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Forum

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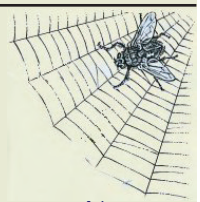

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Dipterists Forum Forum www.dipteristsforum.org.uk/index.php

Photographs: Front cover *Conops flavipes* from Llyn Dinas, July 2014 **Darwyn Sumner**, above *Stratiomys chamaeleon* **Darwyn Sumner.** Other photographs as supplied by the authors or the editorial panel who would be pleased to receive illustrations for general purposes - many thanks for those already sent. If you want to catch the next front cover, please think about the orientation, it must be upright (portrait)

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Dipterists Forum Events

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

Hoverfly Newsletter #57
Empid & Dolichopodid Newsletter #19
Cranefly Newsletter #28
Soldierfly Newsletter #2
Booking form for meetings - see this or previous Bulletins & Dipterists Forum website
Membership form

Desktop publishing: Darwyn Sumner

Editorial

Lofty records

Poised as we are, at the start of the Anthropocene era, contemplating the mass extinctions to come, it's interesting to speculate on the way that our efforts will be interpreted in the future. Perhaps some great American explorer/bio-archaeologist will come along, like the reknowned Hiram Bingham who "discovered" the Machu Picchu ruins, unearth copies of the DF Bulletin from the remains of Martin Drake's collapsed loft and come up with several similarly wild explanations about what a highly biodiverse environment looked like before the crash and what we were all doing back then.

It seems Google are doing their bit to record every bit of "now" data, their "Knowledge Vault" gathers web information and constructs a single database "*of facts about the world, and the people and objects in it*". So one day people will be able to experience an "augmented reality" through heads-up displays and choose the species of fly they want to see flitting around.

No hurry with those Recording Scheme records then, be nice though if they found their way off all those scattered PCs and notebooks and into the public domain, there's only so many collapsed lofts will keep their treasures intact.

Darwyn Sumner

Chairman's Round-up

Here are a few things that the committee has been mulling over or actually come to a decision on in the year since my first round-up.

We are hoping for an updated website that will be more user-friendly. Before Stuart sets to work on it, he would like to know what members want to see included. We have a few ideas but there's no harm in sending yours to Nathan Medd who is collating ideas.

Making it easier for young and not-so-wealthy dipterists to get a foot on the entomological ladder is one of the committee's aims. We have therefore bought starter packs of equipment such as nets and pins to overcome a basic hurdle.

Thanks to Mark Mitchell and Colin LeBoutillier, we now have all the first series and the first nine volumes of second series of *Dipterists Digest* scanned. They will appear on the website as they become out-of-print, although paper copies of in-print issues can still be bought from me. In fact, I'd be delighted to have more sales of these as they weigh well over half a tonne and block up my work-shop. In passing, I would like to thank Mick Parker for uncomplainingly accumulating these in his loft whose beams are now probably greatly relieved.

One of the tangible benefits of being affiliated to BENHS was that their third-party insurance covers us too. However, it does not cover accidents to members themselves, and this is a real risk at field meetings where we often get into awkward terrain and unwittingly get separated from buddies. So the committee decided that we ought to get our own insurance that covers us in the event of claims against us as a result of an accident. The cost is well within our ability to pay and perhaps reduces our exposure to litigation. There are two further benefits of having our own insurance. Firstly, for a small additional fee, local fly groups can be included. This entailed producing a constitution for local groups and will need a change to our own constitution at this year's AGM. And secondly, as we acquire expensive equipment, such as the 13 microscopes and more, we are investigating whether this can be included as well. Ah, the joys of risk and ownership!

Martin Drake

Here's what dipterists do!

Many thanks to those who responded to my questionnaire in the last Bulletin (77) which was trying to find out whether there's untapped expertise that the Dipterists Forum committee should be calling on. I clearly asked too many questions because I had rather few returns from a membership approaching 400, but I've distilled some generalisations. The result was a bit like taking a couple of flaps of the net in herb-rich grassland – some gems and but mostly what you'd expect. If we really are going to find more willing bunnies, we'd need to repeat the exercise with captive audiences at Dipterists Day and field meetings.

The respondents represented the complete range of expertise from enthusiastic beginners still finding where their interests lie to internationally recognised experts. As might be expected, the less experienced dipterists rated their identification skills most highly in the popular groups, such as hoverflies and 'larger Brachycera', but despite the small sample it was clear that several starting out in Diptera also take an interest in the 'difficult' end of the spectrum. The lesson here is that we should not focus on the popular at the expense of occasional sorties into the less well known groups. Indeed, this is what the Preston Montford courses do, although we've not had the nerve to include sphaerocerids or chironomids yet – two groups mentioned in this regard (the full list is Tipuloidea, Bibionidae, Psychodidae, Chironomidae, Empididae, Sphaeroceridae, Calyptrates, Muscidae). However, there does appear to be a need to re-kindle the mentor system since several of you would have branched out further or more quickly into 'difficult' groups if there was help at hand. Perhaps formalising the mentor system needs some rules of engagement, for example, not just who's willing but ensuring someone pays for postage for returning specimens. In the sample, about half were happy to help with their expertise and this fortunately was the half with the most experience, as the blind leading the blind won't help much.

Extracting records from journals and museum collections, and helping with curation of collections clearly didn't appeal much – with a few exceptions of those living close to useful collections. 'Been there, done that' came into some responses, and certainly for journals the same records have probably been extracted several times over the years. This was the most negative of the replies to any questions, which is telling since the questionnaire arose from Peter Chandler being approached by museums for exactly this type of help (Peter Chandler. 2014. Museum Collections – your local museum needs you. Bull. Dipterists Forum 77, 9-11). It would appear that coordinating this activity is beyond Dipterists Forum's abilities unless someone with great drive takes it one – but such people probably have more interesting things to offer dipterology. The tiny sample of respondents certainly won't help solve this area of concern since there are many more museums than willing helpers.

Encouragingly, at the other end of what grabs dipterists is an almost universal enthusiasm for local groups. This has been a recent DF initiative (John Showers. 2012. Starting a local Diptera group. Bull. Dipterists Forum 74, 8-9; Rob Wolton. 2013. Establishing local Diptera groups. Bull. Dipterists Forum 76, 7). It is definitely an area where Dipterists Forum can help by getting people in contact with one another, and may result in greater gains to popularising flies than any amount of record extraction. There was slightly less interest in providing help in organising local events – we had in mind helping with the nationally organised field meetings that

the Field Meetings Officer has done single-handedly, but there is still a pool of people that DF could call upon to make the job less onerous. Maybe when there are enough local groups, the national meetings can piggy-back on the local ones.

