soon after arriving at the location, I met a disgruntled Dolichopodid specialist, heading off to another site as 'they' were not recording much. And this initially appeared to be a common response with the other Dipterists. Saying that, I swept a *Thereva nobilitata* in my second sweep and I am a sucker for a fly with a beard! And there were also other highlights – Nigel Jones swept himself a *Fannia speciosa* (Fanniidae) (there are only 74 records on the NBN atlas). Mike Ashworth also recorded *Zophomyia temula* (Tachinidae) said to be Nationally Notable, but Chris Raper has stated that this is much commoner now, often being found in meadows in the South. Mike also found the dolichopodid *Dolichopus excisus* (confirmed by Martin Drake) This species was reported as new to Britain in 2005 (Gibbs, Dip Dig 2006) and only about a dozen records have been accumulated since then, all coastal, so this is the first inland record.



The pretty Langford Lakes and Mike Ashworth's image of *Dolichopus excisus*

The sky began to look ominous, and the group split to head to different locations. I jumped in the back of Neil Fletcher's (rather nice) car and headed with a small group to a private Mill at Great Durnford, Amesbury under the care of George Prior-Palmer, one of the WWT team. George described the habitat as 'un-grazed former water meadow, and silty side channels/boggy areas that ought to provide some squidgy mud' – he was

very truthful, and it was a great site. I was totally blown away by sweeping *Odontomyia argentata* (Stratiomyiidae) – only the second record for Wiltshire (but several more were further sampled). Although not rare, several of us swept the 'weird pointy-headed' (direct quote from Martin) fly *Trigonometopus frontalis* (Lauxaniidae) – such a fun looking creature. Other sites were visited that day and they included SmallBrook Meadows Nature Reserve WWT where Nigel recorded more nationally scarce flies - *Sybistroma crinipes* (Dolichopodidae) and *Spania nigra* (Rhagionidae). Mike was one of those to visit Coombe Bissett Down WWT and took some lovely images of the small *Limnia unguicornis* (Sciomyzidae)



My pooter shot of *Odontomyia argentata* and Mike's better image of *Limnia unguicornis*

I was picked up by Sue Taylor on Saturday morning and we joined the entire group on the MOD Eastern Training Ground on Salisbury Plain. It's always fun to come across signs saying beware of tanks passing. We managed to get a picture of everyone (except Mr 'Stuck in Traffic' Martin Harvey) – look at how happy we all look! Nets at the ready and led by Iain Perkins and Nigel Cope, from the MOD conservation group, we headed off to discover the land's secrets.

Under a very hot sun the group scattered at the first site, all mindful of ticks (that definitely made themselves be known). I headed into the wood at the first site and was happy – lots of *Dioctria rufipes* (Asilidae) as well as *D. atricapilla* (and puddles full of fairy shrimp!). The second site along the road was much the same, and once James McGill had cleaned some of the countryside we were off again.





James hoovering for spiders and evidence of dinosaurs...

The final site was named 9-mile river, although the river was more a distributed series of puddles at this time of year. Nigel swept *Xanthochlorus suturalis* (Dolichopodidae) under a large stand of old beech trees, whilst Martin recorded *Neurigona suturalis* (Dolichopodidae).



The old Beech woodland, and a very happy and inquisitive Iain Perkins

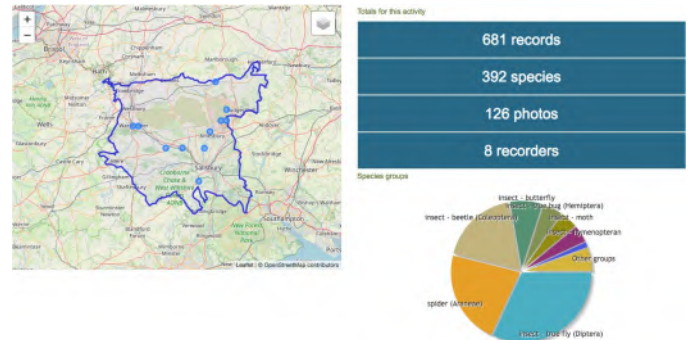
Sunday morning and again with glorious weather I headed to Jones's Mill the Vera Jeans Reserve, another WWT site, driving past folks with nets who were sampling along the Avon at West Chisenbury. The grassland looked great but there was a noticeable absence of insects on the wing. Hardly any hovers (and very few bees) – our nets were dominated by hundreds of tiny brown moths. But down by the river and in the boggy grassland there many species to discover – I even came across the globally important Peter Chandler! As well as the Marsh fritillaries and the snake flies – there was much proper insect activity to be admired. Martin Harvey swept a spear-winged fly *Lonchoptera scutellata* (Lonchopteridae)– another nationally scarce fly.



The meadow at Jones' Mill and Martin Harvey's image of *Lonchoptera scutellata*

As of writing, nearly 400 species from across all taxon groups have been recorded – and that is only from eight of the many folks that attended. And indeed, my samples are still being processed and many of them will go over that be sequenced for the UKBOL project - <https://www.ukbol.org/>

Many thanks to the Wiltshire Wildlife Trust, Anthony Bainbridge, Rob Walton, George, as well as Jane Hewitt and Marc Taylor (who weren't able to attend) for the organisation of the sites, permits and much more, and to all the many individuals that helped make the weekend a huge success – I will sign off with the wonderful words of Una Garland as I think that they were most apt 'Had a wonderful time with wonderful people in wonderful weather'



Erica MacAlister

Summer Field Meeting 2023

50th Field Meeting

Swansea, South Wales

Saturday 8th July to Saturday 15th July 2023

After what seemed like months of planning, on July 8th a large number of dipterists (along with some participants specialising in hymenoptera, coleoptera, hemiptera or trichoptera) converged at the University of Swansea. Thirty of us stayed on campus; one person stayed locally but joined us for meals and use of the workroom. Two enterprising members camped on Gower for just the weekend but still managed to visit six sites, including some remote upland areas. Three participants had to cancel at short notice; we were sorry that you were unable to join us and hope to see you at next year's meeting. Our thanks go to Professor Mary Gagan and her team for hosting us in the College of Science Margam Outreach Space at the University. Here, we were provided with workroom space and access to a kettle and a useful fridge.



On Saturday morning, assisted by Jenni Wilding, I led a 'Meet the Dipterists' event at Clyne Valley Country Park, just a mile from the University of Swansea. This event was organised by the Clyne Valley Community Project, who are trying to promote biological recording in the area. After a cool, wet start

Meetings

to the day about ten enthusiastic participants, including three local undergraduates, arrived just as the sun started to shine. A stand of hogweed provided an ideal opportunity to wow them with a good range of hoverfly species, including *Leucozona glauca* and *Volucella pellucens*. An event that was well worth the effort and I shall try to do something similar at next year's meeting.

Throughout the rest of the day, people arrived at our workroom base, many having taken the opportunity to visit one or more sites on the way. As usual, we held our planning meeting in the evening, where several local recorders joined us. In addition to general matters about the week, Liam Olds gave us an introduction to a number of ex-colliery sites in the area for which he had organised access. Our meeting was financially supported by the South East Wales Biological Records Centre (SEWBRc), who provided a grant of £750 to facilitate collection of data for under-recorded invertebrate groups in this area of Wales. This grant award meant that I arrived with a large supply of maps and small bits of kit (pins, tubes etc.) for meeting participants. Some of the new style crystal boxes (see details by Andrew Cunningham elsewhere in the Bulletin) were also part of this goody box. The initial response to these was positive, noting that the increased depth reduces the risk of damaging larger specimens. We are very grateful for this funding and hopefully will be adding many records to their database.

The fieldwork during the week was impacted by the summer weather in two ways. Firstly, the drought throughout June (some areas of South Wales had five weeks without rain) meant that many sites were very dry. Unfortunately, our arrival in Swansea then coincided with the start of a wet, windy and cool spell. Good for the flies - less good for a successful field meeting. According to data from the weather station at Mumbles, the temperature reached a high of 21°C on the 7th July, but for the following week the maximum temperatures were only around 18° with some rain most days. Generally we had intermittent, heavy showers throughout the week. Those of us with smartphones could regularly be seen anxiously checking weather radar apps to try to predict which areas might be rain-free during the day. Even when the weather was dry, strong winds were very challenging on some of the exposed sites. The final Friday was effectively a wash-out, although a small group ventured out to a local site in late afternoon to gather a few final records.



Martin Drake, using an essential item of field kit for this year's meeting. Photo Nicky Hodges.

Undaunted, everyone made the most of the any dry spells and between us we visited well over 40 sites in the course of the meeting. Unlike the previous couple of summer field meetings, where hot weather meant that there were few flies about after 3 or 4pm, this year late afternoons often had the best weather and proved surprisingly productive. Fortunately, the catering staff at Swansea were very accommodating to late arrivals at dinner.



Oxwich Dunes. Photo Sue Taylor.

The dune systems on Gower, especially Eynon Point, Whiteford/Cwm Ivy and Oxwich were visited by many, with much of interest for the hymenopterists among us. Indeed, one particular sheltered patch of thistles at Cwm Ivy was so productive it was visited on several occasions. Also on Gower, Mill Wood at Penrice provided a number of excitements including finding *Neopachygaster meromelas* (new for Wales, taken by Andrew Halstead), seeing good numbers of at least four species of *Cheilosia* on hogweed and being joined by a naked Rambler! Many of the Carmarthen sites also proved popular, with several groups making the long trip to Dinefwr to explore the parkland and wet woodland. Two of us made a foray to some of the outlying ex-colliery sites north of Cardiff and Bridgend later in the week, which proved interesting and well worth the long journey. Each site has its own character; Cwm Tips at Beddau certainly was the most striking with the spoil heap still relatively bare and littered with pieces of coal. This site also provided another Welsh record for *Neopachygaster meromelas* as well as good numbers of hoverflies, including *Chrysogaster cemiteriorum*, on a sheltered part of the site. Cwm Tips was visited by at least two other participants and I look forward to seeing the final species list.



A group at Cwm Ivy. Photo Nicky Hodges.



Cwm Tips ex-colliery sites. Photo Jane Hewitt.

Overall, fly numbers during the week were noticeably disappointing. Hoverflies, especially *Cheilosia* species, seemed to be low in both number and diversity, while those interested in crane flies often returned to base rather downcast. The highlights list in the workroom still managed to accumulate some notable records of charismatic species. Several people found *Acrocera orbiculus* on Gower, inducing a great deal of fly envy. As usual Tabanidae were popular with many participants with *Haematopota grandis* at Cwm Ivy and Oxwich. *Tabanus sudeticus* was also seen at Oxwich as well as an upland site at Cwm Mihertach. The stiletto flies *Acrosathe annulata* and *Dialineura anilis* were recorded from Oxwich, Pembrey and Crymlyn Burrows. A *Solva marginata* at Oxwich Burrows is the most westerly record for Britain. As usual, we are collating records from the week via an iRecord activity, which will feed directly into the SEWBRc database. Thus far, we have just over 1500 records, of which Diptera currently make up about a third. This proportion will almost certainly rise over the winter as specimens are identified and a further report of finds will be in the Bulletin next year.



Jenni Wilding. Whiteford Burrows. Photo Nicky Hodges



Current iRecord map of records (July 31 2023)

Our group contained four members of the Natural History Museum London, part of the Darwin Tree of Life (DTOL) project, one of whom notably gave Andrew Grayson a good run for his money in the sartorial department. This team were kept very busy during the week collecting, collating and freezing specimens. A large package of frozen specimens was carefully shipped back to the museum at the end of the week, so hopefully the week was also a success for the DTOL team.

As usual, Andrew Halstead ran the Honeypot Challenge to encourage us to record sawflies during the week. Here is his report:

“By the end of the 2023 Dipterists summer meeting based at Swansea, 49 species had been identified. This is likely to rise to about 55 when all specimens have been examined. This compares with 78 species from the Norfolk week in 2022 and 57 at Falmouth in 2021. The relatively low number was in part due to wet weather limiting collecting, as well as the 8-14 July date being after the main period of sawfly abundance in southern Britain. Most of the sawflies were common and widespread species but two less common species were a fern feeder, *Heptamelus ochroleucus* and *Aproceros leucopoda*. The latter is an invasive non-native species known as the zig-zag sawfly, due to the distinctive feeding marks made the young larvae on elm leaves. First recorded in Britain near Dorking, Surrey in 2017, it is still in the early stages of occupying Wales.

As usual, other people attending the field meeting were coerced into collecting sawflies by the lure of the Honeypot Challenge. Each sawfly species brought back from a site gains the collector a point. The person with the most points at the end of the week wins a jar of honey. This year there were joint winners, Martin Drake and Roger Morris on 16 points with John Mousley third with 14 points. If I was the only person recording sawflies, the list of species would have been only 25 species, so the specimens brought back by the other contributors do make a real difference.”



Wet woodland at Dinefwr (photo Sue Taylor)

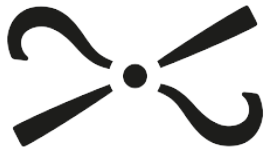
My thanks go to everyone who helped with the organisation and running of this meeting. This includes anyone who suggested sites and helped to organise access, those who helped set up and pack away the workroom, those who kept the supplies box in the kitchen stocked (dipterists consume vast amounts of tea, coffee and biscuits when confined to base in wet weather), anyone who did ‘door duty’, those who made sure no-one who needed a lift to recording sites was left behind, and finally thanks to everyone for remaining so cheerful throughout the week. This was the fourth time I have been involved in the organisation of the summer meeting - this year was definitely the most challenging! We shall reconvene at Lancaster University next year (see elsewhere in the Bulletin for dates and keep an eye on our website). I look forward to seeing at least some of you there.

Jane Hewitt, DF Secretary.

Forthcoming Annual Meeting

Friday 17th & Saturday 18th November 2023

National Museums of Scotland,
Edinburgh



National
Museums
Scotland

Dipterists Day

Saturday 18th November 2023

Chambers Street, Edinburgh, EH1 1JF

Learning Centre (Level 4)

This year's Dipterists Day is a joint affair with the Malloch Society, and we can look forward to several interesting talks from Malloch Society members. The event will take place in the Learning Centre seminar room, on level 4 of the main Chambers Street building. Attendees should enter the museum via the public entrance and make their way to the learning centre, where they will need to sign in. The museum opens at 10:00 am and the Dipterists Day event is scheduled to start at 10:30 am.

Saturday Timetable



Malloch Society



Dipterists Forum

Agenda

- 10:30 Welcome & orientation –Ashleigh, Vlad, Zoe
- 10:40 Iain MacGowan [NMS & Malloch Soc.] – Montane Diptera
- 11:05 Darren Obbard [Edinburgh Uni & DF] – Insect pathogens
- 11:30 Coffee
- 11:50 Geoff Hancock [Malloch Soc.] - sensory pegs on *Prionocera* (Tipulidae) larvae
- 12:15 Dipterists Forum AGM
- 12:45 Lunch
- 13:45 Ian Strachan [Malloch Soc.] - Diptera in the Arkaig native pinewood
- 14:10 Helen Taylor [RZSS] – The Pine Hoverfly captive breeding programme
- 14:35 Coffee
- 14:55 Murdo MacDonald [HBRG] – Recording Diptera in Highland
- 15:20 Martin Harvey/Claire Carvell [BRC/CEH] - Pollinator Monitoring Scheme
- 15:45 Close

Accessible parking

Blue badge holders can book a space in the museum carpark. To book please contact Ashleigh Whiffin (A.Whiffin@nms.ac.uk).

You are encouraged to bring an exhibit along to Dipterists Day – there will be a small prize for the best display!

Online Attendance

Dipterists Day will be broadcast in a similar way to the 2022 event, via an MS Teams link. The attendance link will be made available via the Dipterists Forum website news page <https://dipterists.org.uk/home> at the start of October.

Visit to the National Museums Collection,

Friday 17th November 2023

National Museums Collection Centre

242 West Granton Road, Edinburgh, EH5 1JA

As the collection centre is not open over the weekends, access for DF and Malloch Society members has been arranged for Friday 17th November. You must register in advance if you wish to visit the collections, with a hard deadline of Wednesday 15th November, for registration. Please send your name and general details of which groups you plan to look at, to Ashleigh Whiffin (A.Whiffin@nms.ac.uk)..

Dipterists Supper

Friday 17th November 2023

The Dipterists Supper will be held on the Friday evening at a local restaurant. If you wish to attend, please contact Zoe Adams (z.adams@nhm.ac.uk) in advance so that the restaurant booking can be organised.

Annual General Meeting

Saturday 18th November 2023

National Museums Scotland, Edinburgh

The Chair will open the AGM (Time to be confirmed)

Agenda

1. Apologies
2. Chairman's Report
3. Treasurer's Report
4. Dipterists Digest Editor's Report
5. A.O.B.
6. Election of Officers and ordinary members to committee

The Chairman is elected biennially. The Secretary, Treasurer and other Elected Officers with specific responsibilities (detailed below) require annual election. The constitution currently requires nominations 30 days in advance of the AGM. Ordinary elected committee members serve for two years.

The Officers and Ordinary Members proposed for re-election or election this year, 2023, are as follows:

Officers

Chair
Vice Chairman
Secretary
Treasurer
Membership Secretary
Indoor Meetings Secretary
Bulletin Editor
Assistant Bulletin Editor
Digest Editor
Publicity Officer
Website Manager
Conservation Officer
Training Coordinator

Erica McAlister
Rob Wolton
Jane Hewitt
Phil Brighton
John Showers
Zoë Adams
Darwyn Sumner
Judy Webb
Peter Chandler
Erica McAlister
Martin Harvey
Mark Welch
Vacancy

Ordinary Members for re-election (elected 2021)

Tony Irwin
John Mousley
Marc Taylor

Already elected (elected 2022)

Victoria Burton
Chris Raper

7. Chair's thanks to hosts and formal closing of the Annual General Meeting.

Editor's Notes

If you can hang on until the following Thursday in Edinburgh then you'll also be able to catch this year's NBN Conference.

Details at <https://nbn.org.uk/news-events-publications/nbn-conference-2/nbn-conference-2023/> (shortened link <https://tinyurl.com/22bhenpj>)

If you're a Scottish resident then please take the time to read BRISC's newsletter 118 (Biological Recording in Scotland) on <https://www.brisec.org.uk/membership> where they are calling for recruits to their committee, or were this time last year.

Staffordshire Invertebrate Science Fair 2024

Staffordshire University

College Road, University Quarter, Stoke-on-Trent, Staffordshire, ST4 2DE

~ March 10:30 to 16:00

Too early to yet know the dates for this, check our (or their) website nearer the time.

Spring Workshop 2024

9th to 11th February 2024

Preston Montford Field Studies Centre

British Tachinidae

Chris Raper + Matt Smith

Check our website nearer the time and FSC's website in October when they announce course bookings.

Spring Field Meeting 2024

Radnorshire – mid Wales

Saturday 18th May to Sunday 19th May

The base for our 2024 Spring Field Meeting will be Llandrindod Wells in the Vice County of Radnorshire. This field meeting is being organised in liaison with the "Natur Am Byth! Saving Wales' threatened species" National Lottery supported project. One of the flies we will hope to find for Natur Am Byth! is the crane fly *Ctenophora flaveolata* (Wasp-banded Comb-horn Crane fly), for which records from several sites in the target area are known. This is a relatively under recorded part of the UK, so there should be plenty of scope for discoveries of new species for the area.

The usual arrangement for the spring field meeting will apply, where attendees book their own accommodation.

Further information will be posted on our website and in the Spring 2024 Bulletin.

Jane Hewitt

Summer Field Meeting 2024

Lancashire

Lancaster University

22nd June to 29th June 2024

The 2024 summer field meeting will be based at Lancaster University, June 22nd -29th. Lancaster is a good base for exploring north Lancashire, the southern Lake District and the Forest of Bowland. We have reserved 30 en-suite rooms, which are a mixture of single and twin. Unlike our previous visit to the University in 2013, breakfast and evening meals will be available. The rooms, catering facilities and the workroom are all located centrally on the campus and are in close proximity to each other. Participants will need to provide their own microscopes. Please note that there will be a charge for parking on campus on weekdays between 8am and 6pm.

