



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

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New subscription rates have come into effect

It is now possible to opt to receive the Bulletin and Dipterist Digest as a pdf

Please see the Membership section for full details

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Please use the Booking Form downloadable from our website

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Now organised by several different contributors, contact the Secretary.

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Illustrations: Front cover painting *Ctenophora ornata*, Dawn Painter, above *Dilochopus 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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### 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/](http://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/2jvz7hf>

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 18<sup>th</sup> September, following which there will be rollout of a number of improved features, the maps look very promising.



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 31<sup>st</sup> 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 28<sup>th</sup> 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, national 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 (26<sup>th</sup> 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\*

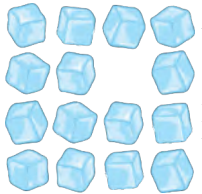
**Countries and regions are thirsty for summarized data and insights for policy-making but we are running short of tools for managing the data (Martinez, 2023)**

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>

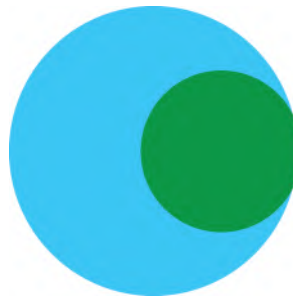
The managers of the above sites formed the core of the SoS group looking for solutions, like me they'll have been busily tidying up the material on their sites whilst they can.

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, Neriioidea & 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 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 novem* "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 [Summer, 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 acalypterate 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**

Summer 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*)



## 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 jacht*

## 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

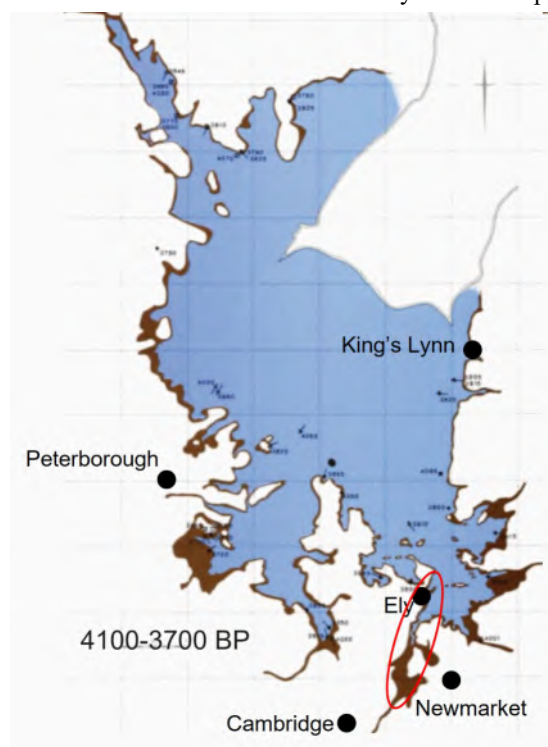
The list of mosquitoes recorded in the UK currently numbers 37 species. In the status review of Nematocera by Falk and Crossley (2005) eight species were listed, of which one (the tree-hole specialist *Orthopodomyia pulcripalpis*) is pNT and the remaining seven are Data Deficient. Mosquitoes seem to 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 4<sup>th</sup> instar larva from the Ely wetlands. **Below:** Palaeogeographic reconstruction of the Fenland Basin during the Neolithic marine trans-gression 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 amateur community can make important contributions to this effort. The HSA team collects specimens regularly from a national network of 40 “mosquito magnets” and Sentinel traps (both are CO<sub>2</sub>-± 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, dirofilariasis 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.

Falk, S.J. & Chandler, P.J. 2005. A review of the scarce and threatened flies of Great Britain. Part 2: Nematocera and Aschiza not dealt with by Falk (1991). Species Status 2: 1-189. *JNCC*, Peterborough.

Hawkes, F.M., Medlock, J.M., Vaux, A.G.C., Cheke, R.A. and Gibson, G. 2020. Wetland Mosquito Handbook: assessing suitability of British wetlands for mosquitoes. *Natural Resources Institute, Chatham, UK*.

Marshall, J.F. 1938. *The British Mosquitoes*. British Museum (Natural History). London.

Medlock, J.M., Avenell, D. Barrass, I., Leach, S. 2006. Analysis of the potential for survival and seasonal activity of *Aedes albopictus* in the United Kingdom. *Journal of Vector Ecology* **31**, 292-304.

Vaux, A.G.C., et al. (11 other authors) 2015. Enhanced West Nile virus surveillance in the North Kent marshes, UK. *Parasites & Vectors* **8**, 91-98.