Giving talks is not everyone's idea of fun. Most of those who said they are prepared to talk have already done so at previous Dipterists Days, so we didn't find many new recruits. Among those saying they'd not want to talk was a feeling that they had to be an expert. This is true for speakers at Dipterists Day where the audience is fairly clued-up but for local non-specialist groups, such as wildlife trusts, an enthusiastic speaker need be only one step ahead of the audience to bring flies to the masses.

Under 'Anything else to say?', a few points were made:

- "Being involved with a LRC as a county recorder is a role you have not mentioned." I hope that Darwyn's article and map of local recorders may stimulate some dipterists to fill in the gaps (Darwyn Sumner. 2014. County recorders. Bull. Dipterists Forum 77, 6-7 & back inside cover). My sample was far too small to have picked out candidates so you will have to appoint yourselves if you feel competent.
- "It would be very helpful if more identification materials were made available on the web site." Yes, it would, and some has appeared, but one of the main barriers is that we all plagiarise work and especially figures for these keys. Getting permission is possible but tedious and essential if DF isn't to fall foul of copyright.
- "Why do the shorter articles in Dipterists Digest not end in a fullstop? And why does the journal not have an apostrophe in its title?" Kipling could have used these for Just So Stories.
- "I think Dipterists Forum are amazingly dynamic and the people involved deserve huge thanks." Many thanks to Keith Alexander for that vote of confidence.

Martin Drake

Adopt a species

Ecologists (threatened)

This species, like the wasp, is having a very bad year. Reports are coming in of severe losses in **South East Wales** (*Three of the Unitary Authorities have gone from two ecologists to one and in those three areas (Cardiff, Torfaen and Vale of Glamorgan) the remaining ecologists are being forced (by pressure of time) to only cover statutory issues. All non-statutory work on issues such as Local BAPs, outreach, education and managing the Councils' estates has either ceased or is dramatically reduced. All UAs in Wales used to have appointed Biodiversity Champions and the Welsh Government used to organise events to train the Champions in the importance of biodiversity issues, but this has not been done in the past five years* - Adam Rowe), **Devon** (*only one county ecologist holding an ecological post within Devon ... very unlikely to actually look at planning related issues* - Ian Egerton), **Cumbria** (*Outside the national parks, neither the county or the districts currently have ecologists or biodiversity officers. Inside the Lake District, they are restructuring the Authority so in a couple of months they won't have an ecologist either although there will be some sort of expertise remaining, I hope, but possibly not with a planning remit* - Teresa Frost).

Data arising from All Party Parliamentary Group for Biodiversity inquiry into Planning & Biodiversity.

Darwyn Sumner

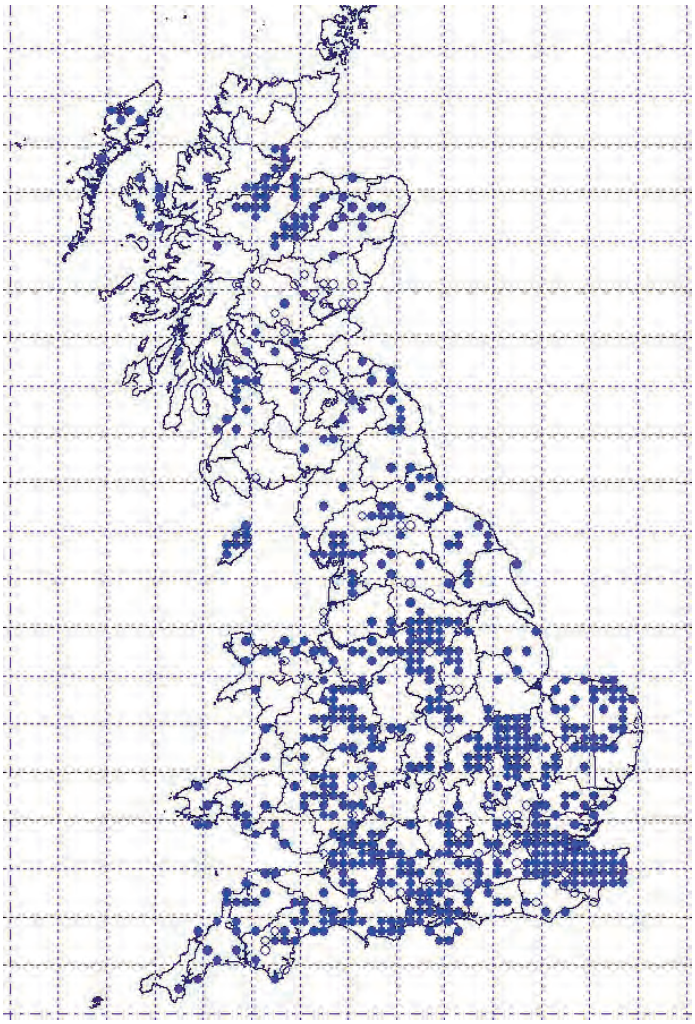
Notice board

Recording Schemes

Stilt & Stalk Fly Recording Scheme

I've caught up a little bit on managing records for this scheme.

The following rough map shows everything I've got in Recorder 6 at the moment.



Unsurprisingly for a small scheme it shows the recording effort of the contributors very well. It's as comprehensive as the Tephritid scheme only in Kent - since those records mostly came from Laurence Clemons. The Northants patch will be John Showers then those from Jon Cole across Hunts. Cambs. and on to Sussex. Derek Whiteley is very much in evidence in Derbyshire and South-east Yorkshire. Nigel Jones is responsible for a lot of the Shropshire records and Martin Drake has surveyed over a wide area in the South West and some spots in north east England. Steve Crellin is responsible for the Isle of Man and Chris Palmer for Hampshire. Roger Morris is Surrey and lots of places in the south of Scotland plus Outer Hebrides. Some Dipterists Forum field weeks feature strongly, Devon, Cornwall, Dorset, Wiltshire, south Wales, north-west England and Easterness + Moray. One LRC has sent a large batch of records, many thanks to Murdo MacDonald from the Highland Biological Recording Group, as indeed thanks to all the above.

It looks pretty good when you map every taxon but individual species maps don't really tell us too much, especially for species that are tricky to identify.

So I'm appealing for more records, even steady trickles of small numbers like those from Howard Bentley and John Kramer (and me!) are valuable in filling in gaps. I suspect there are one or two experts who might have a good collections of records too, so if you've got anything then I'll be glad to receive them.