For single rooms, the cost of half-board (which includes a two course evening meal with tea or coffee) will be £463.31 for 7 nights, while B&B only will cost £358.31. For two people sharing a twin room, the cost per person will be £311.66 for half board and £206.66 for B&B. Any DF members who are local to the area and would like to attend field days will be very welcome to join us and should contact the Secretary.

We will start taking bookings from November 1st 2023.

To book a place on the meeting a deposit of £100 is required, with the remaining amount payable by the beginning of June. The preferred method for payment of your deposit is by bank transfer using the following details:

Dipterists Forum
NatWest Bank
Sort code 60-60-08
Account no. 48054615

Please add your name to the payment reference AND send an email (including any dietary requirements and whether you would like to opt for half-board or B&B) to both the Treasurer (Phil Brighton) and the Secretary (Jane Hewitt), who will be coordinating the administrative arrangements. If booking a twin, please ensure that we know who will be sharing your room!

For those who would prefer to pay by cheque, this should be sent to the Treasurer. Again, please email the Secretary to let her know you are planning to attend.

DF Secretary, Jane Hewitt (jane.e.hewitt@gmail.com)



John & Barbara Ismay and Malcolm Smart at Roudsea on our 2013 field meeting

County Recorders

Dipterists Forum

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

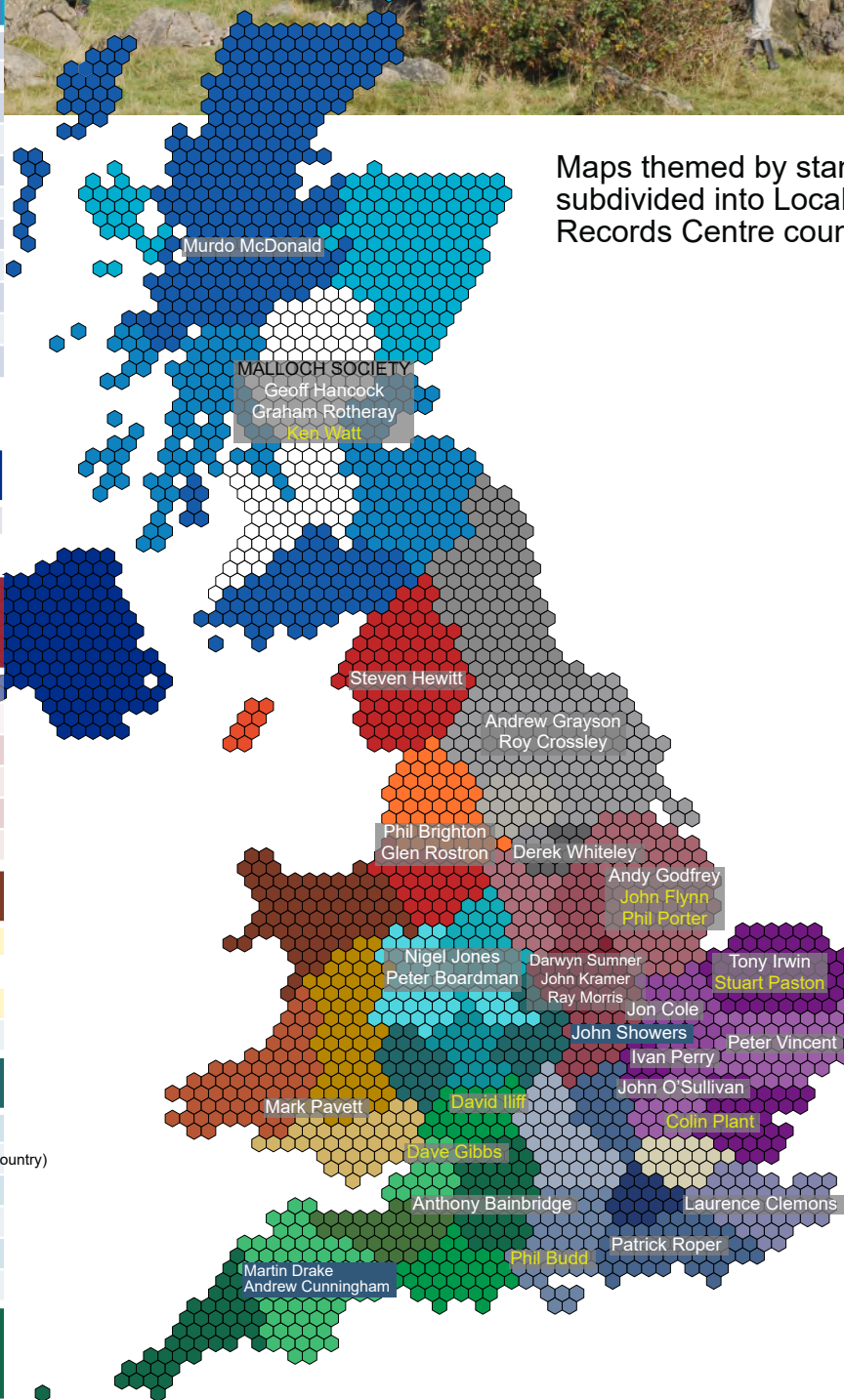
Ireland
CEDAR (Ulster Museum)

North West England
Cumbria Biodiversity Data Centre
Greater Manchester LRC
Lancashire Envi. Record Network
Merseyside BioBank
rECOrd (Cheshire)
Isle of Man

Wales
North Wales (Cofnod)
Powys & Brecon Beacons
South-East Wales
West Wales BIC

West Midlands
Staffordshire Ecological Record
EcoRecord (Birmingham & Black Country)
Herefordshire BRC
Warwickshire BRC
Worcestershire BRC
Shropshire EDN

South West England
Bristol ERC (BRERC)
Cornwall & Isles of Scilly - ERCCIS
Devon BRC
Dorset ERC
Gloucestershire Centre for ER
Somerset ERC
Wiltshire & Swindon (WSBRC)



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

North East England

North & East Yorkshire EDC
West Yorkshire
North East
Rotherham, Doncaster
Sheffield
Barnsley

East Midlands

Leicestershire & Rutland ERC
Lincolnshire ERC
Northamptonshire BRC
Nottinghamshire
Derbyshire (closed)

East of England

Norfolk Biodiversity Info. Service
Bedfordshire and Luton
Cambridgeshire & Peterborough
Hertfordshire ERC
Essex (closed)
Suffolk

Greater London

Greenspace Information for G. L.

South East England

Hampshire BIC (HBIC)
Thames Valley ERC
Kent & Medway BRC (KMBRC)
Surrey BIC (SBIC)
Sussex BRC (SBRC)
Buckinghamshire & Milton Keynes
Isle of Wight

The dipterists indicated have a good local knowledge and work closely with their LERC. Blue background = organised Regional Groups. Yellow text = hoverflies only

Micropezids & Tanypezids Stilt & Stalk Fly Recording Scheme

Newsletter 5

Spring 2023

Recording Scheme - News

A fairly intensive few sessions on data-gathering throughout the UK and Europe and even a brief foray into the Nearctic has led to both an improvement in Open Data contributions and biogeographical perspectives.

NBN Atlas now has the Open Data, up from 5373 to 6409 as shown opposite. Clearly I'm able to do the maps long before the data upload gets processed (takes about a month), starting with a few selected ones for this newsletter.

The website gets those maps too, check it and you'll find both old and new ones.

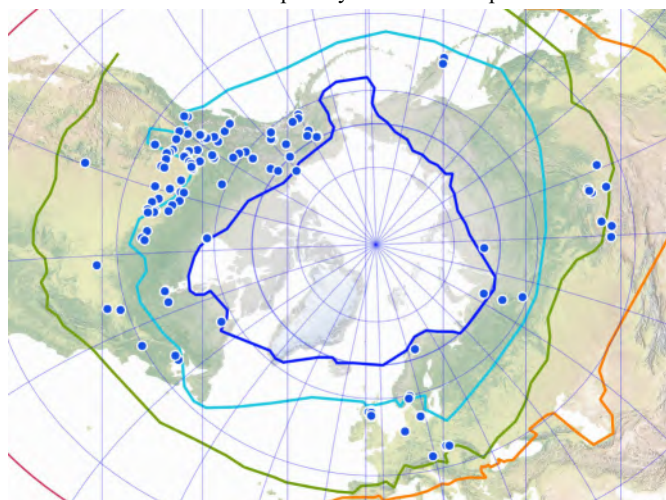
The European Atlas gets an update too, this time with points distributions rather than being country-based (as in my Researchgate preprint at <https://doi.org/DOI: 10.13140/RG.2.2.34834.99529> with ~250 reads) If you've any work scheduled in this group then the website maps are the most current.

World Atlas. Again just the Calobatinae. The rest of the Palaearctic was a little tricky; papers in Russian, Korean and Japanese languages stretched the abilities of the OCR in my pdf reader and my use of online translators but I think I got them all. In contrast the Nearctic data was a breeze, half their museums seem to have uploaded to GBIF and the missing stuff I scanned from the maps in:

Merritt R.W. & Peterson B. V. 1976. A synopsis of the Micropezidae (Diptera) of Canada and Alaska, with descriptions of four new species. Can. J. Zool. 54: 1488-1506.

All these world atlas maps are to be found on the Scheme's website at <https://micropezids.myspecies.info/node/385>

One outcome is that we can portray an Holarctic species:

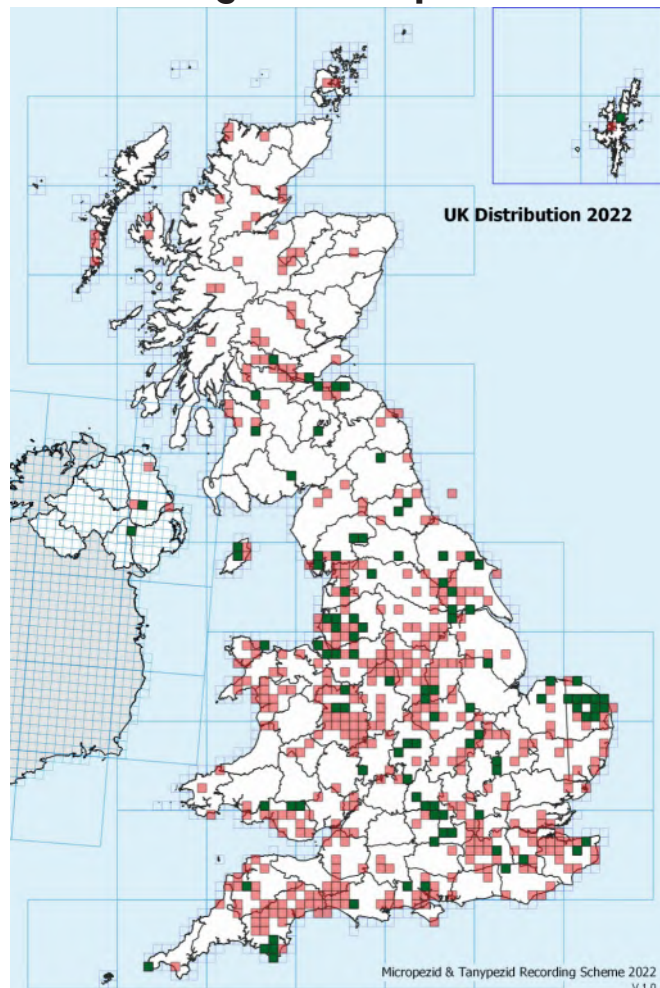


Cnodacophora stylifera which, according to Ozerov (1990) is synonymised with the Nearctic *Cnodacophora nasoni* Making this a Boreal (teal line) or high altitude Temperate species. The block to the right is Mongolia, the rest of the eastern Palaearctic is even more inhospitable for entomologists



Fingered Strider (*Neria commutata*) photo ©Darwyn Sumner

UK Recording Scheme Open Data 2022



Recent records to 2022. All are publicly accessible through NBN Atlas. Dark green 10km squares are 2021/22 records, mainly through iRecord & iNaturalist. Pale red squares are from the 2011-2020 decade. Recent hotspots due to a Dipterists Forum field week in Norfolk. Plenty more promising old and new ground to explore. Thanks to everyone for their contributions so far.

Contact the Recording Scheme if you've any more or simply add them to iRecord or if images then iNaturalist is preferred.



European Micropezids & Tanypezids at <http://micropezids.myspecies.info/>

DIPTERA: Superfamilies NERIOIDEA (Micropezids) - Families Pseudopomyzidae & Micropezidae + DIOPSOIDEA (Tanypezids) - Families Diopsidae, Tanypezidae, Strongylophthalmyiidae, Megamerinidae & Psilidae

Darwyn Sumner

Online version of this newsletter (with hyperlinks) on the [Newsletters](#) page

Note that the Scratchpad website for this scheme [has now been closed](#) to further editing



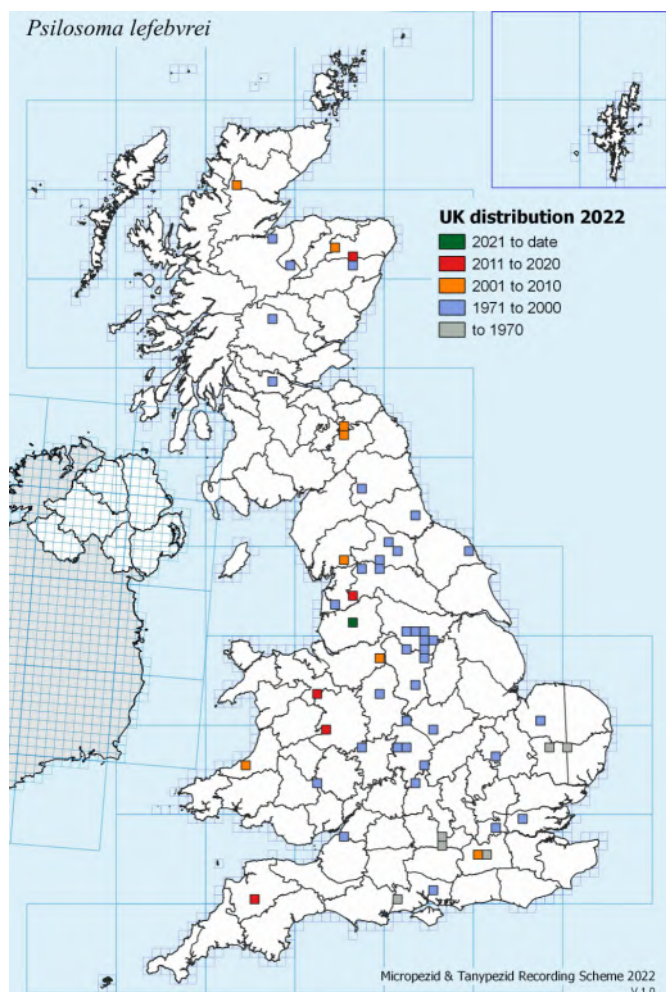
Featured species

Whatever happened to the Atlantic Pierrot?

Psilosoma lefebvrei (Atlantic Pierrot)



Identification tips from Jessica Joachim on her 2018 blog <https://jessica-joachim.com/insectes/dipteres/psilidae/psilosoma-lefebvrei/>



The map suggests a disturbing decline in *Psilosoma lefebvrei*, at one time widespread its range has now shrunken considerably to only 6 sites in the last decade and only a couple of records on iNaturalist.

Peter Chandler (1975) reported it as frequent in Scotland and the north of England. Peter collected it on Foxgloves (*Digitalis purpurea*). Check your finds carefully and don't mix this up with *Psila* spp. (1 notopleural bristle), it can be confirmed using the keys of either Jocelyn Claude or Paul Beuk. Post suspects on iNaturalist so that Jocelyn sees them.

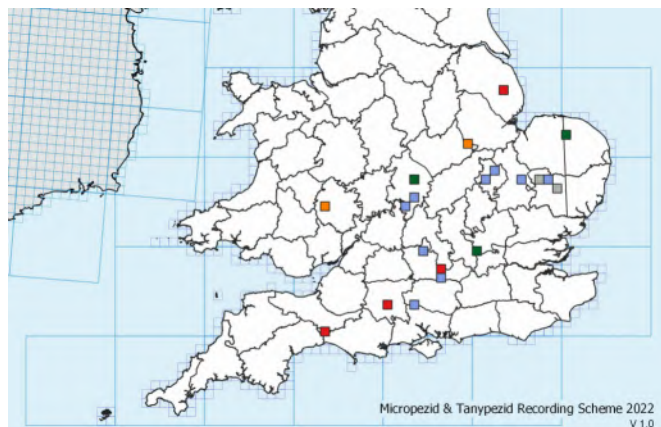
Tanypeza longimana (European Harlequin)



The fifth occasion I've found this species, my first from the UK, at [Whitwell Common SSSI](#) in East Norfolk last year.



Alan Stubbs included this discovery in his regular *British Wildlife* Diptera column and so my photograph was used as an illustration.

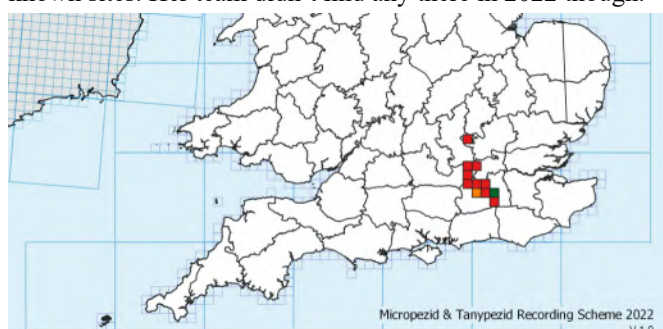


In mid June 2023 it was additionally recorded in Jersey by Jody Robert.

Rainieria calceata (Beech Échasseur)



Though commonly encountered in certain parts of Europe, this remains a UK prize due to the scarcity of its habitat here. Just two additional UK records this year (Paul Brock on Flickr & Paul Davis on iNaturalist), both from its known stronghold in the Windsor Forest region. The publicity we give to this species was tracked down by Helen Read, an environmental consultant on veteran trees at Burnham Beeches, one of its known sites. Her team didn't find any there in 2022 though.



It was however re-found on Corse in 2023, the first record since Séguy reported it in 1934.

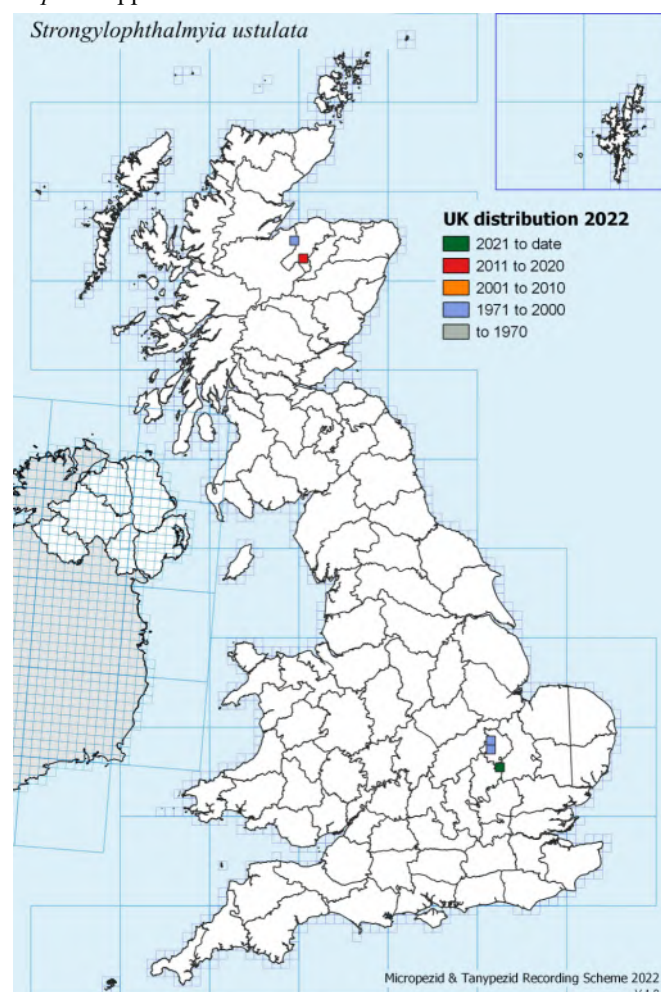
Strongylophthalmyia ustulata (Western Juggler)



A good year for this species in Europe with 5 records, one in France by Marie Lou Legrand (*renko*), another in the Netherlands by Rob Westerduijn both on iNaturalist. On Diptera.info a Spanish one (pictured) by *picoverd* in the Pyrenees is at the southern end of its range and the Saxony one is by Marion Friedrich. Thanks to Jere Kahanpää for help in confirming them.