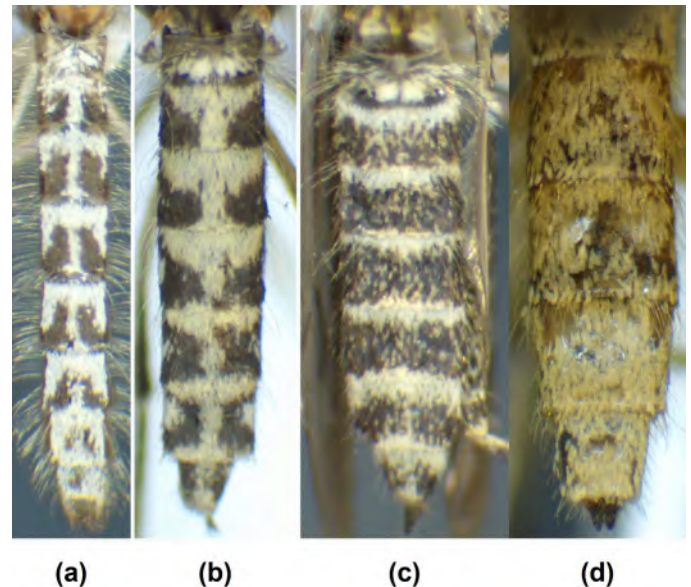
Welch, M.D. 2022. An inland occurrence of the potential West Nile Virus vector *Culex modestus* Ficalbi (Diptera, Culicidae) in Ely, Cambridgeshire UK. *Dipterists Digest (Second Series)* **29**, 119-126.

Welch, M.D. 2023a. An inland population of the coastal mosquito *Culiseta litorea* (Shute) (Diptera, Culicidae) in Ely, Cambridgeshire UK. *Dipterists Digest (Second Series)* **30**, 127-133.

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).



*Goniatina 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.



Scaphophagidae: "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 12<sup>th</sup> 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 Ungoed-Thomas & Maximillian 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.

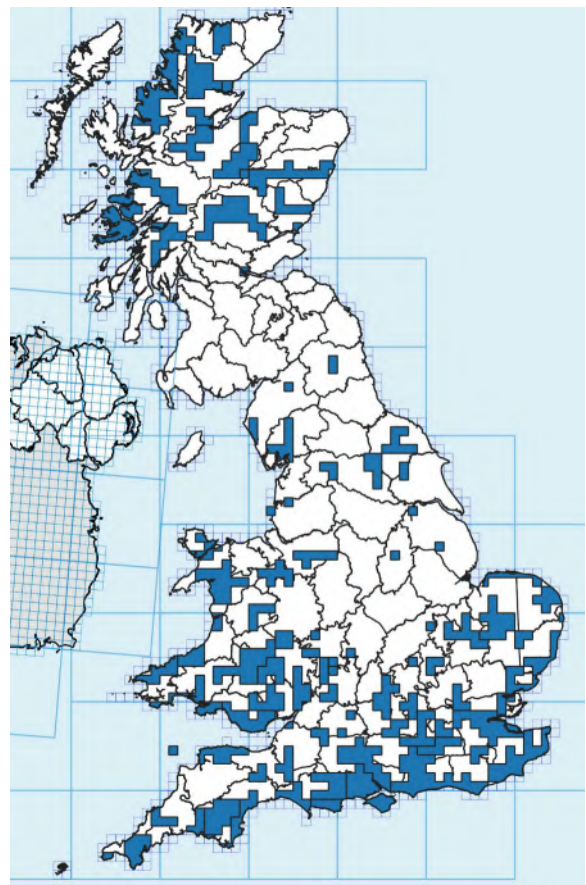
One curiosity that interested me though was regarding Jamie Robins figure of 45M records gleaned from 80+ invertebrate recording schemes which were used to devise these areas.

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/](http://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 beurocracy 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. (Netherland's 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



# Forum News

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.

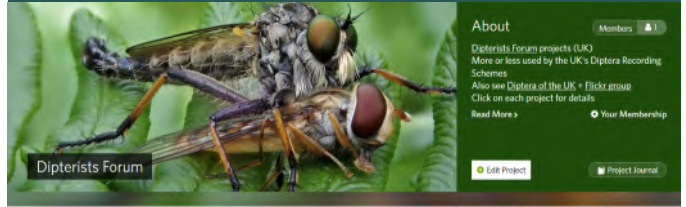
Darwyn, Jane & Martin H.