Darwyn Sumner

Tephritidae Recording Scheme

Laurence Clemons has been in touch with the Bulletin Editors (and Martin Drake) recently. He's completed an atlas. Since it was a little too big to insert into the Bulletin, Martin has begun negotiations with Helen Roy of BRC to produce one of their classic atlases. Her response was "this sounds wonderful" so I guess that's a "yes". I won't embarass Laurence by quoting any of Martin's comments about the work, the words "glory" and "dedication" cropped up in his emails - and yes, well done Laurence. It's all in the hands of BRC now so enthusiasts will have a little wait.

(*Ed*)

Empid & Dolochopodid Recording Scheme

Newsletter #19 included in this Bulletin

Martin Drake

Soldierfly Recording Scheme

Newsletter #2 included in this Bulletin

Martin Harvey

Hoverfly Recording Scheme

Newsletter #57 included in this Bulletin

David Iliff

Cranefly Recording Scheme

Newsletter #28 included in this Bulletin

John Kramer

Records for schemes

BRC are also currently working on an important set of Diptera records, this occurred entirely by accident. Whilst I was developing the map for the Stilt and Stalks it struck me just how much of a geographical spread of dots was provided by the professional surveyors who are also Dipterists. So I got in touch with **Steve Falk** to see what the chances were of getting his records. It turns out he's busy on the Bee book and at his work for Buglife and thus unable to prioritise the digitisation of his records (amounting to 10 A4 ring binders of surveys, half of them Diptera). A little negotiation with him and his nearby Warwickshire LRC and BRC are now tapping away at the keyboards. It's all got to go on NBN Gateway (that's always the BRC deal) but I'll be involved with the later stages (after Steve's verified everything - so don't hold your breath) and will help Recording Schemes pop the records into their systems.

Darwyn Sumner

Heleomyzoidae

I am currently curating the collection of British Heleomyzidae at the National Museums of Scotland, West Granton, Edinburgh. I am also compiling a database of British records based on this collection and published records. I am willing to identify and return any Heleomyzid specimens sent to me. Any donated specimens will be incorporated in the Diptera collection at West Granton.

The Heleomyzoidae consists of a small group of closely related families in GB with a little over 60 species, with most species belonging to Heleomyzidae. Most Heleomyzids can be recognised with a hand-lens by a combination of prominent spines on the costa, one or two strong vibrissal bristles, convergent post vertical bristles and a preapical bristle on the tibia. They are medium sized flies mostly 3-10 mm long. Often they are orange-brown in colour overall, or the thorax is grey and the abdomen yellow or brown in colour, though some species are dark brown and even blackish. Wings are clear or spotted, rarely with a light and dark patterning.

There is a good national collection of Diptera at Granton, which can be consulted by arrangement with the Curator of Insects, Graham Rotheray (g.rotheray@nms.ac.uk, 0131 247 4243).

My contact details are: email d.horsfield@nms.ac.uk or by post to National Museums Collection Centre, 242 West Granton Road, Edinburgh, EH5 1JA.

David Horsfield

The Kent Field Club

The Kent Field Club was founded in 1955 and is the main natural history society of Kent. It publishes an annual *Bulletin* with details of field meetings, weather records and recorder/referee reports for the previous year, a bi-annual *Newsletter* with anecdotes, short notes and summaries and a periodic *Transactions* with more scientific articles.

All Newsletters since 2000 and Bulletins 49 (2004) to 54 (2009) may be downloaded from the Club's website www.kentfieldclub.org.uk via the publications tab. Items which may be of interest to Dipterists Forum members include the Kent Diptera summaries in the *Bulletin* and, in the *Newsletter*, Key to Green Bottles found in Kent. (**63:** 3-6), Progress with recording the Tephritidae (Diptera) of Watsonian Kent. (**66:** 5-8), Notes on studying the Chironomidae. (**68:** 7-8), Progress with recording the Craneflies of Kent. (**67:** 11-14), Notes on the Muscidae of Kent. (**69:** 13-21), Progress with recording the Flesh Flies (Diptera, Sarcophagidae) of Watsonian Kent. (**71:** 7-14), Progress with recording the Woodlouse Flies (Diptera, Rhinophoridae) of Watsonian Kent. (**72:** 4-16), Progress with recording the Diptera of Kent. (**76:** 5-15), Notes on the Chloropidae (Diptera) of Kent. (**77:** 3-15.) and Progress with recording the Diptera of Kent 2. (**78:** 11-18).

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Worldwide Biogeography

An ambitious title so I can only hope to briefly touch on a few ideas.

The UK has a unique take on biogeography due to its long history of amateur biological recording (see Chris Thompson's article in the 2010 Bulletin #69). This is a powerful and significant part of our history that at one time saw 24 Natural History Societies meeting weekly across Lancashire alone and individuals being excommunicated by the Church for choosing to study wildlife on the one day in the week when they should have been in church. Accordingly we have large numbers of individuals involved in some form of biological recording across a large variety of taxonomic groups. So too, we have a wealth of biological recording applications (Recorder, MapMate etc.) which enable us to capture species-occurrences and to share (via those applications) and disseminate this information (via local and national online systems) through initiatives such as NBNGateway.

The UK road network

I do enjoy a bad analogy, this time I've pinched one from Teresa Frost in an ALERC forum posting about data custodianship recently, Teresa just briefly mentioned the concept of a recorder "road" along which all naturalists may travel some way towards becoming a "recorder/expert", in particular she points to the value of the support and mentoring provided by local and national societies and records centres. Many venture along this road, from the photographers (e.g. on Dipterists Forum Forum and Diptera.org) who are honing their identification and photographic skills through to the experts who manage large recording schemes or have major taxonomic expertise. Naturalists will settle at the point along the road where they are the most comfortable.

Tracks in the rest of the world

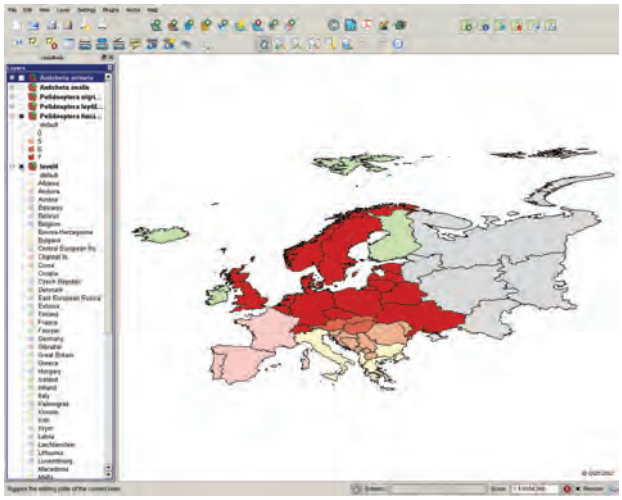
The absence of these strong networks and this cultural background outside the UK has meant that different approaches have been taken by the rest of the world. A key example would be Australia where Lucid* keys led to the development of the TDWG* and provided a lot of the background concepts that led up to the setting up of GBIF but elsewhere there has been little or nothing.