The UK record was by Ivan Perry (reported in the latest Dipterists Digest) a career "one-off" by an experienced dipterist so don't expect to emulate them.

It's an unremarkable beast, the only distinguishing feature being the nominative "ball-shaped" eyes though I observe in *renko*'s superb images that the mouthparts are distinctive and the wing tips are infuscated. Keys in Krivosheina (1982), specimens amongst your sweepings near Aspen or other *Populus* spp..



Austria

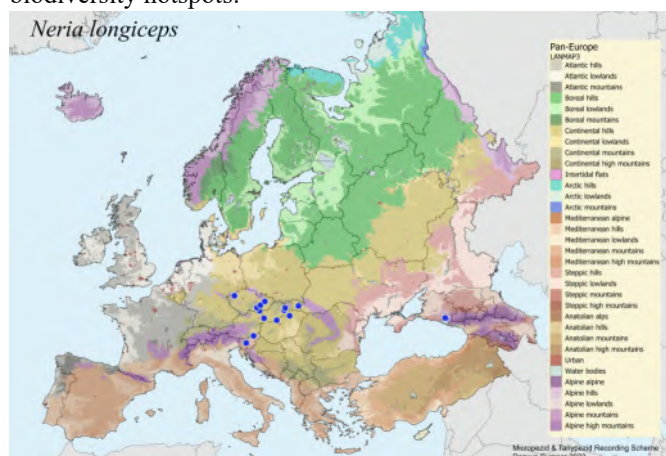
Neria longiceps (Long-headed strider)

An exceedingly rare species, so much so that only nine papers refer to it, and five of those are country checklists. There are no figures of the male genitalia to be found in any of them, however the striking appearance of the head serves to identify it.



Neria longiceps female [Gernot Kunz on iNaturalist]

Restricted to the Alpine-Carpathian corridor and the Caucasus biodiversity hotspots:



An Austrian checklist?

Considerable interest was shown by several Austrian dipterists in the above find by Gernot Kunz on iNaturalist, so much so that the discussion there (<https://www.inaturalist.org/observations/160211655>) resulted in them all chipping in with lists of species they knew from Austria. Validating them all and collecting them together for a list on the Scratchpad site is not feasible any longer but the potential exists for a most valuable paper in the future.

Palaeobiogeography

The Schizophora are the most recently evolved group of Diptera, recent DNA work can trace them back to 80-60mya. The Micropezidae arose soon after South America and Africa separated and probably before South America's connection to Antarctica (60-40mya) was lost (perhaps accounting for the presence of *Calycopteryx mosleyi* on the Heard Is. & *Badisis* in Western Australia.) Later, when Africa met Eurasia and various mountain ranges arose, the Calobatinae diversified in hotspots evidenced by the finding of an early Oligocene (25-23mya) fossil: *Calobata (Neria) rottensis* Statz, 1940, in Chattian lacustrine shale in Germany.

Intriguingly *Neria longiceps* seems to have stuck close to its origins in the Alpine-Carpathian corridor + Caucasus biodiversity hotspots whilst other Calobatinae have spread much further, across the Palaearctic with one getting across to the Nearctic and becoming Holarctic (*Cnodacophora stylifera*) whilst others may have diversified in the New World or their eastern Palaearctic progenitors are lost or undiscovered. Perhaps there are yet others awaiting discovery in the European hotspots.

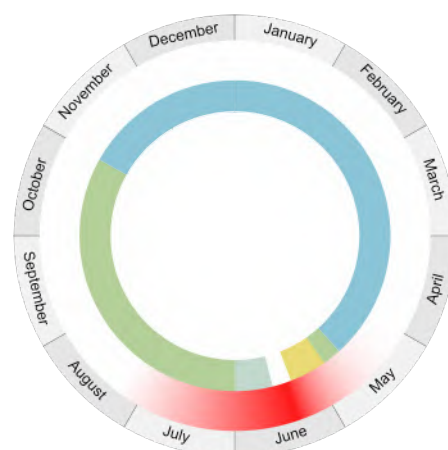
My [World Atlas of Calobatinae](#) maps them all.

G. Statz. 1940. Neue Dipteren (Brachycera et Cyclorhapha) aus dem Oberoligozän von Rott. Palaeontographica Abteilung A 91:120-174

Life-cycle investigations

For clues as to where the Micropezids & Tanypezids might be breeding it's difficult to do better than Peter Chandler's 1975 account of plant associations in the Psilidae. Though a number can be tracked down due to host-plant specificity (e.g. *Chyliza*, *Chamaepsila*) or fungi/tree associations (*Rainieria*), many are simply generalised feeders on decaying plant material in wet situations (not aquatic) such as riparian wetlands. Innumerable diptera species favour that life style so the chances of narrowing down any of the Calobatinae (for example) to anything specific are remote. By the time their larvae have dispersed in their favourite "soup" the chances that any extraction method will have of detecting them will be low, the same proportions as that of the adults amongst most other diptera in that particular habitat - and far less obviously identifiable.

Outer wheel: red = sightings of adults (*Neria* sp. UK)



Inner wheel immature stages: Blue = diapausing instar 3 larvae, green active instar 3 larvae, yellow = puparia. White = ova, pale green are the instar 1 & 2 larvae. Estimated from Barnes, 2016.

The above diagram shows a typical life-cycle, based on research by Barnes. Much of the larval (inner circle) cannot easily be investigated but observations of adults may give clues. Ovipositing is rarely observed, mating pairs scarcely seen either. Early and mass emergences can be detected though, *Neria commutata* for example was observed freshly emerged in the UK this year (a hot June) on the 3rd, then in considerable numbers (>50) a week later with numbers declining only a little over the next few days. The opportunity to further study dispersal and life-cycles is feasible given well-timed observations of the adults in appropriate sites (<https://tinyurl.com/4y7eeprv>) where metapopulations can be located.

Chandler P.J. 1975. Observations on plant associations of the Psilidae (Diptera). Entomol. Rec. J. Var. 87: 13-17.

Rotheray G.E. 2016. Fieldcraft and closing the knowledge gap between immature and adult stages of Diptera Cyclorhapha. Dipterists Dig. Second Ser. 23: 85-96.

Barnes J. 2016. Biology and Immature Stages of Comptosia univitta (Walker, 1849) (Diptera: Micropezidae: Calobatinae). .

iNaturalist projects



This Scheme's [iNaturalist project](#), set up in May 2020 is steadily growing. It now has 22 members, users signed up to keep an eye specifically on this group. By the end of June 2023 the number of observations across Europe had risen from last year's 1100 to 2620 and the list of species stood at 51.

The project is clearly encouraging more recording. More than 50% of UK (image) recording is now through this site. There has also been a good deal of positive feedback occasioned by my habit of providing a link to each taxon on my Scratchpad site when confirming an identity. Hopefully contributors go and read that before confirming my ID.

I'm indebted to Jocelyn Claude (France), Sam Rees (UK), Erikas Lutovinovas (Lithuania), Nikola Szucsich (Austria) & Jere Kahanpää (Finland) for showing an interest and helping to raise many to Research grade, a good example of the effectiveness of international collaboration. Thanks too to others such as Katja Schulz (USA) and Gernot Kunz (Austria) and several more for the many interesting and informative exchanges there.

Do participate by joining the project as a member, there are always many unconfirmed ("needs ID") records and plenty of creatures out in the field waiting for you to find.

A second (UK) project was set up in 2021:



Many thanks to those confirming my personal records so that I could process them through iRecord (and thus get them on to NBN Atlas). Thanks too to Jocelyn who stepped in to do the many trickier *Chamaepsila*

By the end of June there were 364 observations of 24 species via 151 observers, 55% of them identified by 53 identifiers. Membership rose to 6, presumably those in the UK with a particular interest in this group. Do feel free to join, every project you join shows up alongside your posted image so that you can see which Recording Scheme you've contributed to - join as many Dipterists Forum RS projects as you wish.

<https://www.inaturalist.org/projects/dipterists-forum>

I check the iNaturalist project pretty much daily (a bit like checking email but with the potential of exciting new discoveries) and that team of 53 identifiers do so somewhat less frequently. The records all get fed into iRecord, but images simply uploaded to iRecord alone are infrequently checked by their sole verifier. There's no team in i(Record)

Previous Newsletters

1. Stilt & Stalk Fly Recording Scheme [Newsletter 1](#)
2. Stilt & Stalk Fly Recording Scheme [Newsletter 2](#)
3. Stilt & Stalk Fly Recording Scheme [Newsletter 3](#)
4. Stilt & Stalk Fly Recording Scheme [Newsletter 4](#)

Identification

Online keys

There are a number of methods of constructing dynamic online keys; some, such as Paul Beuk's online keys to Psilidae seem to be text and couplet based. Others are somewhat more complex to build as they are based upon weighted matrices of characters. One such was developed by the UK's Field Studies Council, the [FSC Identikit](#)

FSC's Biolinks Projects funding has ended and the project consequently discontinued. Thus some of the support facilities are no longer available and some links broken (e.g. the help forum) due to FSC's revision of their website and staff redeployment.

The GitHub pages at the above link still appear to be functional however and presumably the downloadable kit still operates. Developing such matrices results in a desktop version which can be endlessly modified then recompiled to produce a satisfactory key (see their [Opiliones key](#)). It can also be shared between collaborators. To make that key then available online requires that it then be hosted somewhere.

This scheme has developed two which FSC kindly hosted (and still do) since the Scratchpads were not suitable vehicles for such hosting.

They are as follows:

1. **European [Psilidae](#)**

An initial experiment so not as good as those of [Beuk](#) or [Withers & Claude](#)

2. **European [Micropeza](#)**

Adequate but the Visual key below is an improvement

A third one has now been begun:

3. **World Calobatinae**

Collaborators are invited, workers across the Holarctic may be contacted when any progress has been made. Many illustrations and images yet to be found or drawn and I'll need somewhere to host it to demonstrate a first version.

Visual keys

The following were included in previous newsletters:

1. Micropeza (European) in Newsletter 3
2. Loxocerini, Chylizinae (European) in Newsletter 4

Scheme Publications

Preprints: Though I've had offers from journals to publish items arising from this Recording Scheme, the decision to publish them as preprints on **ResearchGate** seems to have been prudent. Anything containing distribution maps or phenology reflects the state of knowledge at a particular point in time and so such fast publishing has proved valuable. The recent 20% increase in our UK records underlines this.

The following preprints are now accessible ...

Sumner, D. P. (2018). Vernacular names: European Micropezids & Tanypezids (Diptera, Neriioidea & Diopsoidea). Preprint, A 3(3 V2), 1–14. <https://doi.org/DOI: 10.13140/RG.2.2.10298.31688>

Sumner, D. P. (2018). Observations on *Phytomyza orobanchia* Kaltenbach, 1864 (Diptera, Agromyzidae) and *Chyliza extenuata* Rossi, 1790 (Diptera, Psilidae), both new to Wales, on Ivy Broomrape (*Orobancha hederaceae*). Preprint, 1(2:V1), 7. <https://doi.org/DOI:10.13140/RG.2.2.31761.35686>

Sumner, D. P. (2018). Biogeography, population dynamics and status of *Micropeza lateralis* Meigen, 1826 (Diptera, Micropezidae) in Europe. Preprint, 1(3 V1). <https://doi.org/DOI: 10.13140/RG.2.2.15823.00160>

Sumner, D. P. (2018). European Atlas: Micropezids & Tanypezids (Diptera, Neriioidea & Diopsoidea). Preprint, A 1(1 V5), 1–94. <https://doi.org/DOI: 10.13140/RG.2.2.34834.99529>

Sumner D.P. (2021). Biogeography, Phenology & Status of Micropezids & Tanypezids (Diptera, Neriioidea & Diopsoidea) in the UK. Dipterists Forum Report: Stilt & Stalk Fly Recording Scheme, A(11 V1), 48 <http://dx.doi.org/10.13140/RG.2.2.35312.38407>

The above ResearchGate preprints have been consulted widely by researchers and cited a few times.

Online: Updates to Atlases both European & UK as maps with occurrences as points, some extending to Palaearctic and Holarctic regions. Publishing online is no longer as feasible due to Scratchpad closures though most maps are available on this scheme's site. A Researchgate update to atlases may be possible in the longer term.

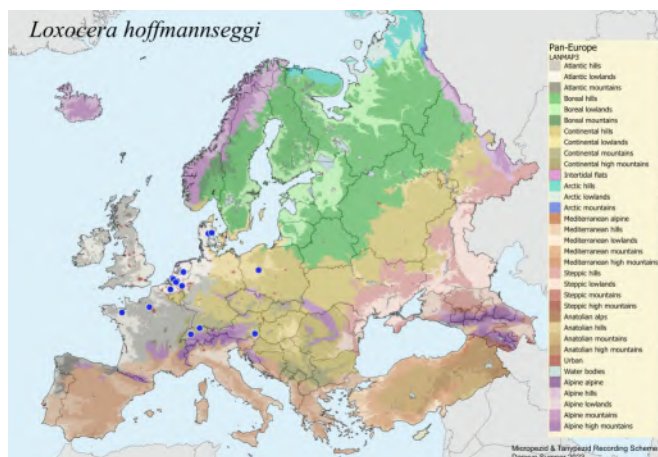
In prep. A number of keys and articles on the biology, ecology, biogeography, palaeogeography and morphology of various taxa, notably the Calobatinae & *Tanypeza longimana*.

Recent Publications

Claude J. & Beuk P. 2023. The Psilidae of the centennial Botanic garden Jean Massart (Brussels-Capital Region, Belgium): five new species of Belgian Diptera with an updated Belgian checklist. *Belgian J. Entomol.* 134: 197–203.

Milkowski M. & Tatur-Dytkowski J. 2022. Rediscovery of the Rust Fly *Loxocera hoffmannseggii* Meigen, 1826 (Diptera: Psilidae) in Poland. *Dipteron.* 38: 32–37.

In Polish. Some valuable habitat and occurrence observations, though lacking lat/long geospatial coordinates. The authors observe that Poland was omitted from *Fauna Europaea* (2013)*. Some Polish records are on iNaturalist (and GBIF) and the species is referenced in the European Atlas (Sumner 2018) and current work on this scheme's site:



The closure of the Scratchpad site did not allow any opportunities for the Polish author's records (not on GBIF) to be interpreted and included in the above map. Their map adds three more locations in Poland, one from a *Fauna Polski* paper (not Open Access.)

**Fauna Europaea* is "outdated" (Martinez pers. comm., 2023) and does not cite published sources of species occurrences which clearly extensively mismatch with published data (Sumner, 2018)

Scratchpads scratched

In many ways the ideal format for Recording Scheme websites the Scratchpads lost their support from the UK's Natural History Museum (London) much to the dismay of hundreds of site owners across the world. The sites themselves will remain functional to enquirers as usual but they will be frozen for continued amendment by their managers and operators.

Though alternative website templates (e.g forums, blogs, galleries) have been investigated, none provide the taxonomic backbone to such a complex content management system. Indeed rebuilding such a template may take years and a considerable amount of money. A small international consortium is currently investigating options amongst the biodiversity informatics community and though it may well be that a less sophisticated model of low cost may deliver around 80% of the capabilities of Scratchpads it is likely that a full implementation may take one or two big funders and some crowdfunding.

About the consortium

This "SOS" (Save our Scratchpads) group was initiated and led by John P. Sullivan (USA) and joined by many others, including 3 UK Diptera Recording Schemes, others studying fish, spiders, plants, beetles, myriapods and several others throughout the world together with a couple of developers and individuals involved in some pretty hefty international biodiversity informatics projects. The group, all anxious to explore possible ways forward so as to continue their research, has met several times and canvassed various

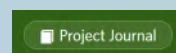
interested or involved parties. In the stories being told the picture emerged that Scratchpads were one component of a multi-million euros enterprise that achieved a great deal.

Sustainability was one budget element they overlooked though, one could hardly apply the term "successful" to an enterprise that recruits free amateur expertise then expects these unwaged naturalists to also shoulder the costs of their continued endeavours.

GBIF Forum discussion at <https://tinyurl.com/2p8xb3fz>

In the meantime this Recording Scheme has no alternative taxonomic content management website to transfer its focus to. Nor, given the short notice of 6 months to 1st September, is there any longer a place to store resources such as images, atlases & other biogeography, phenologies, bibliographies, newsletters, publications, keys and guides etc.

There remains one location though for any messages regarding progress: the **Project Journal** on this Scheme's iNaturalist project at <https://www.inaturalist.org/projects/european-micropezids-tanypezids>



News regarding sustainable solutions and free hosting costs (unwaged volunteer!) will ultimately be placed there. It's just a simple blog but it's an editable spot right now.

Countries and regions are thirsty for summarized data and insights for policy-making but we are running short of tools for managing the data (Martinez pers. comm., 2023)

Hoverfly Newsletter

Number 74
Autumn 2023
ISSN 1358-5029



Copy for **Hoverfly Newsletter No. 75** (which is expected to be issued with the Spring 2024 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 November 2023. Given the size limitations it may be worthwhile to send your articles in good time to ensure that they are circulated with the bulletin, in which newsletters are restricted to a maximum of eight pages. My thanks to all contributors, and also to Martin Matthews for his meticulous proof-reading of the text.

The hoverfly illustrated at the top right of this page is a male *Dasysyrphus pinastri*

HOVERFLY RECORDING SCHEME

UPDATE: Spring 2023

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

Progress to date

During the winter, Stuart took on the ongoing gargantuan task of incorporating 2022 data into Recorder. This is no easy process as it involves a lot of checking and cleaning of data (even though Roger does quite a bit of preparatory work before it gets to Stuart). Thus, by the spring, the dataset had grown to 1,731,931 records (Figure 1). As you will see, the numbers of records for 2022 are somewhat below those for 2020 and 2021 but that is to be expected because it takes quite a long while for records to arrive and they continue to build up over several years.

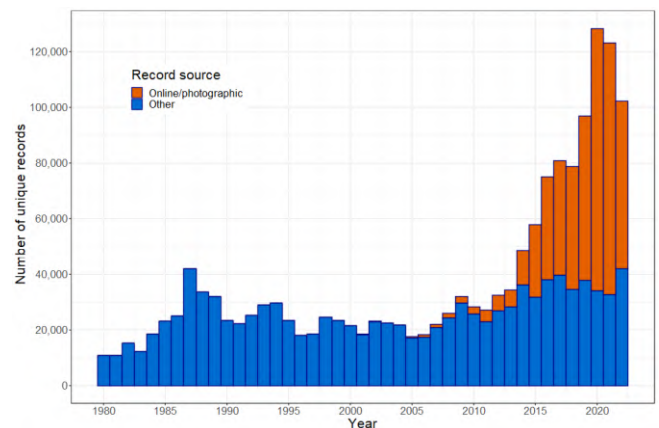


Figure 1: Number of unique records (i.e. unique combinations of species, grid reference and date) received per year from 1980 to 2022 also showing the number based on photographs and online submissions.