## 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.

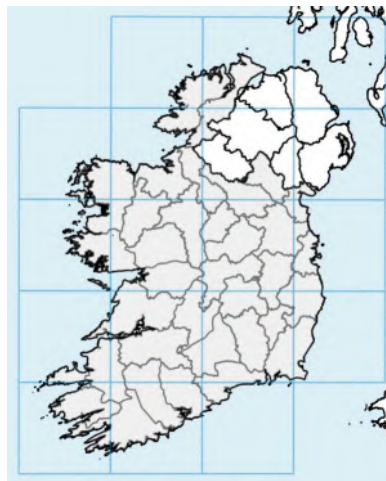
Recording Scheme organisers are urged to join their own project. A representative image on the individual project would be nice too.

### 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 fuscula* 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. He 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](mailto: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 Calobotinae 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 1<sup>st</sup> 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](http://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 5<sup>th</sup>.

<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 4<sup>th</sup> 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](mailto: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](mailto: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
Calyptorhynchus indet. ♀	2
<i>Fannia lustrator</i> ♂♀	3
<i>Musca autumnalis</i> ♂	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

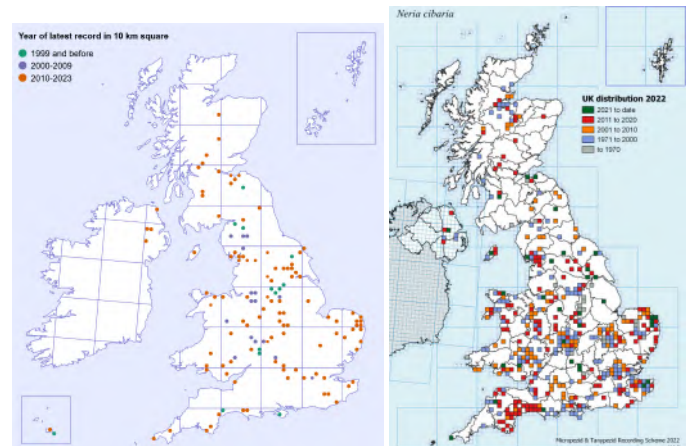
A complex topic best left to a supplement. Simply put though, if you've a decent macro lens plus bits and bobs like extension tubes and close up lenses then with a bit of good lighting plus a desktop tripod and focussing rail, you've got yourself a low power microscope. Use some form of concentric stage 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 (7<sup>th</sup> 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.bris.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/y7cjurz4>)

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>

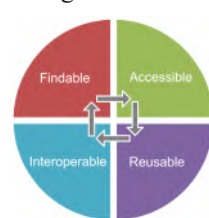
The Nehra (2023) article provides a well-written introduction to the concept whilst the Jones (2011) article shows how ecologists viewed the importance of Open Data over a decade ago.

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, myiases, 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/m7j7ju5> 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/bdyrzn7> 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/ykhxutz>)

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.

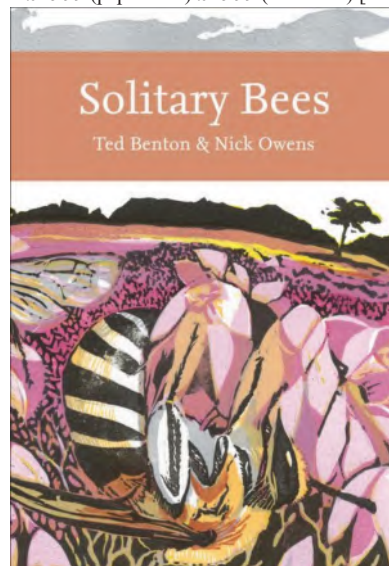
## New Naturalist series:

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.

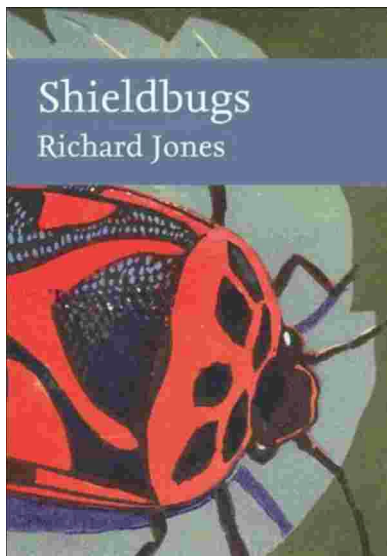
The introduction is impressive and informative, covering the history of the development of George Else's book, test keys from which encouraged many entomologists to begin to get to grips with identification. Also Steve Falk's field guide backed up by his photographic gallery on Flickr and later the publication 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 Bernhard, 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](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
<b>UK rates:</b>		
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
<b>Overseas rates</b>		
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/](http://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](mailto: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 - Sarc