Outside the UK there simply aren't the recording tools with which we have become familiar. It wouldn't be true to say that there aren't the enthusiasts (DF members abroad, UK travellers and emigrants plus many potential recorders in Europe) who might wish to set out upon that road. It's hard to travel along it though. Discussions and papers (see Chapman et al) about the sources that GBIF uses for its biogeography firmly point towards museums as the source of species-occurrences and omit mention of public information gathering (despite one of the authors in the Chapman paper being familiar with it). Try to find a way of contributing to the records and you are presented with Darwin Core guides that are meaningless to anyone except skilled website developers. Outside of Spain (Goula, 2013) there's not even any sign of a museum or other organisation saying "*send your data to us and we'll ensure it gets on the GBIF maps*".

There's a very clear danger to us in the way that Europe fail to take into account the long unique history and culture of biological recording in the UK. An indication of this can be seen in recent mandatory UK legislation regarding the making of geospatial metadata publicly available through the internet (INSPIRE), this was legislation arising in Europe and adopted by us via a route that bypassed anyone who knew anything about the UK culture. That one may not affect us much but there will be others that hurt more - like funding cuts.

Recording abroad

So is the rest of the world a closed shop to us recorders and biogeographers? The best I could do with my foreign records until recently was to use Garmin tracks to geotag my photographs organised in iMatch5. For maps I use a GIS application (QGIS) to hand-colour European maps using my data + GBIF's data, a method that's simpler than crayons and colouring books.



Using QGIS and maps from TDWG (both free) to do a bit of "colouring in" using data for Sciomyzidae from Martin Speight's textual European distributions

Many Diptera recorders have amassed records abroad, Chris Palmer is doing a lot of work in Europe, Adrian Plant gets to many exotic places (he's in a museum so maybe they "GBIF" that data?), Phil Withers gathered together the data from the only DF foreign field trip, Malcolm Smart has much material from overseas and I, along with several others, have hunted around France and other places, just take a look at all the *posties (idem.)* on Diptera.info

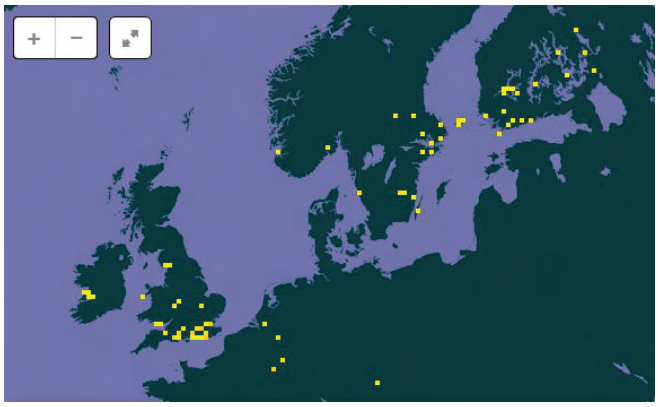
How to record outside the UK

I've been on the hunt for something that might help with recording our foreign material. Chris Thompson of the Smithsonian told us "*Occurrence data can be collected and disseminated via the Global Biodiversity Facility (GBIF)*" at our DF Annual Meeting in 2009 (Thompson, 2009) - but how?

How in the world ... ?

A brief review of the potential methods for producing or contributing to worldwide biogeographical species maps:

1. Leave your collection to a museum which contributes to the GBIF initiative - not much use for conservation, some species will be extinct before you are. There are now restrictions on what museums can accept - did you get permits for your collecting? (Phil Withers did for our French trip and all museum trips will be OK)
2. Post photographs to some online store (DFF, diptera.org, EOL, iSpot) in the hopes that someone (or some entity - *idem*. Editorial) some day may trawl these sites looking for your species-occurrences. This does happen a little; of course you must ensure that the metadata on the photograph has all the necessary information (see previous iMatch items in the Bulletin). For an outline of how these online photographic stores work, see Goula, 2013, it's about Hemiptera but the ideas are there.
3. Publish your data through GBIF via the instructions at http://www.gbif.org/publishingdata/howtopublish You'll need to locate your countries official publisher, in Europe many of these will be museums. In the UK it is the NBN but they don't reply (http://forums.nbn.org.uk/viewtopic.php?id=5221). If you're a Fauna Europaea fan (www.faunaeur.org) then be aware that all their data is drawn from GBIF.
4. Publish species-occurrences in a suitable journal (e.g. Dipterists Digest) in the form of lists, this is the current system and it's well established - and unsatisfactory unless maps are constructed by the authors. The example below indicates that such journals aren't trawled for data by anyone.



Doros profuges map from GBIF, clearly using older unverified NBN Gateway data, but try to obtain the same sort of map for *Doros destillatorius* and you get zero. Clearly no-one has extracted records from Dipterists Digest (Sumner & Withers, 2008)

5. Use iMatch5 for your personal collection by taking snaps of all your specimens and use the iMatch5 tools to adjust dates, locations etc., post online to help with identification, add that ID to the title then use 2. There's also a Map facility built into iMatch5 that may be worth exploring.
6. Try to adapt one of the UK recording packages to use Lat/Long outside the UK - good luck with that.
7. Put your records on Garmin's Basecamp as waypoints (dates will have to be put in the Notes field,) you can share sets of these as "adventures".
8. Post pictures etc. on Google Earth, share with others. This method actually has a lot of potential if you wish to share locations with others. It's also a pretty good method of determining Lat/Long if you didn't take a GPS with you.
9. Store records in tables in a GIS application. There's some real potential here, the next generation of Biological Recording applications will be GIS-based - Spain's been doing that.
10. Use the online version of Recorder 6 some time in the future. JNCC have stopped development of the desktop version and are shifting to an online application. It is uncertain what it will be capable of, they aren't consulting many users or taking much notice of comments from others (http://forums.nbn.org.uk/viewtopic.php?id=5444). ALERC have a "formal position statement" about R6 at http://forum.lrcs.org.uk/viewtopic.php?pid=3711#p3711 (members only - so ask your LRC) and there's talk of workshops so that NSSs can demonstrate how they use R6.
11. There's a way of mapping in Excel.
12. All Adobe PDFs are vector graphics files, so if you can obtain a map outline as a pdf (free GIS applications like QGIS and MapWindow are good for this and TDWG has the geospatial data) then you can open the same file in a vector graphics application (e.g. Adobe Illustrator or Corel) and do your "colouring in" and add text.