The number of contributors to the scheme has risen commensurate with the growth in records, as shown in figure 2. This growth is heavily influenced by the iNaturalist platform, which is dominated by individuals who submit occasional records.

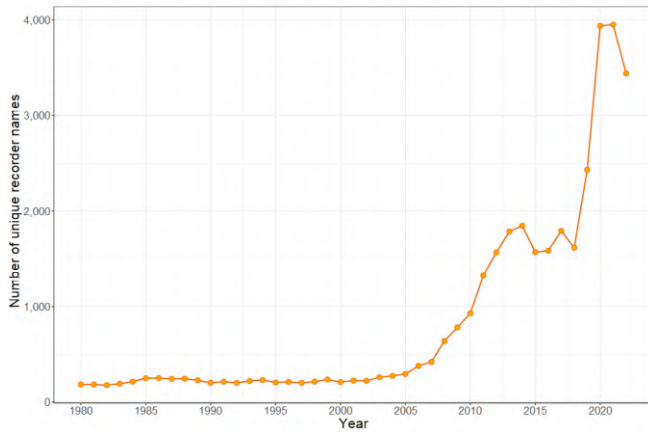


Figure 2: Number of unique recorder names from whom records were received per year.

Coverage is also very patchy, as illustrated in figure 3, which shows that a very high level of recording happens in a small number of places, predominantly in urban areas.

Looking at the levels of activity across the country it is clear that although recording effort varies hugely from hectad to hectad, most parts of England and Wales have been visited. The problem of coverage in Scotland is also obvious. There are far fewer centres of population and comparatively few recorders, so coverage is a lot weaker. It would be great to improve this situation so, if anybody is thinking of where to go on holiday next year, there are some obvious deficiencies in the dataset! Recording in Scotland is not terribly easy, however. In addition to the weather, species diversity is a lot lower and is dominated in many places by *Bacchines* and *Chrysogastrines*, which are best sampled by sweeping and often require microscopy to arrive at a reliable determination.

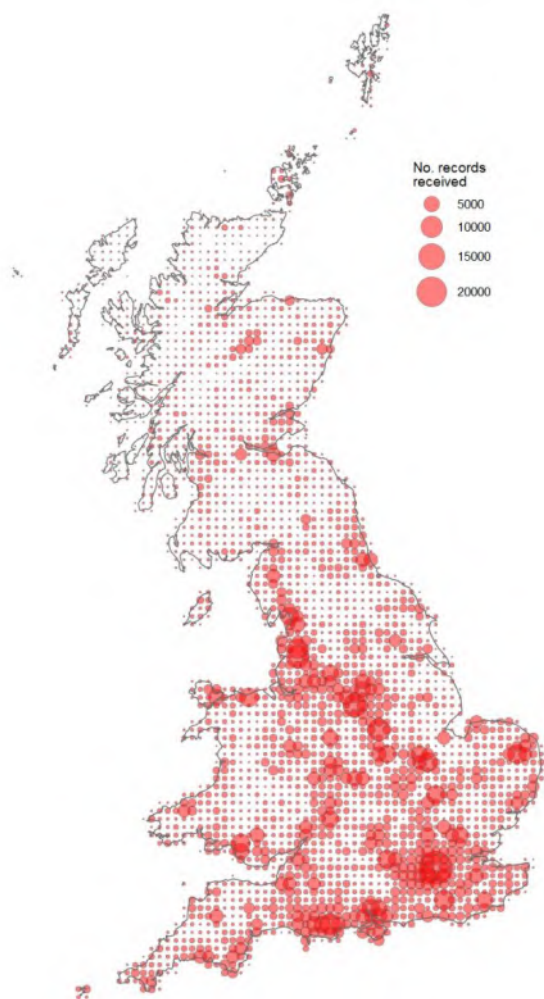


Figure 3: Coverage - the numbers of records received from each hectad.



Figure 4: Coverage - hectads from which records have been received categorised by the date of the most recent record. (the darkest spots relate to 2020 and beyond).

One of the questions lots of you might be asking is 'it is all very well amassing all these records, but what do you do with them?' This spring an obvious answer emerged: the data were fundamental to Dipterists Forum's submission to the House of Commons Select Committee Inquiry into insect decline and food security. The picture is pretty depressing, as shown in Figure 5.

The reasons for this decline have yet to be agreed upon, but we are pretty convinced that the overriding modern driver is climate: a combination of heatwaves and droughts that are devastating for larval stages, especially those that favour humid places or wet soils. After all, a larva that lives in mud is unlikely to fare well if the water-body it inhabits dries up and turns into 'concrete'. Unfortunately, the landscape in which this problem is most prevalent largely overlaps with areas of highest agricultural activities and consequently a link between agriculture and decline predominates the thinking of many observers. Dipterists Forum's submission sought to highlight the issue of climate change; not least because it is likely to be affecting all aspects of ecosystem function. The DF submission can be viewed [online](https://committees.parliament.uk/writtenevidence/120837/pdf/) at <https://committees.parliament.uk/writtenevidence/120837/pdf/> together with the many others that came from other individuals and organisations.

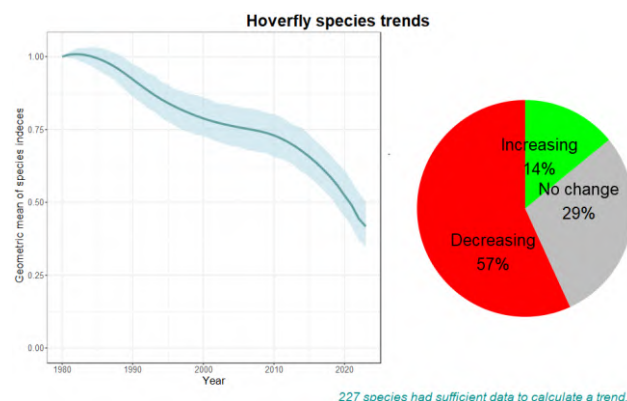


Figure 5: Summary of trends showing the geometric mean of index values calculated for each species and year and the proportions of species categorised as Increasing or Decreasing for 227 species where records were available in at least $\frac{2}{3}$ of the years covered (1980-2022).

Coverage for Ireland

During the winter, Stuart and Roger ran a training course in Belfast. As part of preparations for that event, Stuart prepared a set of maps and a checklist for Ireland based on one compiled by Tom Gittings (2020) but using names from the Checklist of Diptera of the British Isles compiled by Peter Chandler (July 2022 version). The document can be downloaded from the files section of the UK Hoverflies Facebook group. It is a one-off, as we do not hold Irish data and we forward data to the Irish Biological Records Centres when we have an accumulation of records (e.g. from the Facebook page).

A new WILDGuide

There have been a number of complications that have delayed the production of the latest edition of *Britain's Hoverflies*. When it emerges, it will be a remarkable book with a massive increase in the numbers of photographs, a small increase in the numbers of species covered, and an expansion of the section on data usage. The timetable is currently unclear, but Stuart and Roger are working on it!

An alternative key to *Eristalis*

Roger Morris & Stuart Ball

A little while ago, we published an alternative key to *Eristalis* in British Wildlife magazine. Clearly, we cannot republish the whole article here, but the basic key is something that really ought to be used by as many people as possible. For this purpose, we have slightly modified the text to simplify it and to address issues that have emerged subsequently.

Key to species

- 1 Front tarsi yellow/orange (occasionally muddy orange)*pertinax*
A large species that is often confused with *E. tenax*. For confirmation check the stigma which is long and well-formed for most of its length.
- Front feet all (or substantially) dark.....2



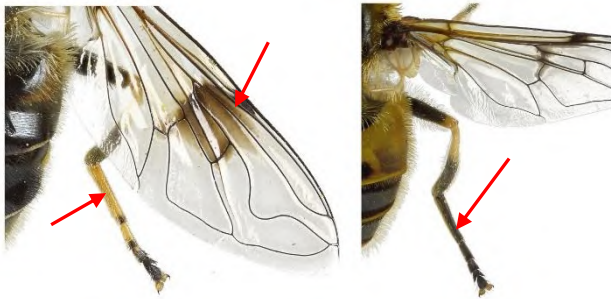
- 2 Hind tibiae completely dark, curved and slightly 'feathered'; eyes with a thicker band of hairs giving appearance of a dark, vertical stripe.....*tenax*
A large species with a dark longitudinal band of hairs on the eyes and the central area of the face broadly undusted. Frequently confused with *E. pertinax*.



- Hind tibia partly pale, no dark band of eye hairs.....3
- 3 Hind tibiae partly black5
- Hind tibia completely orange*cryptarum*
A species that is restricted to a tiny area on the south of Dartmoor, so unless from that area any putative record should be checked with a specialist.
- 4 Hairs on sides of thorax below wings black, (sexually dimorphic, fury bumblebee and solitary bee mimic).....*intricaria*
Confusion is most likely with other bumblebee mimics but *E. intricaria* is the only one with partially pale hind tibiae.
- Thoracic hairs below wings pale. Hair more diffuse and main patterns created by coloured integument.....5
- 5 Sides of thorax and hind femora strongly dusted ashy grey *similis*
Quite a large species that may be overlooked amongst *E. tenax* and *E. pertinax*. Confusion with *E. nemorum* is possible but the stigma of *E. similis* is somewhat elongate.
- Hind femora lack dusting; thoracic pleurae weakly dusted. Generally smaller and more compact species.....6



- 6 Hind metatarsus pale. Wing with a strong, dark cloud, especially in female*rupium*
Beware, from some angles the downward pressed hairs on the hind tarsi of *E. horticola* can look deceptively pale. A northern and western species.
- Hind metatarsus dark. Wing with a less marked cloud..... 7



- 7 Stigma sharply defined almost quadrate*nemorum*
A very tricky character that is best interpreted in conjunction with a view of the face, which has a clearly defined central undusted stripe.
- Stigma more extended, even if as gradually diffused marking 8
This character can be very problematic and deceptive – there is no easy resolution of the problem.

- 8 Mid tibiae at most obscurely darkened at apex (usually clear yellow). Arista short-haired.....*abusiva*
View from the side, as viewing from the top-down may be confused by reflections from golden dusting on the legs.
- Mid-tibiae extensively darkened at apex. Arista with long radial hairs 9
The colour of the legs can be misinterpreted from some angles, especially obliquely from above and is best interpreted from in front or from side views. Beware the radial hairs of the arista can be worn.



- 9 Facial stripe at most weakly developed, normally completely dusted. Hind metatarsus inflated.
..... *arbustorum*
The face is normally dusted but as the fly ages, rubbing may a thin, uneven stripe or undusted areas. Note that in other small *Eristalis* the hind metatarsus is somewhat inflated but not as prominently as in *E. arbustorum*. This character cannot be used to separate *E. arbustorum* from *E. nemorum* or *E. abusiva*.
- Strong facial stripe. Hind metatarsus no thicker than the end of the tibia when viewed from the side.
Wings with well-defined area of dark infuscation *horticola*
The extent of infuscation on the wings can vary and can be misinterpreted from oblique angles, especially face-on.



At long last: *Eristalinus aeneus* recorded in Gloucestershire

David Iliff

When I was appointed the first Hoverfly Recorder for Gloucestershire in 1984 I decided to treat the area to be covered as “Greater Gloucestershire” comprising the whole of VC 33 (East Gloucestershire) and VC34 (West Gloucestershire) and the whole of the present counties of Gloucestershire and South Gloucestershire (even those areas that were outside those two vice-counties). By the end of 2022 the database of Gloucestershire hoverflies contained nearly 30,000 records and the species list totalled 208. When I began recording I noticed that the species *Eristalinus aeneus* did not appear in the records (which date back to the middle of the 19th Century). This hoverfly is of course predominantly found on or near the coast in Britain – I have seen it on the south coast and at the Thames Estuary – with a small number of inland records, but I was surprised that it had not been found in Gloucestershire, particularly at sites close to the Severn Estuary, and assumed that eventually it would appear, but to my amazement none were found even up to recent weeks.

On 3rd July 2023 John Widgery saw and photographed a male *Eristalinus aeneus* that was nectaring on marjoram flowers in his garden at Woodmancote SO9627. Ironically this first county record is well away from the usual coastal sites, but John commented that the hoverfly might have been blown inland on very strong winds that had occurred during the previous night in the Bristol Channel (which had resulted in unprecedented numbers of Manx Shearwater being seen up as far as the lower reaches of the Severn).



Eristalinus aeneus male (Photo: John Widgery)

Photo archive for the early stages of Hoverflies

Geoff Wilkinson, Stephen Suttill and Nicola Garnham

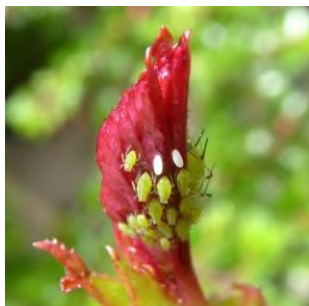
We at the UK Hoverflies Larval Facebook Group have started to collect original, un-cropped images of Hoverfly early stages (eggs, larvae, and puparia) and of associated habitat (e.g., sap runs, aphid colonies) for an image archive. The idea is to have stock images available for identification guides, teaching material and for other awareness raising media. Whilst there is good coverage of the adult stage (e.g., Steven Falk's Flickr account), there is very little available for the comparatively poorly studied immature hoverflies. That is what we seek to change!

At the moment, we are storing images in Dropbox until Dipterists Forum has arranged a more suitable storage system. So far we have 190 images of 20 taxa and their habitats. But we still have a very long way to go! If you would like to contribute to this project, then please do get in touch via the Facebook Group or email smsuttill@gmail.com.

Stephen Suttill has been our point man on the Facebook group and has done a great job in securing original images and permission for their use from members who have been posting some fantastic photos in the group.

We would like to thank the following contributors for permission to use their photographs:

Andy Marquis, Brian Little, Calum James Paterson, Ellie Rotheray, Geoff Wilkinson, Nicola Garnham, Rob Wolton, Stephen Hewitt, Stephen Suttill, Tony Enticknap and Tony Mathews.



Aphids and hoverfly eggs on rose
Photo: Stephen Suttill



Microdon analis puparia
Photo: Tony Enticknap



Parasyrphus nigritarsis larva with Alder Beetle eggs
Photo: Stephen Suttill



Syrphus sp. larva
Photo: Tony Matthews

A Test key to female *Sphaerophoria*

Roger Morris

This key has been adapted from Haarko & Kerppola (2007) and Bartsch (2009). It has not been tested and requires detailed effort from couplet 6 onwards; moreover, I suspect that the final couplet will cause a lot of problems. However, it seems logical to get feedback on experience so that it can be revised and developed to the point where a wider audience can use it. So please give it a go! I will see what can be done about illustrating it in due course.

- 1 Yellow thoracic marginal stripe interrupted.....2
- Yellow thoracic marginal stripe complete.....3
- 2 Antennae black or dark brown.....♀ *loewi*
- Antennae yellow.....♀ *rueppellii*
- 3 Second basal cell substantially free of microtrichia (<50%). Posterior under-side of hind femora with a row of small spine-like hairs and a narrow almost hairless stripe on the posterior face.....♀ *scripta*
Second basal cell more than 60% coverage of microtrichia. Posterior side of hind femora mainly covered with hairs.....4
- 4 Second basal cell 20-40 % bare; markings on tergites 2-4 normally form an uninterrupted band... 5
- Second basal cell almost completely covered with microtrichia. Markings on tergite 2 normally separated by a central dark section. Markings on tergites 3 & 4 either uninterrupted or separated centrally8
- 5 Black band along hind margin of tergite 5 almost of constant width. Tergite 6 as broad as tergite 5 and much broader than tergite 7♀ *taeniata*
- Black band along hind margin of tergite 5 lobed on both sides. Tergite 6 narrower than tergite 5 and slightly broader than tergite 76
- 6 Hairs on sternites predominantly yellow; wing about 40% bare of microtrichia7
- Hairs on sternites extensively black; wing about 20% bare of microtrichia♀ *virgata*
- 7 Lateral margins of tergites 3 & 4 almost completely black.....♀ *batava*
- Hairs on tergites 3 & 4 pale in the anterior half.....♀ *philantha*
- 8 Sternite 3 broader than long..... 9
- Sternite 3 longer than broad ...♀ *bankowskiae*
- 9 Face with distinct broad dark longitudinal stripe; tergites 3 & 4 with large spots tapering towards and barely reaching the margins.....♀ *interrupta*
- Face yellow or with a narrow brown medial stripe; tergites 3 & 4 with narrow spots tapering towards the margins, barely reaching the margins10
- 10 Hind corners of sternite 3 usually with no more than a few black hairs♀ *fatarum*
- Hind corners of sternite 3 usually with 20-30 black hairs..... ♀ *potentillae*



Cranefly News

The Dipterists Forum Cranefly Recording Scheme

For Superfamily Tipuloidea & Families Ptychopteridae & Trichoceridae

Newsletter No 41

Autumn 2023

Editor: John Kramer



Helius. Male genitalia. Photo. M. Ackland

Alan Stubbs MBE !!!

Many congratulations to Alan on being awarded an MBE for services to invertebrate conservation. (See the 'News' section on the 'Buglife' website for the citation.) It would have been very appropriate had he been awarded another one for making Diptera much more accessible to the general population. Without public involvement, attempts to interest politicians in conservation are wasted. Alan's very significant contribution to our community of Dipterists is covered elsewhere in this Bulletin and is evidenced by the 3 volumes of British Flies, the existence of the Recording Schemes, and of the Dipterists Forum itself.

Alan has been working on Craneflies for over 55 years now and so it is very appropriate for the Cranefly Recording Scheme and Cranefly News to signify his National recognition. Over this time he has provided help and encouragement to many beginners (including the Editor), records for the BRC and very many publications from 1967 to the present day. The Cranefly Recording Scheme (CRS) was launched in March 1972 with record cards produced by the Biological Records Centre (BRC) where John Heath was in charge. Alan published the first hand-crafted dot maps of the Ptychopteridae in the Entomologist in 1972. In 1972 the first new cranefly keys were published by Alan in the Amateur Entomological Society Bulletin. Also authored by Alan, the BRC published an Atlas of the long-palped craneflies (Tipulinae) and of the Ptychopterid Craneflies in 1992 – 3.

The publication in 2021 of British Craneflies was a fitting culmination of Alan's work until then. Perhaps Alan's next book on craneflies will be about the Ecology & Behaviour of British Cranefly Larvae? If we are to understand and predict the effect of the environment on craneflies, and the effect of craneflies on our environment, it is the larvae that we must study, and the first task is to identify them

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Alan Stubbs 1990 The beginning of Diptera recording schemes in Britain. Dipterists Digest first series. no. 6. Available on the Dipterists Forum website)

Alan Stubbs, 2021. British Craneflies. BENHS

Also see Cranefly News #40 for the history of the CRS, and 'British Craneflies' for a list of Alan's publications.

Craneflies and Light – Tipulidae.

Geoff Hancock has recently sent me a paper based on some work he did on the Craneflies of Leighton Moss, Lancs. Geoff used a light trap samples of the cranefly fauna from over a period of 7 months in 1972. His results for the Tipulinae are shown in red below. To this I have added in green print, or underlined, those species reported in Cranefly News #40 as having been caught at light. (Thanks also to Rob. Wolton who sent me a list of his MV trap results. These have also been included.)