MEMBERSHIP

www.buglife.org.uk/joinus • Save the small things that run our planet

Join Buglife today to insure

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	
	£	£	£	£
<b>Income</b>				
Subscriptions		8,536		8,832
Back issues	69			
Donations	439		193	
Pooters	50		60	
WILDGuide Royalties	936		677	
		1,494		930
<b>Field Meetings - net receipts from participants</b>				
Falmouth 2021	9,331			
Norwich 2022	300		8,110	
Swansea 2023			300	
		9,631		8,410
<b>Total Income</b>		<b>19,661</b>		<b>18,172</b>
<b>Income net of field meeting payments</b>			<b>10,030</b>	<b>9,762</b>
<b>Movement of Funds</b>		<b>2021</b>		<b>2022</b>
		£		£
Opening balance (1st Jan)		24,222		25,221
Net Surplus/Deficit		-2,878		297
Field meeting funds		3,877		0
<b>Closing balance (31st Dec)</b>		<b>25,221</b>		<b>25,518</b>
		<b>2021</b>		<b>2022</b>
<b>Expenditure</b>	£	£	£	£
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	
	<b>7,024</b>		<b>3,953</b>	
Bulletin 91	1,725			
Bulletin 92	1,550			
Bulletin 93			1,771	
Bulletin 94			1,743	
Bulletin envelopes/packing	755		924	
	<b>4,030</b>		<b>4,438</b>	
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	
	<b>1,854</b>		<b>1,075</b>	
<b>Field Meetings - payments on behalf of participants</b>				
Falmouth 2021		5,753		
Norwich 2022			8,610	
		<b>5,753</b>		<b>8,610</b>
<b>Total Expenditure</b>	<b>18,661</b>		<b>18,075</b>	
<b>Net expenditure</b>	<b>12,908</b>		<b>9,465</b>	
<b>Net surplus/deficit</b>	<b>-2,878</b>		<b>297</b>	

## Eulogy

### Tony Hutson

10<sup>TH</sup> JUNE 1944 ~ 16<sup>TH</sup> 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](https://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 craneflies 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

# Forum News

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 nematoceran 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 craneflies, he was involved in the foundation of the cranefly 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 cranefly 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 cranefly 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](mailto: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

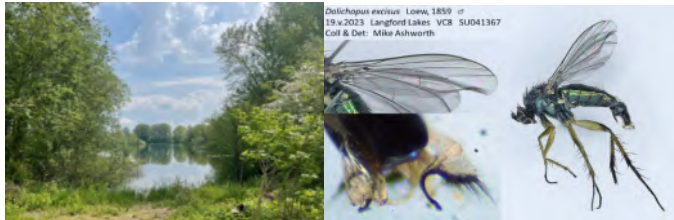
### Spring Field Meeting 2023

#### Wiltshire

19-21<sup>st</sup> 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

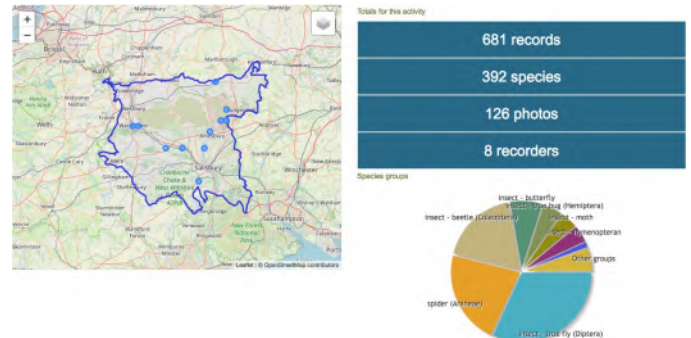
Sunday morning and again with glorious weather I headed to Jones's Mill the Vera Jeans Reserve, another WWT site, driving past folks with nets who were sampling along the Avon at West Chisenbury. The grassland looked great but there was a noticeable absence of insects on the wing. Hardly any hovers (and 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

### 50<sup>th</sup> 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-coliery 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 craneflies 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 SEWBReC 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 Honey-pot 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 Honey-pot 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)