Finally, a search for "software" on the GBIF site yielded the following that might prove of value:

13. **Biota** (http://viceroy.eeb.uconn.edu/biota/Biota2Pages/biota2_download.html) - £free A very retro look and feel
14. **BioOffice** (http://www.biooffice.at/) £? Not to be confused with a whole bunch of software applications with the same name, this Austrian one (English and German versions) is a little more modern and has GIS built in, the site says you can engage in GBIF initiatives with it.

No mention of Recorder 6 or MapMate in that GBIF search, this reluctance to acknowledge the UK network is odd in view of GBIF and NBN being partners.

Sarah Hyslop of NBNT announced the milestone of 100 million records on NBN Gateway in September (http://www.nbn.org.uk/News/Latest-news/100-million-records-on-NBN-Gateway!.aspx). Thus **20% of records worldwide are generated in the UK for the UK**.

Good geospatial species data is critical to informed conservation worldwide; the UK is getting there but the rest of the world has a lot of catching up to do.

References, acronyms and links:

Chapman, A.D., Franzier, C.K., Grafton, O., Grant, S., Hobern, D., Lane, M., Wall, J. & Wieczorek, J., 2008. GBIF Training Manual 1: Digitisation of Natural History Collections Data.

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Thompson, C., 2009, *Dipterology, Yesterday, Today and Tomorrow*. Lecture to Dipterists Forum Annual Meeting. Dipterists Forum Bulletin Vol 69 p19.

TDWG = Taxonomic Database Working Group (http://www.tdwg.org/)

Lucid: This began as an application to build keys, there's a list of keys at http://www.lucidcentral.com/en-us/keys173;/searchforakey.aspx and you can get the software at http://www.lucidcentral.com/

Sumner, D. & Withers, P. *Doros destillatorius* Mik (Diptera, Syrphidae) in central France - a northern extension to its French distribution. Dipterists Dig. 15, 13–15 (2008).

NSS: National Schemes & Societies (like us, BWARS, RSPB etc.) full list on the BRC website

ALERC: Association of Local Environmental Record Centres (http://www.alerc.org.uk/)

Darwyn Sumner

Museum Collections

Museum collections audit

"Linking Natural Science Collections in Wales" is a project led by the Federation of Museum and Art Galleries in Wales (with support of Cymal & Esmee Fairburn Collections Fund). It aims to make natural history collections more accessible despite the loss of natural history expertise from the Welsh museum sector. As NMW in Cardiff is the only museum in Wales with specialist expertise it is leading in the project (Christian Baars being the front-man).

The objectives are:-

1. Undertake collections reviews of regional / local museums to establish what they hold
2. Present data on the holdings online
3. Develop a touring exhibition showing the importance of these local / regional collections.

Training in Natural History will be provided to generalist curators to enable them to maintain their collections effectively. (many entomological collections have been damaged or destroyed because curators don't know what to do with them).

The 3-year Project is currently in full swing and will run until Jan 2016

We have shortlisted 23 collections in Wales and are well into the audit process of these.

Auditors typically spend 1-2 days with each collection and generate a fairly crude list the content of which might read something like… *Diptera collection in 10 drawers, local provenance , many lacking data, poor condition, probably collected by Joe Bloggs 1930-1945, has some associated documentation etc etc.*

We also make recommendations for action such as…. . *needs specialist to assess importance, needs data extracting for recording, needs pest control and re-housing etc etc.*

So far we have not come up with any significant Diptera collections (but we did rediscover the Holy Rhubarb of Abergavenny !... honest its not Monty Python) and there are no lost Wallace specimens in the Cyfartfa Castle Museum for example. We remain hopeful. Should any good Diptera collections turn up, I will make a repeat visit to assess them in more detail.

Many people in the Welsh museums sector are interested in developing the distributed collections model and the collections review could be seen as an early step in this. There are many problems to be resolved but the idea of making as much of the 'National' collections as possible available throughout the country is one worth considering in detail.

Adrian Plant

County Recorders

Only a little to report about this initiative on this occasion. The idea seems to be working well, I had a few communications following the last Bulletin, so there are one or two new names on the map now (e.g. Derek Whiteley) and there are still a handful of people who don't wish to be formally involved but would help out with local knowledge in those blank areas. I haven't had any complaints about anyone being swamped. There are an awful lot of helpful Dipterists out there, the identification section of our website is packed with help from the likes of Malcolm Smart, Tony Irwin and Stephane Lebrun.

Darwyn Sumner

Conservation

News from the Conservation officer

National Pollinator Strategy

In March Defra launched a consultation on a proposed pollinator strategy for England and I responded on behalf of the Dipterists Forum. Overall, I broadly welcomed the consultation, especially since it explicitly covered all insect pollinators and not just bees. Indeed, the excellent supporting document, presenting evidence on the status of pollinators, recognised that other orders, especially flies, are likely to be as important for pollination, both of crops and of wild flowers.

The evidence for decline in pollination services is very patchy – while the species diversity of some pollinators (e.g. bumblebees) is known to have declined and the populations of others (e.g. honey bees) to have fallen, the overall impact on pollination remains unknown, although there is a suspicion in may be linked to the decline of many of our less common flowers with long corolla tubes.

The strategy proposed 12 priority actions to improve the evidence base. Of particular interest to us were those: (1) to develop and field test a new monitoring method; (2) to improve standards of (volunteer) recording; (3) to expand the pool of relevant taxonomic expertise; (4) to improve understanding of what motivates voluntary recorders; and (5) to support long-term storage of insect specimens in anticipation of improved identification technology. I offered our support for these actions, while stressing that adequate support for those managing the volunteer recorders, themselves often volunteers, is a pre-requisite for the successful delivery of monitoring programmes. Likewise, the provision of support to train the trainers is critical – a major gap in current resource provision.

The impact on pollinators of the increasing dominance of aggressive plant species like cow parsley and nettle within non-cropped habitats such as hedges, field margins and road verges, in response to raised nutrient levels, is an important area for further research and one I drew attention to. As several quality studies have recently shown, such non-cropped habitats are critical for the majority of farmland biodiversity and ecosystem resilience, yet many are fast becoming swamped by plants which appear of limited value to pollinators.