TIPULIDAE - TIPULINAE

Prionocera pubescens
Prionocera subserricornis
Prionocera turcica

Nephrotoma aculeata
Nephrotoma analis
Nephrotoma appendiculata
Nephrotoma cornicina
Nephrotoma crocata
Nephrotoma dorsalis

Nephrotoma flavescens
Nephrotoma flavipalpis
Nephrotoma guestfalica
Nephrotoma lunulicornis
Nephrotoma quadrifaria
Nephrotoma quadristriata
Nephrotoma scurra
Nephrotoma submaculosa
Nephrotoma sullingtonensis

Nigrotipula nigra

Tipula (Acutipula) fascipennis
Tipula (Acutipula) fulvipennis
Tipula luna
Tipula maxima
Tipula vittata
Tipula (Beringotipula) unca
Tipula (Dendrotipula) flavolineata
Tipula (Lindnerina) bistilata

Tipula (***Lunatipula***) *alpina*

Tipula cava

Tipula fascipennis

Tipula helvola

Tipula laetabilis

Tipula livida

Tipula lunata

Tipula peliostigma

Tipula selene

Tipula vernalis

Tipula (***Mediotipula***) *sarajavensis*

Tipula siebkei

Tipula (***Odanatisca***) *nodicornis*

Tipula (***Platytipula***) *luteipennis*

Tipula melanoceros

Tipula (***Pterelachisus***) *irrorata*

Tipula luridorostris

Tipula mutila

Tipula pabulina

Tipula pseudovariipennis

Tipula submarmorata

Tipula trunctorum

Tipula variipennis

Tipula (***Savtshenkia***) *alpium*

Tipula cheethami

Tipula confusa

Tipula gimmerthali

Tipula grisescens

Tipula holoptera

Tipula invenusta

Tipula limbata

Tipula obsoleta

Tipula pagana

Tipula rufina

Tipula serruliferra

Tipula signata

Tipula staegeri

Tipula subnodicornis

Tipula (***Schummelia***) *variicornis*

Tipula yerburyi

Tipula (***Tipula***) *oleracea*

Tipula paludosa

Tipula subcunctans

Tipula (***Vestiplex***) *hortorum*

Tipula montana

Tipula nubeculosa

Tipula scripta

Tipula coerulescens

Tipula (***Yamototipula***) *couckeii*

Tipula lateralis

Tipula marginella

Tipula montium

Tipula pierrei

Tipula pruinosa

It can be seen that a wide variety of *Nephrotoma* and *Tipula* have been caught at light (coloured print) and those records that are missing (black print) are from the rarer and more local species. This evidence supports the hypothesis that all the Tipulinae are attracted to light. Evidence for Tipulidae species not recorded above from light traps would be gratefully received. Geoff noted that no species of Ptychopteridae were recorded in the light trap samples although *P. albimana* and *P. contaminata* were trapped by Rob Wolton.

References:

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Kramer, J. 2023. Light trapping in Leicestershire - VC 55. Crane fly News #40.

Showers, J. 2023. Light trapping in Northants – VC 32. Crane fly News #40.

Species to be added to the Key to British Crane flies.

Since British Crane flies went to press we have had a number of possible additions to the British list, all of which need to be added to the Crane fly Key. One such possibility is *Helius calviensis* Edwards 1928 (See below). Others dealt with in previous issues of Crane fly News are: *Atypophthalmus umbratus* [CN #39 Autumn 2022], *Dicranomyia radegasti* Stary 1993 [CN #37 Autumn 2021], and *Achyrolimonia neonebulosa* [CN 35. Spring 2020. Also see Crane flies in Glasshouses, below]. This latter species was discovered from a hothouse plant but it has escaped into natural biotopes in the Netherlands and may well do so here.

Do we have *Helius calviensis* in Britain ??

Our French colleague, Clovis Quindroit, has reviewed the genus *Helius* in France and found that *Helius calviensis*, described by F.W. Edwards (Edwards 1928) from Corsica, is widely distributed in western France and fairly common. He identified *H. calviensis* from a photograph of genitalia taken by the late Michael Ackland, from Pymore Fen, Dorset, VC9, present on CCW as *H. longirostris*. It was presumably identified by Michael because it had a pale stigma and dark rostrum.

[Catalogue of Crane flies of the World (CCW): <https://ccw.naturalis.nl>] Clovis also suggests that *Austrolimnophila latistyla* may also be found in Britain. Alan Stubbs, who has taken *Helius calviensis* on Corsica, has contributed the piece below.

The potential occurrence of *Helius calviensis* in Britain. Alan Stubbs

The genus *Helius* is characterised by a long proboscis or rostrum which is bluntly truncated at the apex. The British fauna has long been known to contain three species, *flavus* (Walker), *longirostris* (Meigen) and *pallirostris* (Edwards 1928). It was something of a surprise when *Helius hispanicus* (Lackschewitz) was found on a coastal cliff in the SE Devon (Stubbs, 1992) and this was added to the British list. It was formerly a species assumed to be confined to the Iberian peninsula.

Helius calviensis was discovered at a riverside marsh in NW Corsica (Edwards, 1928). In the decades since then the distribution of this species has become much better known, embracing Iberia, the west Mediterranean including Algeria and Tunisia, as well as the Balkans, North Caucasus and Turkey. However, it was not reported from mainland France until 2021 (Quindroit, et al., 2021). In a review of the French fauna of *Helius*, a distribution map shows that *calviensis* occurs in NW France, including Brittany. In France at least, it is typically found in the company of *longirostris*.



H. calviensis has a very dark stigma. The only other such species is *pallirostris*, a very localised species and often accompanied by *longirostris*. Thus, we might in the past, have assumed all dark stigma *Helius* must be *pallirostris*, as per British keys, and not recognised this 'misfit' species. Notably, Quindroit does not suggest that *calviensis* and *pallirostris* have been found to occur together, but perhaps that possibility cannot be ruled out. Almost certainly *pallirostris* remains the correct identification of most, and probably all British records but caution is necessary. It is well worth checking the colour of the rostrum of all specimens with a dark stigma.

Key differences to specimens of *Helius* with a very dark stigma

Both species, are brown-bodied, and *pallirostris*, at least, is fairly dark. Both species are unusual in having 3 dark stripes on top of the thorax.

H. calviensis: Proboscis (rostrum) **entirely dark**. Inner end of stigma only very slightly beyond level of end of Rs (where it then forks); stigma a bit less compact. Median thoracic stripe strong but the sublateral ones usually fainter. Male genitalia very similar to that of *flavus* (p. 146, *British Craneflies*).

H. pallirostris As its name implies, the proboscis (rostrum) is **pale yellow**, only apex narrowly dark. Inner end of stigma beyond level of end of Rs by at least length of stigma; stigma very compact, about as long as wide. All 3 thoracic stripes strong. Male genitalia highly distinctive (p. 146, *British Craneflies*).

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- Alan Stubbs [alan.stubbs@Buglife.co.uk]

***Phalacrocer a replicata* at Yardley Chase SSSI. Graham Warnes**

A Pond net survey was carried out of a Woodland Pond (ref. unit 17, C7/2) at Yardley Chase SSSI on 17th March 2022. The pond was located in Northampton & Buntingsea Copses, broadleaved, mixed and Yew Lowland Woodland of 64.5 ha.

Environmental data

Conductivity 588 µ/ water temperature 12.9°C, ph 7.5/ water temperature 13.0° (Hanna Instruments pocket testers, accuracy ±0.1) Air temperature 12.0°C, cloud cover 20-30%, no rainfall, strong breeze. During the survey, I caught three late instar larval specimens of the crane fly *Phalacrocer a replicata* and a single pupal record by hand sieve from the margins of a floating moss mat. The moss mat is a mixture of *Drepanocladus aduncus* and *Calliergonella cuspidata*, set amongst young willow. The *P. replicata* pupal record is the earliest recorded on the Yardley Chase site.



Image 1. The habitat of *P. replicata*

The pupal voucher specimen was retained in a petri dish on a damp mixture of *D. aduncus* and *C. cuspidata* at an air temperature of 7-10°C. On 23/03/2022, an adult female *P. replicata* emerged between 08:16 and 11:35 am.

In surveys at a second site, approximately 1 mile to the south, larval and pupal specimens were recorded from the margins of a woodland pond that is amongst a mixture of *C. cuspidata* and *Leptodictyum riparium*. However, the final instar larvae and pupae recorded at this location were in the month of August 2021, the last pupae record being 21/08/2021. The above mosses suggest wetter locations with *D. aduncus* considered an aquatic moss, however, the named specimens can stand drying out and are fairly tolerant of eutrophication.

All voucher specimens of moss collected have been checked and confirmed by Dr Rachel Carter, VC32 Bryophyte recorder and former secretary to the British Bryological Society (BBS).

Rachel has said that she is currently unaware of a Northamptonshire location for *Sphagnum* moss as a recent survey of the last known site recorded no specimens. Rachel believes *Sphagnum* moss to be extinct in the county, and the nearest possible location for it is perhaps Flitwick Moor, Bedfordshire.



Image 2: *P. replicata* pupal case – post emergence



Image 3: *P. replicata* pupal case showing emergence point.

***Tipula (Vestiplex) hortorum* Meigen - the fourth Scottish record. E.G. Hancock**

During Malloch Society excursions in late April 2022 in the Nethy Bridge area, Inverness-shire, a male example of *Tipula hortorum* was collected on the edge of Craigellachie NNR (NGR: NH887124), 29.iv.2022. The purpose of this note is to assess the existing known occurrences in Scotland and correct an earlier record of this species. The NBN Atlas for this species has three Scottish records, the earliest of which is dated 16 March 1964 recorded from 20 Km S of Mallaig at side of main road to Fort William by P.R. Bailey (who lived in Orpington, Kent, one of the first members of the CRS from the 1973 membership list). No further detail is given. Another dot on the map is from Threave, near Castle Douglas, Dumfries & Galloway (Dobson, 1973). Ron Dobson, also in the first membership list using his University of Glasgow address, recorded *hortorum* from two suction trap samples dated between 19 May - 16 June 1967. Note the event date of 29 November 1972 given in the Atlas appears to be the date of publication of the journal. Dobson (1973) commented that *hortorum* was apparently a rare species in Scotland and referred to only one other record known to him from Luss on the west side of Loch Lomond but with no further data. This record has not been incorporated into the NBN Atlas possibly due to a lack of more tangible support.

The third NBN Atlas record is of a female from the slopes of Ben Vrackie, Perthshire on 28 June 1986 and is credited to me. However, it is incorrect as the specimen is an example of *T. (V.) scripta*. In addition to the late date the habitat is not normally where *hortorum* is found. I have established how this happened as my field notebook has an entry for that trip and there is an entry corresponding to this record. However, on examining the specimen in the Glasgow city museum's collection (I deposit vouchers in the various museums I was working in at any one time) it is labelled *scripta*! I think I must have filled in a BRC Field Card to send off that year's records and forgotten that it had been corrected. *Mea culpa*!

To summarise, there are thought to be four valid records of *T. hortorum* in Scotland, two of which are in NBN Atlas but which has a third incorrect submission. The two others from Luss and Aviemore and are not mapped.

References

Dobson, R.M. 1973. Scottish long-palped crane flies (Diptera: Tipulinae). 1. Species taken at Threave Gardens, Kirkcudbrightshire and Ardmore Point, Dunbartonshire. *Glasgow Naturalist* 19: 45-54.

E.G. Hancock

New Records of *Nephrotoma sullingtonensis* Edwards 1938 – John Kramer

This crane fly has for me an almost mythological status, like a mermaid or goblin. Four male and three female specimens were brought by chance to F.W. Edwards at the BM (Natural History) in 1936, having been collected by Miss L. Frederick and Miss H. Wright on Sullington Warren (TQ0914) on 27th June 1936. It is difficult to know why they gave them to Edwards, but they probably didn't say 'We thought these were *Pales maculata* (as *N. appendiculata* was then called) but they don't look quite right to us.' However, we will never know. These specimens are in the collection in the Natural History Museum, but, as far as I know, these are the only British specimens available.

The next record was made by M. Edwards also on Sullington Heath, on 4th June 1983, and another by J. Paul on 10th May 2001. It would appear that no voucher specimens were taken. I have yet to make contact with 'J.Paul' to confirm this, so if anyone can help, I'd be grateful.

I have recently heard from Graeme Lyons that this year on 28 April 2023 there were another sightings of this elusive fly on Wiggonholt Common, (TQ058161) which is near Sullington Heath, although not continuous with it. Graeme writes: *Yesterday, while doing some intense recording for City Nature Challenge at Wiggonholt Common at TQ058161, I found large numbers of a Nephrotoma, most of which were in pairs (from memory, something like 15 or more – they were everywhere),*

I took two males and they were the same species. It keyed to N. sullingtonensis and the genitalia match too. The insects were very much around the Heather to the north of the site, I didn't see them to the south in the wetter area dominated by Molinia and birch. I have two males in alcohol that I will send to whoever wants them, but if anyone else could get there, they could find many live adults right now I am sure. It was that common!

I let Alice Parfitt know, so that she could look for them on Sullington Heath. Given how many there were, could it be that this species has a much earlier flight period than previously thought. I later heard from Alice that, although she did not find it at Sullington Heath, it was present at Hurston Warren, so that is another new site for the record books.'

Have all these sites got the same sandy soil I wonder. At Sullington Heath *Tipula cava* was common, in this, its typical habitat. *N. sullingtonensis* is distinguished, in the first place from *N. appendiculata* by having dark stigma spots (but no dark seams) and the three black stripes on the yellow thorax are merged for a short distance.

John Kramer

***Austrolimophila ochracea* (Meigen 1804)**

I received the letter below from our French colleague Clovis Quindroit, which I sent out to members of the CRS at the beginning of the season, however, Clovis would still appreciate specimens in cop, if you have any.

Dear fellow tipuloid-ologists, I am currently working on separating females of Austrolimophila ochracea (Meigen 1804) and A. latistyla Sary 1977, which are, as yet, undeterminable at species level. (The latter species is really common in all France, and might be found in Great Britain.) In order to do so, I am looking for specimens of the two species in copula. In my area, A. latistyla dominate, but I have not been able to get A. ochracea in copula, this is why I am asking for specimens from the UK, either in alcohol or dry. Copulation is easy to achieve by putting a male and a female in the same box. They usually copulate within 15 minutes.

Please send pairs of specimens to this address:

Clovis QUINDROIT
6 av. Iareveillère
49240 Avrillé
FRANCE

For any question: clovis.quindroit@tutanota.com

*If you collect in France during your holidays, I'll always be interested in your data on all Tipulomorpha.
best wishes, Clovis QUINDROIT*

Baron C.R. Osten Sacken 1828-1906. John Kramer

After my item on Osten Sacken's work on Crane flies in the last issue of Crane fly News #40, Spring 2023, Geoff Hancock was good enough to alert me to the sale of the book 'Record of my Life Work in Entomology' by Baron C.R. Osten Sacken (OS). This was first published in parts in 1903-04 in Massachusetts, USA, and Heidelberg Germany. In 1977, E.W. Classey Ltd. Published a facsimile copy of this work in one volume, with an introductory preface by K.G.V. Smith. I learnt of the existence of this book from Phil Withers who had a copy and recommended it to me, so I am very pleased to read it now.

Reading it not only gives you glimpses into the working conditions and mind of OS but also sheds light on interesting times in dipterology. His descriptions of the personalities he met and worked with, reminds me of John Aubrey's book, 'Brief Lives'. Thus: *It is a strange coincidence that Walsh, Riley and Walsh's successor as State Entomologist of Illinois, Le Baron, all met with a more or less unnatural death: Walsh from a railway accident, Riley from a fall with his bicycle and Le Baron from the consequences of sunstroke* Read this if you want to know about Loew's quarrel with Schiner, Osten Sacken's opinion of Brauer and Mik, or Miks relationship to Brauer !!

Crane flies in Glasshouses – John Kramer

[This article was published in the digital version of Crane fly News #40 and is repeated here to obtain a wider readership.]

***Atypophthalmus umbratus* (de Meijere 1911)**

This species is noted in 'British Crane flies' as captured in 1987 by Alan Stubbs and seems like a new addition to the British List (British Crane flies p350) but it was not included in Peter Chandler's RES Checklist of British Diptera published in 1998, Specimens were discovered in a hot house in Kew Gardens in and they are reported as last seen in 2002. It is one to look out for at Kew, and other similar hot houses where plants from hot tropical regions are grown. The Dome at the Eden Project, Cornwall, might be another site to search. It is recorded as pantropical in the Palaearctic Catalogue. The type locality is given as Djakarta, Indonesia, and it has been recorded in Asia and Israel. If anyone has any information, or any British specimens, there is a paper waiting to be written !!

Figures of *A. umbratus* (see below) are from Catalogue of Crane flies of the Worl [<http://ccw.naturalis.nl>]



Fig 1

Fig 2

Fig. 3

Figs 1&3. *Atypophthalmus umbratus*. Photo M. Andersson, Gothenburg, Sweden. Specimen in greenhouse in Botanical Garden. Fig. 2: *Atypophthalmus umbratus*. Male genitala: Byers 1966.

***Achyrolimonia neonebulosa* (Alexander) (Diptera, Limoniidae) – a new crane fly for the British List** – On 25 September 2019, photographs of a male specimen of *Achyrolimonia neonebulosa* (Alexander, 1924) were posted on the Dipterists Forum website by MJ (Fig. 1). The adult fly had emerged from the pupa (Fig. 2) on 24 September in Bradwell (V.C. 25, East Suffolk, TG5004) from the compost of a plant pot containing an imported plant of *Sarracenia* (a carnivorous pitcher plant) which was purchased from South View Nurseries, Beccles Road, Fritton, Great Yarmouth (V.C. 25, TG4801) on 29 August 2019.



Achyrolimonia neonebulosa: male genitalia



Fig. 2, pupa (Photos MJ)



Figs 1, Figs 3, *A. decemmaculata* (Photo JK).

The assumption is that the larva must have been present in the compost which was imported from the Netherlands, although there are a number of other logical possibilities. It is worth noting that the first Dutch record in January 2005 was from a glass house in Naaldwijk used for growing orchids (Oosterbroek, P. 2009. New distributional records for Palearctic Limoniidae and Tipulidae (Diptera: Craneflies) mainly from the collection of the Zoological Museum, Amsterdam. *Zoosymposia* 3, 179-197). The section where the carnivorous plants are housed in South View Nurseries also houses orchids and so *A. neonebulosa* may be established there, and in other nurseries, and be populating other pots as well.

The specimen was identified from the male genitalia which contrast strongly with the established British species, *A. decemmaculata* (Loew, 1873) (Fig. 3). The wing pattern is similar to *A. decemmaculata* (Figs 5-6) and it is well worth examining the genitalia of any specimens previously identified as *A. decemmaculata* (Fig. 5) in case there has been a misidentification.



Fig 5. *Achyrolimonia neonebulosa* wing (Photo MJ).



Fig. 6. *Achyrolimonia decemmaculata* wing (Photo JK).

This is the first British record for this species, which in nature inhabits woodland. It has a very widespread (Holarctic) distribution, and records range from the United States (Massachusetts) across Europe and Asia to China and Japan.

References.

Stubbs, A.E. 2021 British Craneflies (p350) BENHS

James, M. & Kramer, J. 2020. New Cranefly for the British List. Cranefly News #35

Is this specimen of *Erioptera* a hybrid, a variant or a new species? A question from Martin Harvey



Erioptera flavata (Janet Graham):
<https://www.flickr.com/photos/130093583@N04/32346322056>



Erioptera nielsenii (Esko Viitanen):
https://eskoviiitanen.fi/eriotera_nielsenii.htm

Two versions of the same *Erioptera* sp. from
Crymlyn Bog, south Wales (Martin Harvey)

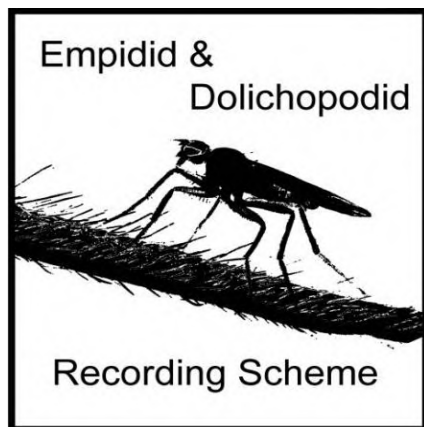
The central photo was taken by Martin Harvey of the styles of a specimen of a yellow *Erioptera* captured on Crymlyn Bog during the Dipterists Forum Summer Field Meeting (8-15 July) this year. The adjacent photos are of the male genitalia of two species nearest in form, both of which have been recorded from the bog. The upper style is closer to *E. nielseni*, although with the point midway instead of at the lower edge. The lower style seems closer to *E. flavata*, with a thickening of the upper angle, although there is no spine.