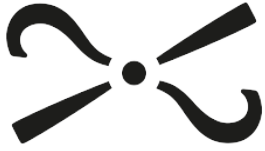
My thanks go to everyone who helped with the organisation and running of this meeting. This includes anyone who suggested sites and helped to organise access, those who helped set up and pack away the workroom, those who kept the supplies box in the kitchen stocked (dipterists consume vast amounts of 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 17<sup>th</sup> & Saturday 18<sup>th</sup> November 2023

National Museums of Scotland,  
Edinburgh



National  
Museums  
Scotland

### Dipterists Day

**Saturday 18<sup>th</sup> 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



### 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 17<sup>th</sup> 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 17<sup>th</sup> 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.bris.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 18<sup>th</sup> May to Sunday 19<sup>th</sup> 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](mailto: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	

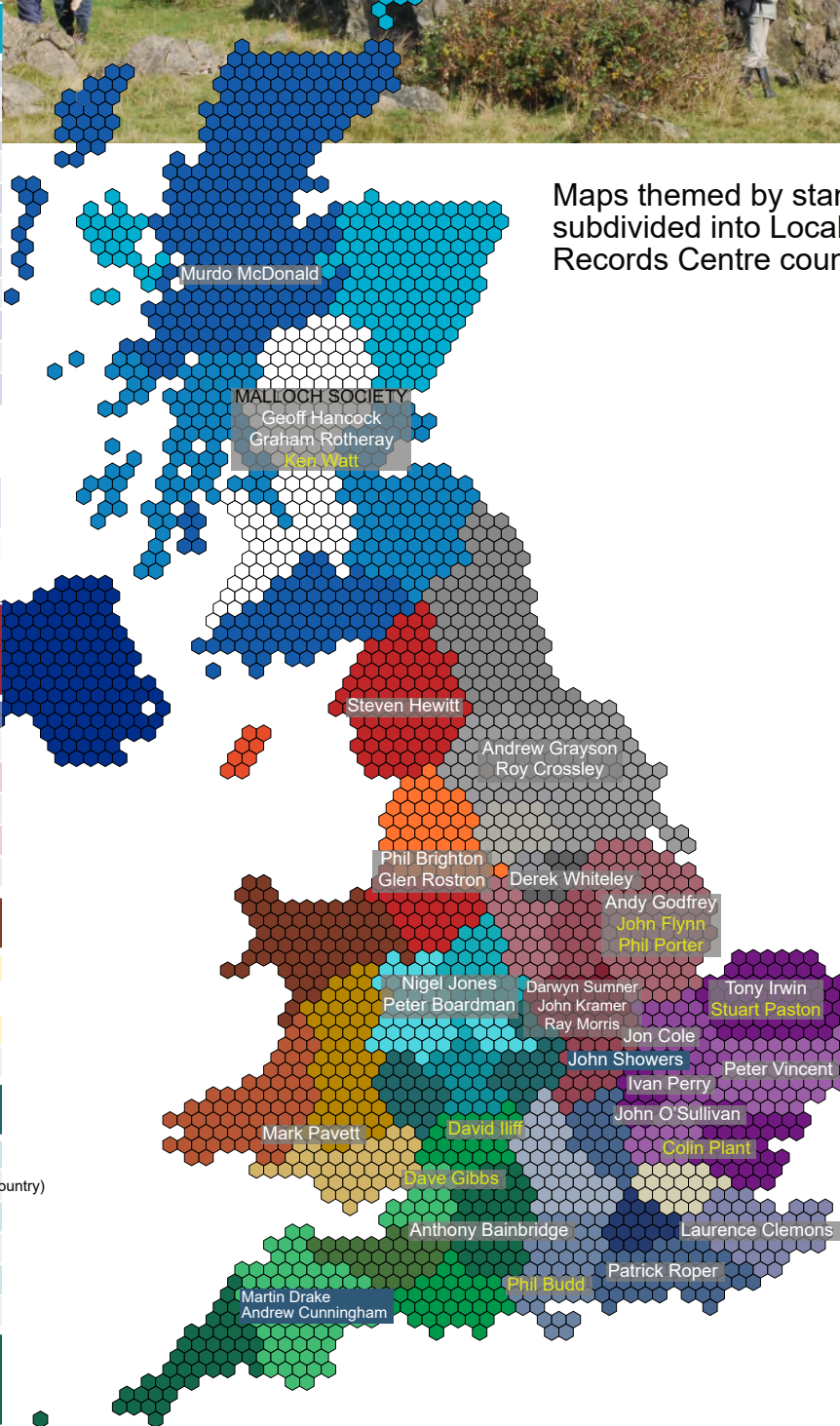
Ireland	
CEDAR (Ulster Museum)	

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.
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## 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