The proposed strategy also proposed 18 priority policy actions. Of special interest to us were: (1) the creation of a 'Call to Action' package of advice (to encourage people to take voluntary action to assist pollinators); (2) to ensure pollinators represent a key focus of CAP reform; and (3) the production of a policy and practice note on urban pollinators. Here the document was less detailed, and less clear on what actually needs to be done to improve the fate of our pollinators, reflecting the need to have more research before clear and precise actions can be developed. Nevertheless, one major flaw in the approach espoused does need to be rectified, and that is to address the provision of essential larval resources and not just adult food – both are of course needed for pollinator populations to thrive, and it is the former that is often likely to be the limiting factor.

Government's response to the consultation has yet to be published as I write this (July).

More on Reform of the Common Agricultural Policy (CAP)

As I noted in the last edition of the Bulletin, the CAP is the most significant influence on how EU farmland is managed, so the current reform process has the potential to have a considerable impact on the wildlife of the British countryside. We now know a little more about the shape of this reform in England and I am sure other UK countries, although I regret I am not familiar with what is happening in these.

In England, the much talked about Greening Measures will have little impact on wildlife, as suspected. To meet the requirement that 5% of their land should be placed under Ecological Focus Area (EFA) options, arable farmers can select from a menu of buffer strips, fallow land, catch crops or green cover, nitrogen-fixing crops and hedges. The impact on hedges will be interesting to see – farmers will not have to manage them if they choose to include them towards their 5% target, just to retain them on a year by year basis: some may be minded to let their hedges grow wider which may offer short term benefits to wildlife, but in the longer term lead to total neglect and consequent loss.

Given that Greening will bring few real benefits to wildlife, the resourcing and structuring of the successors to current agri-environment schemes, such as Environmental Stewardship (ES) in England, are critical. We were hoping that the budget for the new ES would be topped-up by transferring the maximum amount (15%) possible from the main farmer support scheme. In the event, however, Government elected to transfer 12%. This means that the total budget for agreements between Government and farmers and other land managers available for the period 2015-2020 is £3.16 billion. This sounds a lot, but 71% of this is already tied up in existing agreements. The top priority for new agreements will, as expected, be those that deliver biodiversity and water quality outcomes, with landscape, flood risk mitigation, on-farm education, genetic conservation, carbon storage, climate change adaptation and the historic environment being subsidiary objectives.

It is anticipated that in England some 35-40% of the farmed landscape will be covered by agreements, compared to the current level of 70%. The idea is that agreements should be more closely targeted to places where they are really likely to make a difference, and to this end Natural England is currently developing targeting maps in consultation with a wide range of bodies. This is a huge task given that there are over 400 datasets that are relevant – ultimately, it is to be hoped that decisions will be placed in local hands and not be tightly controlled centrally.

Within target areas, there will be two tiers of agreements, those for Priority Sites and those for Priority Areas. Priority Sites will be SSSIs and similar, and here land managers will be invited to apply for agreements and offered one-to-one advice. By contrast, agreements within Priority Areas, which will cover sites of local rather than national importance, will be on a self-service basis, with those who can meet local priorities being offered agreements. Such a self-service approach, while being comparatively cheap, is of concern to many, myself included, because experience shows that high quality advice is almost essential if high quality environmental outcomes are to be achieved.

Outside target areas, a limited amount of funding will be available as Capital Improvement Grants. Details of these have yet to be published, but they are expected to be mainly for field boundary restoration including hedge planting and laying.

An analysis of the 635 Section 41 species which occur in England and which the new environmental land management schemes could help suggests that the needs of about 65% will be covered by generic land management options contained within agreements – such species are termed Mosaic Species. The use of the word mosaic reflects the recognition that the great majority of Section 41 (and other rare and declining) species require heterogenous habitats with plenty of structure.

The remaining S41 species are termed Bespoke Species, since they are thought to require tailored management to secure their survival. This management will be provided through either requiring the uptake of bundles of options, or occasionally through the creation of species-specific options. Much emphasis is currently being placed on the development of a bundle of options called the Farmland Wildlife Package, to be applied across a minimum of 5% of the land holding.

Among the 635 species are 17 flies. These are all currently listed as Bespoke Species with the exception of four (*Bombylius minor, Callicera spinolae, Idiocera sexguttata and Phaonia jaroschewskii*) which are considered Mosaic Species. Just four of the Bespoke Species are known from more than 5 sites (*Asilus crabroniformis, Dolichopus laticola, Eristalis cryptarum, Thyridanthrax fenestratus*) and I think it will be a particular challenge for us to ensure that the needs of these are met within agreements, since they are likely to occur outside Priority Sites. (For information, the other flies listed are *Amiota variegata, Asindulum nigrum, Chrysotoxum octomaculatum, Dolichopus nigripes, Gnophomyia elsneri, Lipara similis, Myolepta potens, Neoempheria lineola* and *Odontomyia hydroleon* – these are all Bespoke Species occurring on five sites or less.)

Rob Wolton

UK BAP & **Adopt a species**

It is very pleasing to see from the accounts below that so much research, survey and conservation work is being carried out on UK BAP and other rare and threatened flies. David Heaver has let me know that in England data on all Section 41 (i.e. UK BAP species occurring in England) has now been sent to major land owners (e.g. RSPB, NT, MoD, etc), so they should be at least aware of what they have on their estates.

Blera fallax Pine Hoverfly

A full larval survey was carried out in autumn 2013 but numbers found were disappointingly low. However, the current season has provided good weather conditions during the flight period and hopes are high for a sign of improvement when the 2014 survey takes place in mid-August. Further management co-operation with Forestry Commission Scotland (FSC) has led to an improvement in the cut holes at Invereshie forest, a good number of which are now holding water all year round. Funding kindly provided by RSPB will allow for the collection of larvae from Scandinavia so that our partners in the Royal Zoological Society of Scotland (RZSS) can develop and refine captive rearing techniques for *Blera*. The Scandinavian material will not be released into the wild.

Iain MacGowan

Dolichopus laticola and *Dolicopus nigripes Broads* and Black-footed Dolly-Flies

Martin Drake is giving a paper on the ecology of the two species at the International Congress of Dipterology in Pottsdam (Germany) in August. (See Martin's paper in Dipterists Digest 2013, Vol. 20 (2), pp 191-199.) It is good to see that the inclusion of flies such as these in the UK BAP list (now known in England as Section 41 species) can have such concrete results in terms of improved understanding of ecology and conservation needs.

Dorycera graminum Phoenix fly

Andy Godfrey found a new site for this picture-winged fly (Ulidiidae) last year, near Canterbury in Kent.