I think we will have to leave this question hanging in the air, but if members have specimens of yellow *Erioptera* from Crymlyn Bog it would perhaps be worth examining them. Typical *E. flavata* are very distinct, with a strong orange-yellow colouration and the styles can usually be clearly seen with a hand lens. The paler *E. nielseni* are the ones to examine more closely.

John Kramer

The next copy deadline December 20th 2023. Copy to john.kramer@btinternet.com

Thanks to all contributors.



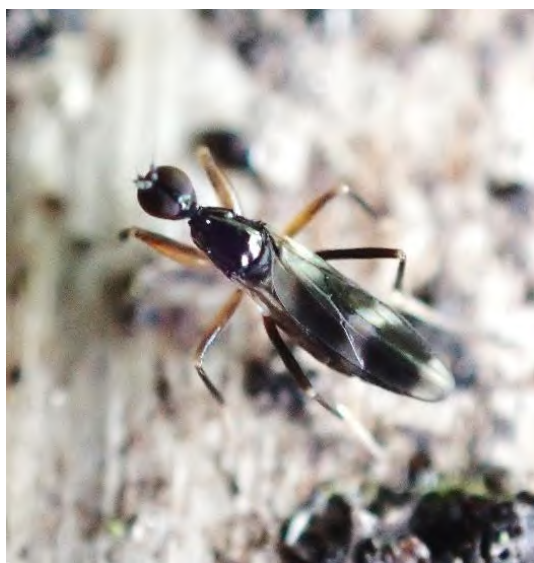
Newsletter No. 28

Autumn 2023

Tachydromia - a gateway drug to the Hybotidae

Stephen Hewitt

The genus *Tachydromia* has the attraction of being fairly easy to recognise, not too difficult to find in the right places, containing enough species (15 in Britain) to make things interesting but not so many as to make the key cumbersome to use. Their autecology is interesting, and they occupy a sufficiently diverse range of narrowly defined habitat niches to make them useful indicator species in some cases. These attributes make the genus an interesting group to study and a good introduction to the wider Hybotidae family.



Tachydromia umbrarum on a tree trunk

Tachydromia larvae probably develop in damp soil, leaf litter or wood-mould, where they are assumed to be predaceous. The adults are opportunistic predators, actively running over bare substrates in search of small invertebrate prey, such as springtails and small flies including Sciarids and Cecidomyiids. They are most often found in sheltered, sunny or lightly shaded situations, often close to wetland of some sort. Several species are associated with exposed riverine sediments (ERS) of different grades from fine sands to coarse shingle, others occur on bare sand or gravel away from rivers or are typically found running on tree trunks at woodland margins or over the leaves of herbaceous plants in various situations, including urban gardens. *Tachydromia* are under-represented in sweep net samples because of their tendency to run on firm surfaces and their reluctance to fly. As a result, it

is more effective, and satisfying, to search for them directly on their preferred substrates. One then has the challenge and frustration of trying to directly poot these fast-running insects without causing them to fly off and often getting a pooter-full of sand in the process. Specialist *Tachydromia* of bare ground and ERS can be found sheltering under stones and debris or beneath the leaves of plants such as dock growing on the substrate. That said, on sunny days, bare and thinly vegetated ground may become too hot for *Tachydromia* and then they will take shelter in the shady canopy of over-hanging trees and other foliage, where they can sometimes be swept in numbers.

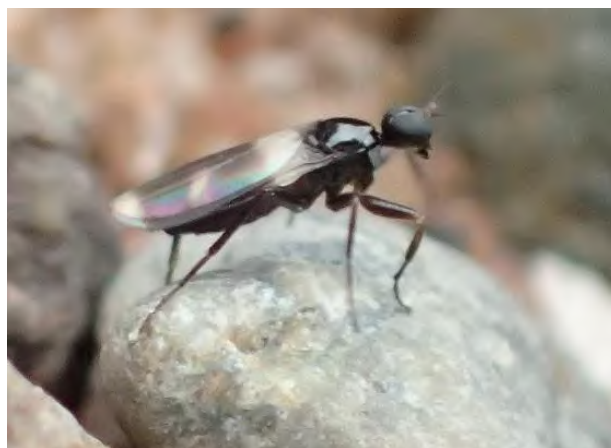
At around 1.5 to 3 mm long and black, they are not extravagantly obvious flies, but *Tachydromia* are readily distinguished, both in appearance with their rather boat-like shape and banded wings and in their general behaviour of actively running about on bare surfaces. The only really similar species are those belonging to the sister genus of *Tachypeza*, which are usually restricted to tree trunks (although *Tachypeza nubila* can also be found running over boulders on peaty moorland on occasion) and, although their wings are slightly darkened, they lack the distinctly dark-banded wings of those species of *Tachydromia* that are similarly found on tree trunks. With experience, *Tachypeza* can be pretty readily distinguished from *Tachydromia* but initially it will probably be necessary to check the key characters of a lower branch to vein Cu and conspicuous whitish setae on the occiput below the neck which are present in *Tachypeza* but not *Tachydromia*. Also, the upper margins of the eyes extend well beyond the ocellar tubercle in *Tachypeza* whilst in *Tachydromia* they are about level with it.



Tachydromia aemula on a log

Their habit of running over bare surfaces allows the opportunity to observe *Tachydromia* in situ, using close focus binoculars or digital cameras. Sue Taylor for one has used such methods in a fascinating study of a population *T smithi*, gaining new insights on their hunting and courtship behaviour.

In 1961 Collin recognised just 8 species of *Tachydromia* (under the name *Sicodus*) in Britain. There are now 15 species listed as British. Chvála published a review of the Palaearctic *Tachydromia* in 1970 in which he recognised 45 species. There are now some 81 Palaearctic species described. Chvála assigned species to different ‘groups’ based on their morphological characters. Although recent molecular studies have shed new light on the composition of some of these lineages, Chvála’s groups, each named after a representative, remain a useful way of sub-dividing the genus. There is no strong correlation between the different groups and their habitat preferences. A key was included in the handout produced for the 2019 workshop at Preston Montford.



Tachydromia morio on river shingle

The following species accounts are based on the Recording Scheme data and my own personal experience. All photographs were taken by me unless otherwise stated.

Arrogans Group species

There are three British species in this group – *T arrogans*, *aemula* and *lundstroemi*. They typically run about on tree trunks, rocks and foliage in well vegetated situations, and have shiny black bodies with a silver-dusted episternum, slender male genitalia and two, unconnected, dark bands across each wing.

Tachydromia aemula (Loew, 1864)

This is the most widespread *Tachydromia* species in Britain. It can be found in a range of habitats from tidal riverbanks to high mountain ledges. I have frequently found it running over the leaves of *Petasites* growing along river margins, as well as on the sand beneath. I also see them running on the soil and on the foliage of herbaceous plants in my garden in Penrith. An individual on the tidal sand at the vegetated edge of a river flowing into the Solway estuary had a small springtail as prey. *T aemula* is very similar to *T arrogans*; however, *aemula* can be distinguished by its polished black occiput (which is silver-dusted down the eye margin in *arrogans*) and the pale base to the hind femora (hind femur all black in *arrogans*). The two species are much the same size, although individuals of *aemula* can be smaller (1.6 – 2.5mm) than *arrogans* (2 –

2.5mm). In his monograph of the Empididae in 1961, Collin regarded this species as a form of *T arrogans* and for that reason perhaps there has been confusion as to the British distribution of the two species, with many specimens of *T aemula* arranged over the name *arrogans* in museum collections. Flight period: May-October.



Tachydromia aemula

Tachydromia arrogans (Linnaeus, 1761)

Similar to *T aemula* and frequently confused with it, these two species can be distinguished by the characters mentioned in the account for *aemula* above. I personally have not found *T arrogans* in Britain, for which I have confirmed records only from south of a line between the Humber and Dee estuaries. I have however encountered the species in Europe where in most cases it was in riparian situations. I have seen them running on boulders in a wooded gorge in the Austrian Alps and on the walls of a limestone ravine in southern Spain. I have also swept it from vegetation along the banks of streams. Flight period: May-October.



Tachydromia arrogans

Tachydromia lundstroemi (Frey, 1913)

Very similar to *T arrogans* but larger at 3mm long and with legs all black apart from the knees (the anterior four femora are pale in *arrogans* and *aemula*) and with the double row of short black spines extending the full length of the fore and mid femora beneath. A short appendix to vein R₂₊₃ is said to be unique to this species within the Palaearctic fauna but I have specimens of *arrogans* in which at least one wing has this feature more or less developed. *T lundstroemi* is a north European species which has been reported from Sweden, Finland and Russia, so the single British record from Wiltshire is somewhat anomalous. A single specimen was swept from grass by the River Ebble at Coombe Bissett by Sir Christopher

Andrewes on 18 August 1964 and identified as this species by J.E. Collin. Andrewes left his collection to the NHM but the *lundstroemi* specimen is not among the material held there. There are however, several specimens of *T arrogans* collected by Andrewes on subsequent visits to Coombe Bissett, so he clearly returned several times to try and re-find the species but without success. Rob Douglas informs me that there is a single specimen of *T lundstroemi* from Coombe Bissett in the Verrall-Collin collection at OUMNH, so it appears that Collin retained the specimen although the date on the label is 'June 1965'. Flight period: June/August?

Annulimana Group species

The three British species in this group, *T umbrarum*, *smithi* and *woodi*, have a similar two-banded wing pattern to the *arrogans* group but the episternum is polished black and the middle of vein R₂₊₃ is strongly arched towards the costa. These species are generally found running on tree trunks and fence posts, often in the vicinity of water. They seem to prefer smooth, pale-barked trunks, perhaps because these bare surfaces provide the best substrate for hunting and courtship display, although there could be also some recorder bias in that they are more easily spotted on such surfaces.

Tachydromia smithi Chvála, 1966

This species resembles *T umbrarum* in having strong spinose setae on the hind part of the thorax and the scutellum. But whilst *umbrarum* has 4 to 8 scutellar bristles, *smithi* only has two. *T smithi* was first reported new to Britain by David Gibbs in 2006 after he found a single male on the trunk of an aspen tree at Centre Parks in Sherwood Forest, Nottinghamshire on 2 July 2005. There is now an earlier record on the recording scheme database, of a female found at a disused quarry at Chafford Hundred in South Essex in 2000, identified by D.A. Smith. I am embarrassed to find that I had myself collected a specimen of *T smithi* in 2004, from the River Monnow at Llangua, Herefordshire and which then went unrecognised for 15 years among unsorted material. There have been several subsequent records of the species from scattered locations in Kent, Buckinghamshire, Norfolk, Shropshire and, in 2023, from the Formby coast in South Lancashire. I have not come across any unrecognised specimens of this species in the older British collections of museums around the country, so it seems likely that *T smithi* is a recent addition to the British fauna, either by natural colonisation or, perhaps more likely, through introduction with imported trees, and that it is currently



A mating pair of *Tachydromia smithi* © Sue Taylor

expanding its range here. Most British records are from trees on the margins of water bodies in flooded gravel pits and quarries, although I have also found this species on the trunks of river-side trees in Spain (and it has been found by the Monnow of course!). Sue Taylor has carried out a detailed study of this species at College Lake, Pitstone, Buckinghamshire where she has recorded adults from May through to December and has been able to video fascinating courtship and mating behaviour. Flight period: May-December.

Tachydromia umbrarum Haliday, 1833

At 2-2.5mm long this species is the same size and appearance as *T smithi* but can be distinguished by the number of scutellar setae mentioned above. *T umbrarum* also has the last two pairs of dorocentrals equally large and strong whilst in *T smithi* the penultimate pair are only half as long as the posterior pair. *T umbrarum* occurs widely throughout Britain and is usually found running on tree trunks and fence posts but is not so strongly associated with water margins as is *T smithi*. I have found it on the trunks of trees planted along a suburban road as well as in wood pasture, wet woodland and on riparian tree trunks and fence posts. Flight period: May-September.

Tachydromia umbrarum



Tachydromia woodi (Collin, 1926)

This species lacks the strong spinose setae of *T smithi* and *umbrarum* and also the large, shovel-like ventral projection to the tip of the mid-tibia that those two species share. At 1.9-2.25mm long it is also rather smaller. *T woodi* is not frequently recorded. It is mostly reported from riparian situations and shows an association with exposed riverine sediments. I have previously found individuals on fence posts on a wooded riverbank and the rails of a wooden footbridge over a woodland stream. However, I have recently captured this species in some numbers in soil emergence traps set on flood-deposited sand on riverbanks in Cumbria and Perthshire. This is a distinct but allied habitat to the in-channel sand and shingle bars required by some other *Tachydromia* species. Flight period: May-August.

Tachydromia woodi



Ornatipes Group species

This group is defined by the combined characters of a silver-dusted episternum, yellow palpi, black legs, two dark bands across the wings, fore femora without a double row of short black setae and male genitalia small and relatively simple. *T. halidayi* is the only British representative of this group.

***Tachydromia halidayi* (Collin, 1926)**

At about 1.5 mm long, this is the smallest British species. It has a black body and legs with just the basitarsi and the palps yellow. The whole of the occiput, the episternum and the anterior face of the front coxae are silver-grey dusted. *T. halidayi* is restricted to the north and west of Britain where the topography and climate provide suitable conditions. It is an obligate species of ERS, showing a distinct preference for unvegetated deposits of coarse shingle. It is therefore found on flashier and stonier stretches of river than most other *Tachydromia* species. It has a later season than other ERS specialist *Tachydromia*, with numbers peaking in July. Flight period: May-September.



Tachydromia halidayi

Interrupta Group species

Chvála distinguished this group on the combined characters of the silver-grey dusted episternum, the cross-bands of the wing being joined in cell R_5 and in the fore femora being 'whitish pubescent beneath and armed only with whitish anteroventral hairs'. The wing of *T. calcarata*, the only British representative of the group, is anomalous in having the cross-bands also connected in cell R_1 with only a hint of a pale area in cell R_3 . In 2018, Grootaert and Shamshev proposed placing the *interrupta* group within the *arrogans* lineage.

***Tachydromia calcarata* (Strobl, 1910)**

The wing pattern of this fly is similar to that of species in the *connexa* group but male *T. calcarata* lack the modified mid-femora and large genitalia of that group. A specialist of ERS, *T. calcarata* was found new to Britain in 2004 on the rivers Irthing and King Water in northeast Cumbria. It was then found by Ian McLean on the River Tees near Bowlees, County Durham in 2010. I found it again in 2019 on Bollihope Burn in Weardale, Durham. *T. calcarata* occurs on partially vegetated,



Tachydromia calcarata

low-lying, damp river-edge sand and shingle. Outside the north Pennines, this species is only reported from the Austrian Alps and the Dolomites. Flight period: June-July.

Connexa Group species

The group is characterised by species with rather broad, blunt-tipped wings, the dark cross-bands on the wing are broadly connected in cells R_1 and R_3 at least, a relatively short arista and silver-grey dusted episternum. The males have modified mid-femora and large, globular genitalia.

***Tachydromia acklandi* Chvála, 1973**

This small species has only faintly marked wings but is easily recognised by the short, pale palps with several long pale setae. Also, the fore femur possesses a row of long fine ventral setae. Males are further differentiated by the modified mid-femur and the very large globular genitalia. *T. acklandi* is an obligate ERS species, occurring on sandy shingle deposits in spring and early summer. It was first described from specimens collected by Mike Ackland by the Dorback Burn in Strath Spey in 1967 and has since been found on spate rivers with a significant sand fraction elsewhere in Scotland, northern England and south Wales. There is also a curious intertidal record from St Audrie's Bay, South Somerset in 2005. Flight period: May-August.

Tachydromia acklandi



***Tachydromia connexa* (Meigen, 1822)**

Specimens labelled as this species in museum collections often turn out to be *T. morio*, which has the same wing pattern and similarly modified legs. However, *T. connexa* has paler legs and the base of the hind femur is yellow rather than black. *T. connexa* is a scarce southern species with thinly scattered records extending from East Kent as far north as Derbyshire and South West Yorkshire. It is a spring species of sandy substrates and although it has occasionally been found on sandy riverbanks it is more often recorded from sparsely vegetated quarries and sandpits. Flight period: May-July.

***Tachydromia costalis* (von Roser, 1840)**

Unlike *T. connexa* and *morio*, *T. costalis* has no pale area within cell R_3 of the wing. It is further distinguished from *T. morio* by the yellow base to the hind femora, a character which it shares with *T. connexa*. *T. costalis* is another specialist species of ERS where it is found on partially vegetated sandy deposits, both on in-channel bars and on flood-deposited sand on riverbanks. It occurs on sandy rivers, with strongholds in south Wales, Cheshire and Cumbria. There are also scattered records from

Somerset, Sussex, Surrey, northeast England and southwest Scotland. Interestingly, there are no records further north in Scotland from the ERS-rich catchments of the Tay and Spey. Flight period: May-July.



*Tachydromia
costalis*

***Tachydromia edenensis* Hewitt & Chvála, 2002**

This species was described from specimens collected on the River Eden in Cumbria where it was first found on deposits of dry, unvegetated sand deposited on the tops of shingle bars in 2000. The clearly annulated tarsi are distinctive as are the male genitalia. This obligate ERS species has subsequently been found by Andy Godfrey on the rivers Lune in Lancashire and Swale in Yorkshire. Martin Drake has found it in south Wales and I have found it on the Till in Northumberland and in Scotland on the Nith in Dumfriesshire and the Tay in Perthshire. Flight period: June-July.



*Tachydromia
edenensis*

***Tachydromia halterata* (Collin, 1926)**

This species shares the modified mid-femora with several other *connexa* group species but is distinct from them all in having the outer two thirds of the wing darkened right up to the tip and also in having dark halteres. This is an enigmatic species which has not been found in Britain for almost 90 years. All but one of the dozen or so records of the fly are from the fenland area of Cambridgeshire, Suffolk and Norfolk, the other report being of one found by Donisthorpe “with *Lasius fuliginosus*” at Darenth in Kent in 1909. Collin states that its short, dark legs and broad wings give it a *Drapetis*-like appearance. The only indication of substrate preference is provided by Collin’s report of a female he caught on the trunk of a tree in his Newmarket garden. The last record of the species was on the Devil’s Ditch near Burwell in 1937, when Collin found both sexes. Flight period: May-June.

***Tachydromia morio* (Zetterstedt, 1838)**

This is the most widespread of the ERS specialist species and is found widely in northern and western Britain from Ross & Cromarty south to Devon. *T morio* is less demanding in the grade of sediments it will tolerate and can be found on sandy gravels to coarser shingles. It is therefore able to extend into more upland river stretches than most other species. *T morio* is most similar to *T costalis* and *T connexa* but can be

distinguished from *costalis* in having a pale patch in the otherwise darkened cell R₃ and in having the hind femora entirely black. *T connexa* also has a pale area in cell R₃ but like *costalis* it has the base of the hind femora yellow. Flight period: May-August.

*Tachydromia
morio*



***Tachydromia terricola* Zetterstedt, 1819**

T terricola is the only British member of Chvála’s *terricola* group, characterised by the possession of largely clear wings which are only faintly clouded along the veins and at the apex of cell R₃, largely pale legs and in the males lacking the large, globular genitalia of the *connexa* group. This species was first found in Britain in 1973, when A.A. Allen collected a single female in a sandpit near Lydd, Dungeness. Returning to the site in 1978 he found the species to be restricted to a “shallow depression in the sand not far from the edge of the lake filling the bottom of the pit” and he collected a few males and females by “grubbing at the roots of the thin herbage and in the open among fragments of plant debris etc”. There are further records for Dungeness from June 1989 and also for Rye Harbour in August 1986, but none more recently that I am aware of. Chvála reports this species to be uncommon but well distributed across northern and central Europe, in sandy coastal biotopes. I have found it in central Norway on a sandy riverbank well away from the coast. Flight period: June-August.