Dorylomorpha clavifemora Clubbed Big-headed Fly

As part of Natural England's Species Recovery Project, David Heaver reports that he has asked for larval leafhoppers to be collected to try and find pipunculid larvae, and to use DNA markers to work out what parasitizes what. We must wait for any results until next year.

Hammerschmidtia ferruginea Aspen Hoverfly

No specific work is being undertaken this year but indications are that after two rather stormy winters there is a healthy supply of dead wood. Meetings have been held with FCS to discuss management of the most northerly and isolated aspen stand containing *Hammerschmidtia*, at Achany Glen, and a plan agreed to encourage further aspen regeneration and increase stand size.

Iain MacGowan.

Idiocera sexguttata Six-spotted Cranefly

David Heaver reports that sampling is going ahead at Stony Moors in the New Forest to try and re-find this species.

Lipsothrix nobilis Scarce Yellow Splinter

Following the first British record of this cranefly from the Matley Bog in the New Forest by Henri Audcent in the 1930s, and the discovery in 2004 of the distinctive pupal exuviae of this cranefly from Highland Water in the New Forest by Nick Mott, John Kramer caught a male in very wet alder woodland at Matley Bog in May 2012. As Andy Godfrey remarks, the apparent disjunct distribution of the species is remarkable since it is otherwise known from the Welsh Borders and other parts of western Britain up to Scotland. Andy has written a couple of reports discussing records and the distribution of this and allied craneflies, following surveys he carried out between 2003 and 2006.

Milichia ludens (RDB2) Milichiidae

Good news from surveying for this small black fly with the distinctive wing notch. Its life style is to breed in the nests of the tree-nesting Jet Ant *Lasius fuliginosus*. Two such nests in ageing ash trees had been found on the margins of Cothill Fen SAC in Oxfordshire. This spring, monitoring the nest tree at Cothill NNR on 15th April revealed 6 adult *Milichia ludens* sitting on the bark of the tree just above the main exit/entrance hole to the jet ant nest. The other ageing ash tree with jet ants in residence is at adjacent Parsonage Moor SSSI, so this tree will be the target for monitoring next spring. It seems *Milichia ludens* only sits on the bark of the nest tree in coolish conditions. Under warm sunny conditions, the flies are on the wing flying around the tree and are difficult to record. The flight period is mid-April to June. They do not seem to visit flowers for nectar, so sweeping around the tree on these is unproductive. Monitoring visits are most effective either early morning or on cooler overcast days and the bark of the nest tree needs to be carefully scrutinised for any secretive small black flies.

Judy Webb

Myolepta potens Western Wood-vase Hoverfly

David Heaver reports that Saul Herbert, Natural England site manager for Moccas Park NNR, has analysed the age class spread of horse chestnut trees, the larval habitat of this hoverfly, and (rather worryingly) found a gap. Saul is hoping to get all the parkland trees re-surveyed.

Odontomyia angulata, Orange-horned Green Colonel, (RDB1) Stratiomyidae

No news yet on this fly which breeds in Cothill Fen SAC's unshaded waterlogged moss mat, but the flight period has only just started at the time of writing, so I have some confidence the good numbers seen last year will soon be found. **Judy Webb.**

Odontomyia hydroleon Barred Green Colonel at Seivedale Fen

It was perhaps inevitable, following last year's high count, that this year would be different. In recent years, the peak counts of *Odontomyia hydroleon* have been made in the second to third weeks of July. This year, though, everything seems to have been a couple of weeks ahead of normal and so I visited Seivedale first in the last week of June. Roy Crossley then visited on 2nd July... neither Roy nor I located any on those visits (and in fact flies generally were rather scarce compared to normal). Work-related trips meant that I was not able to visit again until 12th July, and again no *hydroleon* were located. There were a few Strats about... *Oxycera dives, pardalina, pygmaea and nigricornis*...but again flies were not present in their usual numbers. I tried once more on 15th July, but again unsuccessfully. I assume that the emergence was earlier than normal this year and that it occurred within the first to second weeks of July, when I was unable to visit. Next season it will be important to visit across the period in order to establish the continued presence of the species. **Ian Andrews.**

Phortica (Amiota) variegata Variegated Fruit-fly

Steven Falk reports that together with Paul Brock he saw and photographed quite a number of this rare fruit-fly at Furzey Gardens in the New Forest last summer, on a very smelly sap run on an ornamental apple (for photos search Steven Falk Flickr Collections). Paul Brock has since observed the fly at several more sites in the New Forest, all goat moth trees with sap runs. Steven and Paul are helping David Heaver at Natural England with a Species Recovery Project to investigate the status of the fruit-fly in the New Forest, lower Wye gorge and at a wood near Canterbury using 'banana baited bottle traps' – more on this, hopefully, in the next issue. Steven strongly urges DF members to scrutinise any goat moth trees with sap runs carefully to see if the fly is there.

Phortica variegata, Furzey Gardens, 2013 m, Steven Falk

Rhamphomyia hirtula Mountain Dance-Fly

Whilst no targeted work has taken place on this species, survey and collection of montane Diptera continues across Scotland with some 20 sites having been sampled to the end of July. All of this survey work is of value in defining the potential range of this species. **Iain MacGowan.**

Sphaerophoria potentillae, a RDB hoverfly

On 20 June I called in at the site where I found this fly last year, Common Moor (East Putford) in north Devon, and spent an hour sweeping. I caught just two *Sphaerophoria* in all this time (and very few other flies). However, one was a male and turned out to be *S. potentillae*. The habitat was wet closed tussocky *Molinia-Erica tetralix* heath, about 30cm tall, with sprawling heath tormentil *Potentilla erecta*. An area nearby of short more open heath produced nothing. I have not yet found the time to visit the site in mid-Cornwall were it has been recorded. I wonder, is this a species of mature species-poor heathland? **Rob Wolton.**

Stratiomys chamaeleon, Clubbed General Soldierfly, (RDB1) Stratiomyidae

This attractive large black and yellow soldierfly has an aquatic larva that breeds in shallow warm marly pools in Cothill Fen SAC, mainly at Parsonage Moor SSSI and Dry Sandford Pit SSSI fen nearby in Oxfordshire. It may take three years to reach maturity and adults are on the wing from July to August. So far this season adults have not been seen in the fens, but this is a species well known to need nectar from large umbellifer flowers such as hogweed (see the field report in this issue from the Bangor field meeting where this fly was found on the Anglesey fen margins) and there are few suitable umbellifer flowers near the actual breeding sites here in Oxfordshire. However, the very good news is that a survey visit with Chris Raper to an old sandpit site very near the breeding site fens revealed one male and one female *S. chamaeleon* nectaring on the wild parsnip flowers on 20th July.