Hints for finding small Hybotids – *Crossopalpus*, *Platypalpus*, *Stilpon*, *Tachypeza* and *Tachydromia*

Nigel Jones

Most Hybotidae are very small flies and can quite easily be overlooked in nets that have been swept through vegetation to collect flies. When looking for Hybotids, I find a useful approach, when first getting one’s head into the net to see what lies within, is to first clear the net of distractions. This is best done by pootering up or letting escape larger flies, particularly any very active ones. Next, take plenty of time to watch for small flies climbing up the net and collect these in a pooter or direct into tubes. Once these have been collected, have a good long stare at the bottom of the net and in the crease where the edges of the net are sown together - Hybotids and other very small flies often lurk there.

Members of the same Hybotid genera wandering about within the confines of the net usually look very similar to each other, so collect a good number of them. Almost invariably a sample containing numerous, ostensibly identical specimens, will in fact contain a number of species. By way of example, I swept the foliage of some willow trees on the slopes of the

Stiperstones, Shropshire in early June and pootered up numerous *Platypalpus* which I could easily have assumed would all be members of one or two species at best. On getting the sample home and identifying the specimens, there were six species present: *Platypalpus ciliaris*, *P. cothurnatus*, *P. longicornis*, *P. longisetia*, *P. nigratarsis* and *P. verralli*.

Sweeping through and across vegetation is an excellent way to find Hybotids, particularly across tree foliage. For those with a vacuum sampler (a converted battery-powered leaf blower works a treat), prodding the sampler into the base of vegetation will garner plenty of *Crossopalpus* and sometimes the tiniest of the tiny Hybotids *Stilpon graminum* – a really smart little fly that's well worth seeking out. I've only ever found *Stilpon* (several times now) through vacuum sampling* at the bases of rushes in damp areas at the edges of standing water. Some of these flies are so small that they may not be recognised in the field as Hybotids, so it's a good idea to collect even the tiniest indistinct looking flies wandering about inside nets and in white trays that vacuum samples have been tipped into. Winter vacuum sampling is a great way to get hold of *Crossopalpus* and *Stilpon*. Cold conditions really slow them down so that they do not fly off when vacuum samples are emptied into trays.

In 2022 I went out collecting *Tachydromia* with Steve Hewitt. It was a searingly hot day and I was having hardly any joy finding *Tachydromia*, but Steve had plenty! Steve was sweeping the shady side of trees where small Hybotids move to when it gets too hot for them. I adopted this approach and immediately got better numbers. Steve also lifted leaves in contact with the ground, where *Tachydromia* also shelter from heat. The habit of *Tachydromia* of walking on posts and rails is well known and I collected specimens by carefully direct pootering. *Syndyas nigripes* – red – after 2010 – grey – to 2010 – *Tachypeza* are also in the habit of wandering about on timber surfaces but tend to eschew fences in favour of tree trunks. Beech is the best place to search as these flies are easier to spot on the relatively smooth surface of this tree. *Tachypeza* are very adept at getting away from approaching pooters or tubes, but they seldom fly, preferring to run a little distance off. It's usually possible to capture specimens with persistent and stealthy use of a pooter or a glass tube placed directly over the fly. When using a tube, approach very slowly, avoid sideways movement and try to bring the tube directly, but still slowly down on the specimen. Once the tube is over the fly, it will usually run up the tube, allowing one to get a cap over the open end – to this end, keep the closed end of the tube pointing upwards until the cap is in place.

*I don't have my own vacuum sampler, but follow vacuum samplers about and ask them to sample from suitable looking places. See the Lesser Dung Fly Recording Scheme newsletter for more details.

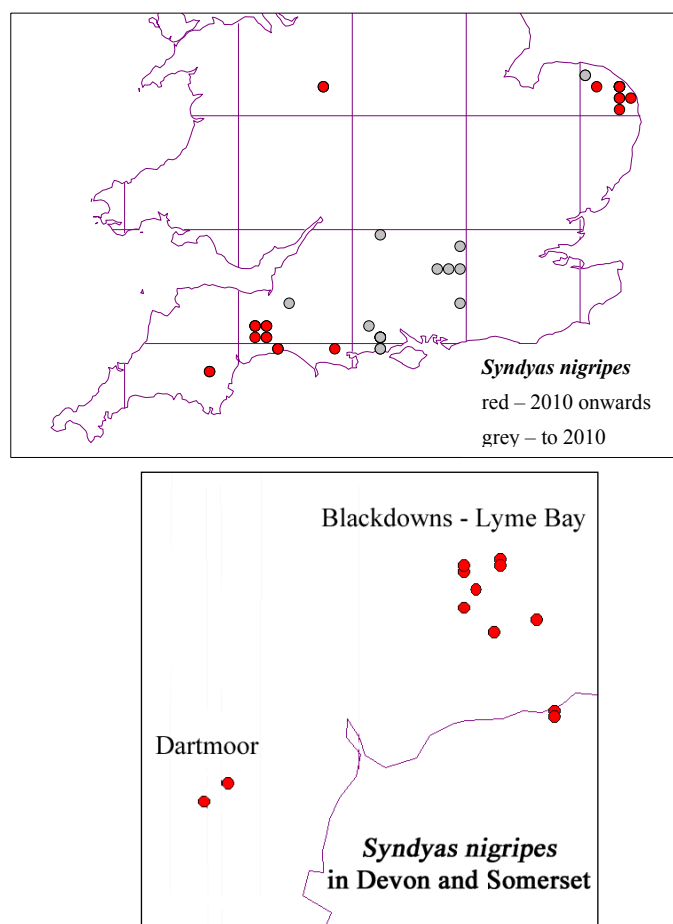
Update on *Syndyas nigripes* (Hybotidae) in the West Country

Martin Drake

A dozen years ago, I wrote about the first records of this Near Threatened fly in Devon (Drake, 2011). More records from Norfolk, mainly from the Dipterists Forum summer meeting in 2022, and from the southwest of England from my own collecting, show it to be doing well (Fig. 1). I am particularly interested in the records on my home patch in East Devon and

adjacent west Somerset, plotted here at 2km resolution. (Fig. 2). This area is on Mesozoic geology with a wide range of soil types from acidic to basic. The result is an intimate mix of habitats that range from open acid mire with runnels to tufa-depositing seepages. Nearly all the records of *S. nigripes* from this area are from acid mire, the least attractive of which is *Molinia* or *Juncus* bog and the best is runnels with bog-bean and bog asphodel. No surprises there. But I also caught it recently at two seepages on the coastal soft-rock cliffs of Lyme Bay where aquatic stratiomyids are frequent, including six species of *Oxycera* and *Vanoyia tenuicornis*. This suggests a complete muddle of requirements. The Norfolk fens also have pockets of *Sphagnum*-dominated mire in close proximity to the more widespread base-rich or neutral fen (George 1992). Perhaps *Syndyas* is capable of sniffing out the small acidic patches, both in Norfolk fens and on Devon's soft-rock cliffs. Clearly we need to add a pH meter to our field equipment. Chvála (1983, p102) describes the genus as appearing to be restricted to cold *Sphagnum* bogs; there is no *Sphagnum* on the Devon cliffs and, whether or not the seepages are acidic, these steep south-facing slopes overlooking the English Channel are very definitely not cold.

The maps were produced using DMAP using records derived from the E&D recording scheme database, iRecord and the NBN Gateway.



Interesting dolichopodids recorded at the Dipterists Forum field meeting in Norfolk, 2022

Martin Drake

We had a bumper crop of dolichopodids at this field meeting, held 2-9 July 2022, despite the rather trying dry conditions. As in recent years, many participants passed their specimens to me during the week, while other recorders identified their own catch. Jane Hewitt collated everyone's records, which amounted to 1900 for dolichopodids from 22 hectads. These included an unexpectedly high total of 141 species which is a sizable increase on the past few years when 96-121 species have been recorded (see my earlier reports in this newsletter). This is probably mainly due to many more specimens given to me, but also to Norfolk holding some prime dolichopodid habitat.

Way ahead at the top of the table were *Chrysotus gramineus* and *Gymnopternus aerosus*, both very common species, but among those most frequently found but which are not particularly common-or-garden species nationally were *Teuchophorus spinigerellus*, *Dolichopus longitarsis* and *Ethromyia chalybea* which are closely associated with fens, and, because of so many coastal visits, *Dolichopus strigipes* on the saltmarshes.

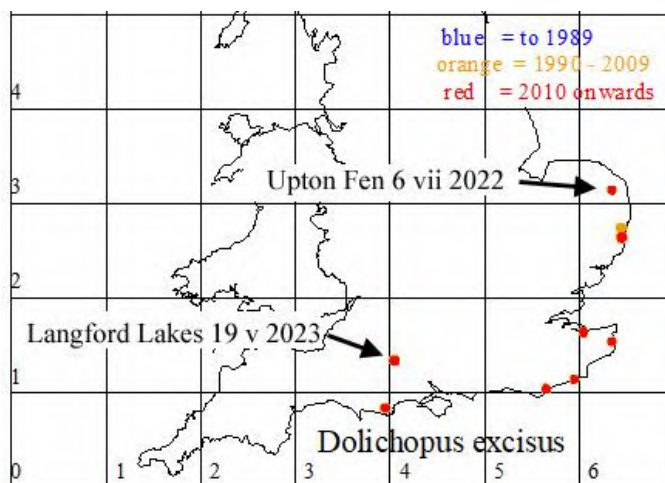
At the other end of the scale, 23 species had a conservation status. Most of these were represented by single specimens. The more frequent were *Thrypticus pollinosus* and *Telmaturgus tumidulus*, both tiny flies, and *Telmaturgus* having a very limited distribution in Britain but well known from the Norfolk fens. I was hoping we'd find more than a single specimen of the endangered *Dolichopus laticola* and two of *Thrypticus smaragdinus* as these fens are almost their only locality and both were moderately widespread here a few years ago. Seven species represented new records for Norfolk according to the E&D database but I may be overlooking iRecord and NBN records. *Dolichopus excisus* (at Upton Fen) was a good find although it has not been on the British list for long so it is still turning up at new places. This record moves its distribution well inland when previous records suggested a near-coastal distribution, but to cap this, Mike Ashworth made an exceptional record on the DF spring meeting in Wiltshire in 2023 – see map. *Argyra auricollis* (Hilly Hole) and *Sciapus zonatulus* (East Wretham Heath) were over 100km from the nearest previous records. *Systemus bipartitus* (Catfield Fen) was also a considerable way from the nearest records in Cambridgeshire. *Dolichopus nitidus* (Sutton Broad) is known from nearby at a Suffolk fen but this was the first from Norfolk. *Dolichopus virgultorum* (Thompson Common) continues its northward march, this being the most northerly on the east side of the country, and a big leap from the nearest records in the Thames basin. I did not expect to find that *Argyra ilonae* (Lower Wood, Ashwellthorpe) was not previously known from Norfolk as it is widespread and hardly uncommon over much of England.

Several of the species are geographic oddities in that their distribution is northern and western and they reach their greatest frequency in Scotland, but their outlying occurrence in the Norfolk fens is already known. This group includes *Argyra auricollis*, *A. elongata*, *Campsicnemus pusillus*, *Dolichopus caligatus*, *D. lepidus*, *D. phaeopus* (although frequent on moors in south-west England) and *Syntormon tarsatum*. These

flies presumably sniff out the patches of acid bog within the large expanses of neutral to base-rich fen.

Just mentioned in passing are some scarce or rare moderately conspicuous species that are already known in Norfolk but nice to see: *Dolichopus notatus*, *Orthoceratium sabulosum* and *Syntormon mikii*.

And *Syntormon metathesis* was recorded new to Britain after finding several males (Drake 2023). No sooner than the paper was published than Tony Irwin and Martin Greenland found more specimens. Martin's were particularly interesting as both sexes were recorded near Filby Broad in the southeast, somewhat away from the other records, and more importantly on 21 March 2023, thus making this another early-flying *Syntormon* along with *denticulatus*, *macula* and *pallipes*.



The single British record of *Campsicnemus umbripennis* (Dolichopodidae)

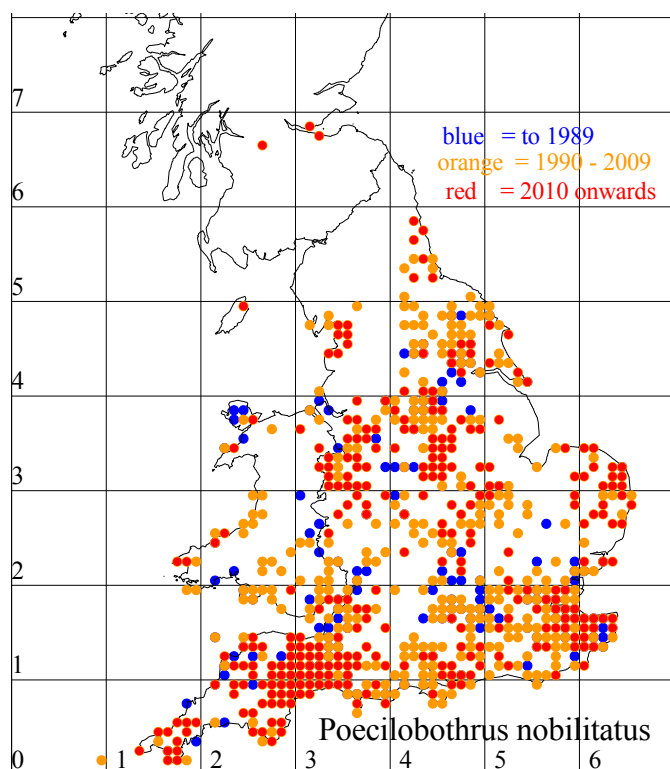
Martin Drake

Ivan Perry (1999) introduced this dolichopodid to the British list from one male found in grassland at the top of the soft-rock cliffs called The Spittals, next to Lyme Regis in Dorset. I have visited this many times in the last 20 years as it is only half an hour's drive away. My list of dolichopodids is enviable but I still have not found Ivan's *umbripennis*. More interesting than my lack of success is why this species is here at all. It is one of the few dolichopodids with accepted subspecies rank, if you think that this is a valid taxon. Strobl (1899) described *C. umbripennis* var. *hispanicus* from several males collected in northwest Spain. Parent found several more characters than Strobl used to separate the two subspecies, and the figures by Peter Chandler in Ivan's paper show most of these, so there is no doubt that the identification is correct. The distribution of subspecies *hispanicus* is just Spain and France whereas the nominal subspecies (*C. umbripennis umbripennis*) is widespread in Europe from Spain to Turkey to Poland (Pollet 2011), and clearly not uncommon, for instance, Strobl refers to his numerous central European specimens when comparing the two forms. The Dorset specimen is therefore curious for being the rare form. Does this one occurrence coincide with an influx of migrants blow north from the Pyrenees area? I will continue looking for it but I may be unlucky if it was merely swept off course.

Poecilobothrus nobilitatus is doing well

Martin Drake

Not so long ago, *Poecilobothrus nobilitatus* was a 'southern' species in Britain but a recent flow of records from central Scotland and northern England make its move northwards more obvious. It is also absurdly abundant on every scrap of water here in Devon this year. Where they congregate, they chase away all the other dolichopodids so spoiling the chance of finding more interesting species. Despite being so common, I think I'm right in saying that we do not know where its larvae live; Smith (1989) said that they were unknown. But they are almost certainly in damp soil, and use water only as a feeding and lekking area. For instance, one can find aggregations in the most inhospitable places as long as there is a puddle. I include this map based on the E&D recording scheme data to complement that on iRecord which shows more northern records, but both iRecord and NBN show fewer of the southern records.



Dolichopodid test keys now on DF website

Martin Drake

I have uploaded my keys to dolichopodids on the Dipterists Forum website under the Resources / DF membership area / Keys. You need to be a DF member to access this page. Do please try them out and let me know what doesn't work or is unclear, or downright wrong. I will add a running update of corrections; I have some already! I have not included *Thrypticus* or *Medetera* yet as these include several 'new to Britain' species which I intend to publish formally shortly.

These keys will be published by the Royal Entomological Society in its series *Handbooks for the Identification of British Insects*. For the last two years I have missed my own deadline, so don't hold your breath.

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Recent literature (dolichopodids)

- Barták, M. & Kubík, S. 2022. Unexpected previously unknown diversity of the genus *Microphor* Macquart (Diptera: Dolichopodidae: Microphorinae) in the west Palaearctic. *Insects* **2022**, *13*, 700. <https://doi.org/10.3390/insects13080700>. [An important paper covering many species and with good genitalia figures that are now almost essential for correct identification]
- Drake, C.M. 2023. *Syntormon metathesis* (Loew) (Diptera, Dolichopodidae) new to Britain. *Dipterists Digest (Second Series)* **30**, 55-59.
- Drake, C.M. & Painter, D. 2023. *Hercostomus rusticus* (Meigen) (Diptera, Dolichopodidae) new to Britain in urban London. *Dipterists Digest (Second Series)* **30**, 70-79.
- Kejval, Z. & Pollet, M. 2023. The genus *Medetera* (Diptera: Dolichopodidae) in the Czech Republic with first records of twelve species. *Zootaxa* **5245**, 69-93. [We are overlooking many species in Britain; this paper shows just how many can be found with a close study in a central European country]
- MacGowan, I. & Drake, C.M. 2023. The correct name for the montane *Hydophorus* species (Diptera, Dolichopodidae) occurring in the British Isles. *Dipterists Digest (Second Series)* **1**, 26 - 29
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Newsletter compiled by C. Martin Drake



Lesser Dung Fly Study Group Newsletter 5

Getting to grips with Lesser Dung Flies Nigel Jones

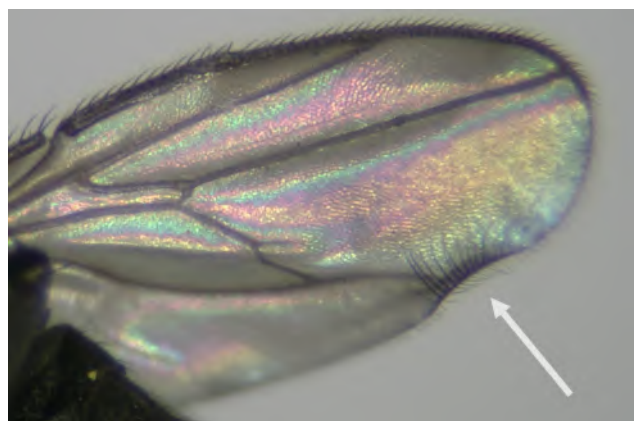
During the autumn/winter of 2022/23 I've been in the habit of joining a group of naturalists going out, on a weekly basis, to various Shropshire locations to search for and record invertebrates, fungi and plants. The group includes three members who regularly tote battery powered vacuum samplers (converted garden leaf blowers). At frequent intervals the cry "fly" goes up and that is my signal to urgently attend a small group of people staring into a white tray. The white tray will contain material tipped out of the vacuum sampler. Lots of small, and frankly, very tiny flies will be amongst the catch. Sphaeroceridae are usually the most numerous flies in the catch. The best approach for sampling these is to pooter up as many of the flies as possible, being particularly diligent about spotting the smallest specks of life, as these are often Sphaerocerids.



Nigel at the ruins of "the grandstand" at Racecourse Common, the haunt of rarely recorded LDFs such as *Pullimosina meijerei*, *Spelobia baezi* and *Rachispoda anceps*. Photo: Mark Welch, June 2023.

Having procured lots of Sphaerocerids, the next challenge is to identify species. A good place to start has been the relatively larger flies in the uncomplicated sub family Copromyzinae. Focussing on this subfamily I soon ticked off common species such as *Lotophila atra* (easily the most frequent LDF I record), *Copromyza stercoraria* and *Crumomyia* species. Amongst this latter genus the standout species is *C. pedestris*; a seemingly rather local fly with extremely distinctive wingless individuals. Members of the subfamily Sphaerocerinae are easy to spot as they have a distinctive warty appearance and stand out from the rest of the family fairly easily. Unfortunately I haven't found this subfamily very often, but I can list *Ischiolepta nitida* and *I. pusilla* as species I have managed to record. The subfamily Limosiniinae contains the majority of LDF species and includes some of the real tiddlers, clocking in at around 1-1.5mm length. These tiny species can be a rather intimidating prospect when it comes to identifying them and I have resorted to sending them on to our specialists Dave Brice and Mark Welch, who both make pretty short work of them! Encouragingly, a good number of the slightly larger Limosiniinae are readily determined. Perhaps the most easily recognised

limosiniine is the fairly large (rivaling the larger Copromyzinae) *Limosina silvatica*; the male sports mid legs with very long wavy hairs, unlike any other British LDF. The female, as does the male, obligingly features a long preapical dorsal bristle on the hind tibia which together with its large size make it easy to spot in LDF samples. Other distinctive species are *Chaetopodella scutellaris*, featuring a bright yellow front of frons; *Eulimosina ochripes*, featuring an all yellow head and frons with a contrasting black ocellar triangle; *Minilimosina vitripennis* sporting a thickened intensely black section of costa; *Coproica acutangula*, featuring a very distinct and highly unusual fan of hairs on the hind edge of the wing (photo), which strangely is not mentioned in Pitkin's 1988 RES Handbook. There are plenty of other species that can be identified without too much difficulty, so getting started with LDFs is a very worthwhile challenge to take up.



Right wing of *Coproica acutangula* showing hair fan. Photo: Nigel Jones

As mentioned above, I have sent a lot of flies to Mark Welch and Dave Brice and I have been surprised at the range of species contained in the samples. The haul from one site is particularly noteworthy; Oswestry Racecourse Common in North West Shropshire, currently stands at 32 species, and this is from just two winter visits. Mark Welch visited the site with me in June 2023, so yet more species may be added to the site list. As I write this, I am visiting Anglesey for a few days with family. Sealable plastic bags have been packed and a visit to the strandline of local beaches is called for. Doubtless the strandline samples will contain LDFs and I am looking forward to discovering species I have not yet recorded.

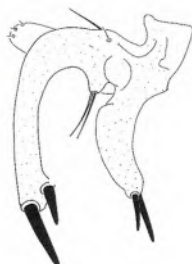
MW: Nigel has found some cracking LDFs at his Shropshire sites over the past 2 years. His recent purchase of a middle-of-the-range compound microscope has produced some excellent publishable images. As Nigel has demonstrated, the trick to handling (very) small fry is to be persistent, patient and dexterous. Congratulations Nigel!

Sphaeroceridae in your garden Andrew Cunningham
I thought it would be good to discuss tips for finding sphaeroceridae in your garden in each newsletter. Summer sees many of us mowing the grass. Grass cuttings placed in a large garden tub and filled with water for a few days produces an excellent and potent liquid manure. After draining this liquid for the vegetables, flowers, etc. the ‘mash’ can be left on the ground or in a trench. A shady spot is ideal to prevent it drying out. Keeping it moist will attract Sphaeroceridae. A recent collection of specimens using a motorised pooter produced records of *Coproica hirtula* (1m 2f), *Coproica lugubris* (1m), *Ischiolepta pusilla* (6m), *Pullimosina heteroneura* (2f) and *Spelobia clunipes* (1f).



RECENT HIGHLIGHTS

Puncticorpus cribratum Andrew Cunningham
Richard Lane regularly collects named fungi samples to place in containers for rearing diptera. The sphaeroceridae have been kindly passed on to me (Andrew Cunningham). There are still plenty yet to be identified after the field season winds down and a joint piece will be produced by both of us in due course. For now, we can report an exciting discovery. Two male specimens of the pNationally Scarce *Puncticorpus cribratum* were reared from the fungus *Macrolepiota procera* (The Parasol). The fungus was collected at Kilmington (SY260980) on 18/09/17 and the flies emerged on 19/10/17. The picture below shows the highly distinctive male genitalia (surstylus right, Pitkin 1988).



Recent paper on Sphaeroceridae published by DF members:

S. Hodge, I. Bottero, D. Brice, M. Welch, J.C. Stout (2023) Diptera collected from commercial *Bombus terrestris* (Linnaeus) colonies placed out in Irish farmland. *Dipterists Digest* **30**, 166-171.

DB and MW contributed identifications of sphaerocerids and phorids, respectively. The most widespread sphaerocerids were *Spelobia luteilabris* and *Telomerina flavipes*. *Coproica hirtula* (a common species in the UK) was recorded as a first for the Irish list. From the known phenologies of the sphaerocerids found in the *Bombus* nests, it is likely that they are feeding on nest detritus rather than being directly associated with bee larvae or pupae.

Dave Brice, Andrew Cunningham and Mark Welch are happy to receive LDFs in 70% or 80% ethanol for identification. Please send specimens to MW email at m.welch@nhm.ac.uk to get his home address. He will coordinate identification with Dave and Andrew.



Chaetopodella scutellaris (Male)
Andrew's Wood DWT VC3 15/10/22
Coll/Det : A. J. Cunningham



Gigalimosina flaviceps (Female) 06/11/19
Oakfordbridge VC4 SS929218
Coll/Det : A. J. Cunningham



Eulimosina ochripes
Male 19/07/20
Tiverton VC4 SS965135
Coll/Det : A. J. Cunningham

Easy LDFs. All photos by Andrew Cunningham



Anthomyiidae Recording Scheme Newsletter No 14

Autumn 2023

Anthomyiidae Handbook Project

We have to report that work on this project has ceased. Our small Working Group made good progress in gathering information and producing a draft scope for a published Identification Handbook in the style of the RES series. This set a high bar if we were to emulate the recent volumes on Blowflies and Fungus Gnats in the series.

It had become apparent that the magnitude of the task exceeded that envisaged at the outset. This impression was reinforced when we visited the Oxford Museum of Natural History in February this year to view Michael Ackland's archive and collection. There is an impressive array of documents and papers and the specimen collection in the original boxes occupies several cabinets.



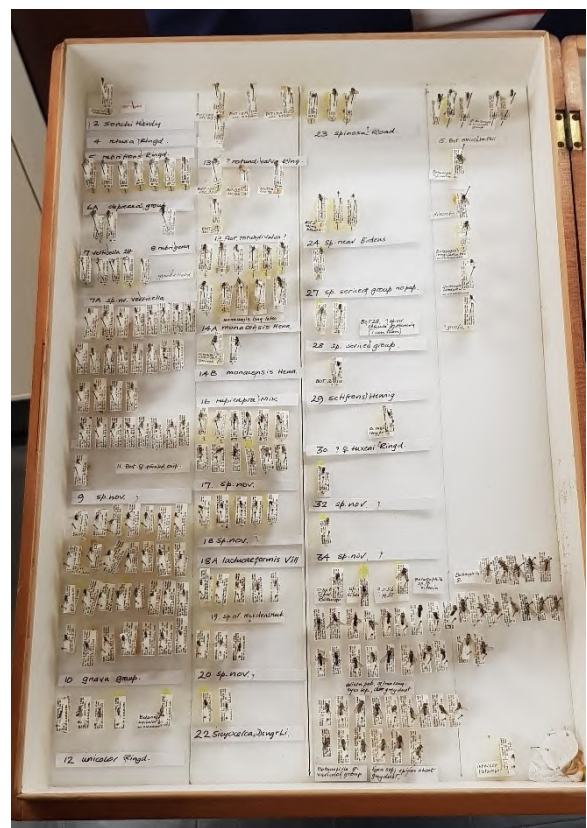
A peek inside one of these boxes containing part of the genus *Botanophila* showed several species marked as new to science. This of course reflects Michael's interest in the world-wide Anthomyiid fauna, and goes well beyond the scope of our British requirements. Nevertheless, we felt that a British handbook could not be produced without a good appreciation of the contents of the archive, not to mention frequent access to the collections to check details.

Given the size of the British Anthomyiidae family and the large range of ecological roles, this remains a large gap in the published literature, so it is to be hoped that

a project for an early-career entomologist to tackle this could sometime materialise at Oxford.

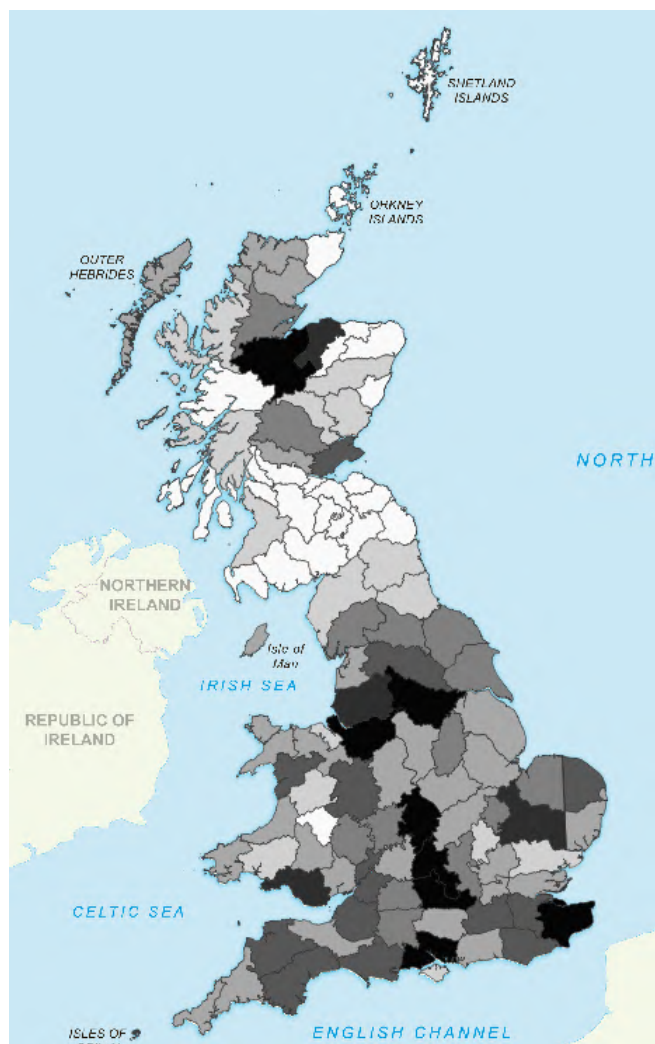
My thanks go to Steve Crellin, Gary Hedges, Siobhan Hillman, Steve Judd, Ali Shuttleworth and Sam Thomas for their help with the project, and the wider interest and encouragement shown by others. Thanks also to Zoe Simmons, Head of Life Collections at OUMNH for hosting our visit and to Gary for taking the pictures.

Michael Ackland always emphasised that the set of genitalia figures was the most important identification resource and that with experience people would usually go straight to those. We believe that the Workshop Notes remain adequate to support the Recording Scheme.

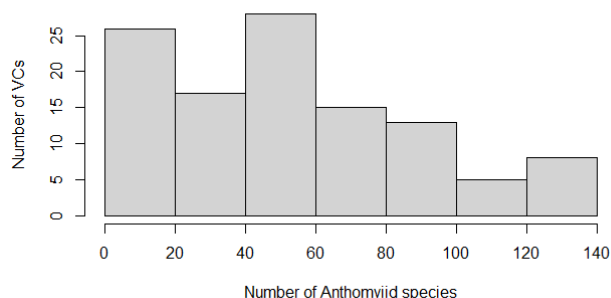


General distribution of Anthomyiidae

Part of our plan for the Handbook was an overview of recorded species distributions, perhaps along the lines of that in the Fungus Gnats handbook. There are now around 37,000 records on IRECORD, more than double the number at the end of 2019. Rather than plotting these numbers across the country, it is more revealing to look at the number of species recorded in each vice-county. This map shows the results on a scale from black for the highest to white for the lowest.



This histogram shows the numbers of vice-counties in each range.



The top ten of the 112 vice-counties are:

63	South-west Yorkshire	134
23	Oxfordshire	133
15	East Kent	130
22	Berkshire	129
38	Warwickshire	129
11	South Hampshire	126
58	Cheshire	123
96	East Inverness-shire	121
41	Glamorganshire	120
59	South Lancashire	120

These numbers show the influence of Michael Ackland's surveys in Oxfordshire and Berkshire. Laurence Clemons supplied his decades of records from Kent, and Warwickshire was covered by Steven Falk's data from the notebook transcription project. Numbers for the five Yorkshire vice-counties have been obtained from Andrew Grayson's list on the Yorkshire Naturalists website, and thanks are due to RECORD local records centre for the full Cheshire list. The last two of these sources are not yet fully reflected on IRECORD and NBN Atlas. Additional vice-county records for rare and scarce species have also been included from the status review of Falk and Pont (2017).

Putting the area of each vice-county into my species-area relation (Brighton 2023) gives expected species numbers for the top three vice-counties of 142, 132 and 137 respectively, an encouragingly close agreement. At the other end of the scale there is one VC with zero records – Selkirkshire in the generally poorly surveyed South of Scotland. Take a detour on your next trip to Scotland to get the first Anthomyiid record there!

Over in Ireland the number of species stands at 95, compared with the 93 listed by Chandler et al (2005). This compares with a species-area relationship prediction of 216, a considerably greater shortfall than for the "larger Diptera" overall.

Thanks to Gary Hedges for producing the map. Credit for the format should go to Rob Ryan (2019) whose British Heteroptera map shows a much greater bias to the south, albeit with 22 species recorded from Selkirkshire.

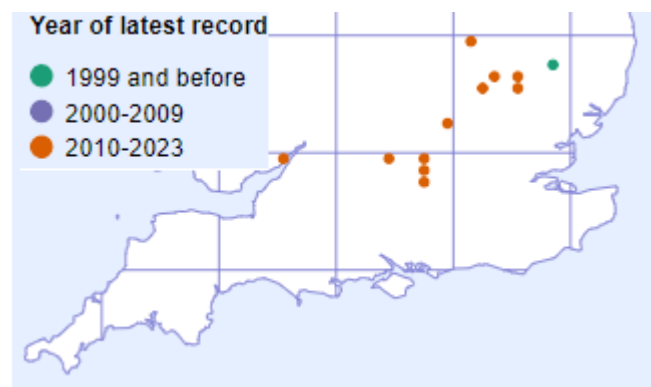
The *Anthomyia pluvialis* complex

I was very glad of the opportunity to talk to Ivan Perry at the Dipterists Day in London last November. He revealed that re-examination of his collection of the *pluvialis* section of the genus *Anthomyia* had uncovered two specimens of *A. plurinotata* from West Suffolk in

1997, over decade before our previous earliest British record (Brighton 2018). The side-pinning had obscured the distinctive pattern of two spots on the thoracic dorsum rather three in other British species (photos by Will George and Tim Cox):



This feature has produced a few more records from digital photographers on IRECORD in recently, whereas the much more frequent pictures of *procellaris* look-alikes have to be assigned to *Anthomyia* sp. (as in the delightful photo on the right by Graham Almond). There are now 17 records in an interesting swathe across Southern England.



Ivan had been re-examining his specimens because he had found two odd-looking *Anthomyia* males in his garden near Cambridge during last summer's heatwave. He identified them as *A. quinquemaculata* following Michelsen (1980a), who provided keys and descriptions for the males and females of the four similar species: *bazini*, *pluvialis*, *procellaris* and *quinquemaculata* (apart from female *bazini*). *A. quinquemaculata* has been recorded from around the Mediterranean, so it possibly arrived with the influx of hot air from the south.

Intriguingly, an unidentified *Anthomyia* species similar to *imbrida* is listed by Chandler et al (2005) from Northern Ireland. Genitalia drawings of this are included in the Anthomyiidae workshop handout.

The Anthomyiid sugar-beet leaf miners

Congratulations to Siobhan Hillman on completing her PhD about another troublesome species complex. Following damaging outbreaks of leaf-miners on the sugar-beet crop in 2015 and 2016, she was funded to study their population genetics and ecology at the

University of East Anglia (Hillman, 2022). Michelsen (1980b) described a complex of four *Pegomya* species: *betae*, *cunicularia*, *exilis* and *hyoscyami*. Siobhan has used DNA analyses to study a range of adult specimens from various collections and larvae, or the traces of larvae, from leaves collected from both cultivated and wild plants across a wide range of locations. Phylogenetic analysis was also used to look at the relation of the beet flies to a wider range of *Pegomya* species. She also developed a rearing technique and studied parasitoids and hyperparasitoids that emerged.

Overall a complex picture is presented with the possibility of cryptic species being involved.



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Soldierflies & Allies

Recording Scheme

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Anthomyiids

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Tephritidae

Tephritid flies Recording Scheme

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Conopids

Conopid Recording Scheme

with Lonchopteridae, Ulidiidae, Pellopteridae & Platypezomatidae

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Agromyzidae

Leaf-miner Recording Scheme

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Sciomyzids

Snail-killing flies Recording Scheme

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Sepsids

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Micropezids & Tanypezids

Stilt & stalk-fly Recording Scheme

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Heleomyzids

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Rhinophorids

Rhinophoridae Recording Scheme

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Kelp-fly Recording Scheme

Coelopidae, Heterocheilidae, Helcomyzidae

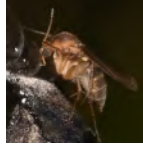
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Mosquitoes Recording Scheme

Culicidae

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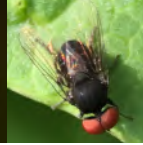


Fungus Gnats

Recording Scheme

Mycetophiliidae & allies

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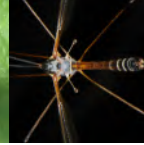


Flat-footed flies

Recording Scheme

Platypezidae

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Crane flies

Crane fly Recording Scheme

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Small Acalyptrates

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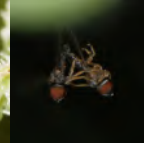


Lesser Dung Flies

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Sphaeroceridae

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Pipunculidae

Study Group

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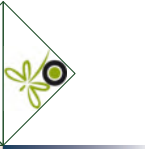
Houseflies

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Rhinophorids

Rhinophoridae Recording Scheme

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Kelp-fly Recording Scheme

Coelopidae, Heterocheilidae, Helcomyzidae

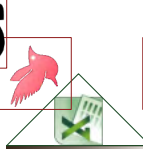
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Mosquitoes Recording Scheme

Culicidae

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Fungus Gnats

Recording Scheme

Mycetophiliidae & allies

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Flat-footed flies

Recording Scheme

Platypezidae

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Crane flies

Crane fly Recording Scheme

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Small Acalyptrates

Recording Scheme

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Pipunculidae

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Dipterists Forum

Recording Schemes & Study Groups



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Calliphorids
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Hippoboscids & Nycteribiids
Ked, Louse & Bat-fly Recording Scheme

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Collating & Managing

Methods available to the schemes are limited, for example there are presently no suitable image management tools. Current tools are: Recorder 6, MapMate, Excel & Access. Both BRC and Dipterists Forum may help Schemes with this task.



Chloropidae
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John & Barbara Smay schulimay@insectrus.com



Oestrids
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Andrew Grayson andrewgrayson1962@live.co.uk



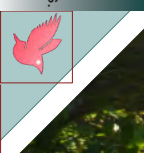
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Empid & Dolichopodid
Recording Scheme
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Steven Hewitt smhewitt@hotmail.co.uk
Nigel Jones nipajones@talktalk.net

Homes and keys

All of the Recording Schemes have a home on the Dipterists Forum website. Some of these are quite substantial and may be where you will find **identification keys**. Others have additional homes (red home symbols) which they might prefer (check both).



Design
D. Sumner (ADS)



Collecting



Disseminating

Click these icons at each Scheme



Dipterists Forum www.dipterists.org.uk

Publishing

Open Data publishing to publicly accessible sites is our contribution to conservation & education. Many schemes achieve this through NBN Atlas and GBIF. In 2020 our UK total was 341,353 with an additional four times that figure planned.