Chris Raper photographs *S chameleon* on parsnip Cothill pitt 20.07.2014 (taking a mobie)

This old sandpit (Cothill Pitt) has abundant flowers of many types and is important for a range of scarce invertebrates. The survey visit with Chris was because this sandpit is now under threat of development comprising a number of holiday chalets and services, with half the site to be landfilled. It has already been found to be important for rare ground nesting solitary bees because of the hot, dry sandy soil and has 30 breeding butterfly species including an important population of small blue. Now we know it is important to support the adults of *S. chameleon* as a nectaring location. **Further invertebrate surveys are ongoing and anybody wanting to help gather fly or other species information to battle future planning applications is invited to contact me directly for details.** A 'Save Cothill Pitt' campaign group has formed and a website is under construction. The site has a concrete haul road through the centre from old sand extraction days and would be ideal as a nature reserve although it is going to always have a large number of dog walkers which disturb birds, but not invertebrates. It may be that the campaign group will try and raise money to buy it from the developer. **Judy Webb.**

female clubbed general soldierfly Cott Pitt 20.07.2014 (Judy Webb)

Thyridanthrax fenestratus Mottled Bee-fly and *Bombylius minor* Heath bee-fly

Chris Spilling reports finding good numbers of *Thyridanthrax* on Godlingston Heath and at Studland National Nature Reserve in Dorset. Its host species, the sand wasp *Ammophila*, was plentiful so it should put in good appearances next year. In late July, as this was being written, *Bombylius minor* numbers were currently building up on Godlingston Heath and Studland NNR, with adults seen feeding on sea lavender in the salt marsh around the Poole Harbour side of Studland. Chris comments that the numbers seem surprising as most of Studland was under water at the end of last year because of the appalling autumn weather.

Triogma trisulcata, a cranefly, Cylindrotomatidae, RDB3

Sweeping in the Cothill Fen SAC, Parsonage Moor section, early this spring confirmed the presence of one specimen of this small drab cranefly with wings shorter than abdomen (typical of the 'damsel' craneflies) and with a distinctive rather pitted head. Wanting to give it a common name, I have come up with the suggestion of 'dimple-cheeked damsel', which has an attractive ring. The larva feeds like a caterpillar on unshaded water-logged moss mat and is camouflaged with green frilly projections all along the body. It is on the wing extremely early in Oxfordshire (from mid- April) and is thus easy to miss if surveying does not start early enough.

Judy Webb

Techniques

Photography

Many thanks to the Dipterists who have taken an interest in this topic, Michael Ackland is the major contributor this time, his experiences may be familiar to you. All I have is the list of terms below (posted on the DF website, so there are several contributors to the list of terms) and the news that **iMatch5** has now passed its Beta test and the full version is available from photools.com.

Glossarie

Following the popularisation of the term "selfie" to describe a photograph taken of oneself and its antonym "otherie", a number of other definitions of photograph types are offered here.

Flie - incorrectly identified dipteran (or other insect), usually found posted on identification websites, in popular photographic magazines or in the Independent newspaper.

Waspie - selfie in costume

Buggie - photograph of entomologist(s)

Creepy-crawlie - photograph of wildlife television or radio presenter (see oddie)

Wickie - photograph of invertebrate-rich habitat (based on "wick" meaning alive or crawling as in *a dog wick with fleas* or *a head wick with nits*)

Twiggie - photograph of twig from which insect has just flown (see also **Gonnie**)

Binglie - photograph that you don't recall having taken (based on the ring-tone of the magical personal *dis*-organiser - *bingly bingly beep* - which travelled down an alternative time-line in a Terry Pratchett novel and recorded things that its owner didn't experience)

Mobie - image captured on a mobile phone

Postie - person who posts photographs on ID websites.

Blankie - photograph that doesn't appear because postie pressed the wrong buttons

Murkie -photograph out of focus. (also **Fuzzie** and **Fuzzie-blobbie** though I do think Ken Merrifield was getting rather too specific about the classification of photographs one would tend to delete)

Knowie - person who gives a name to a photograph when there is no specimen for confirmation

Thingie - in general usage for unidentified object.

Ouchie - a **Thingie** that bites or stings

Galleryie - a **Postie** who puts an image of an unidentified fly in the Gallery where nobody could reply with an identification

I've tried to restrict the list to photographic terms but honourable mention should go to Laurence Clemons' **Chinerie** - one who thinks everything can be identified from a popular field guide, Alan Stubbs' **Pooterie** - a person who pooters and his definition of **Internet**.

other culprits: Darwyn Sumner & Michael Ackland

Taking photographs through the microscope

Introduction

This article is a record of my progress in finding out about the techniques and practice of photographing both genitalia and various other parts of flies, with emphasis on Anthomyiidae, but I have used a few other groups such as small craneflies, as they have rather three dimensional genitalia structures which are useful in testing out photo stacking. It is by no means a guide to this subject. I have no past experience in photography apart from the occasional snapshot with a compact camera, generally set on auto. My experience may be of interest to those who have attempted to take photographs with one of these cameras and a microscope, and have been disappointed with the results.

Scope of the research

Many of the excellent images of insects on the web, especially those classed as photo-micrographs (taken through the microscope) and macro-photographs (SLR cameras with various zoom lenses) require expensive equipment. Micro-photographs seem to refer to those taken by spies with a mini-camera, and were at one time popular with recording data from books, but this seems to have died out now in the computer age. One can spend a great deal of money on set-ups using high power microscopes, built in camera etc. Some excellent macro-photographs have also been taken with an SLR camera mounted on a track with various filters and attached lenses. These are generally used to take shots of whole flies. These I have not considered in this article.

My interest was to find out if, by spending a few hundred pounds, I could get a set-up which would take reasonably clear genitalia photographs, and also details of opaque parts of flies such as heads, leg chaetotaxy etc. Although I have mainly used drawings to illustrate genitalia in my papers in the past, and still consider these to be an excellent way of studying the structures, difficulty with using a very old camera lucida and the problem that new ones are not apparently obtainable in Britain, has encouraged me to consider other methods. As far as I have been able to find out, the only country manufacturing modern camera lucidas is India. They seem not to be interested in exporting just one to an individual!

First investigations

I learnt fairly early on that the compact camera, with its fixed lens, is not really suitable for photo-macrography. I had managed earlier to get a few reasonable photos by holding the camera over the eye-piece of the microscope, but it is very hit or miss. It is also impossible to take a stack of photos. Several learned posts on the web also explained that the optics are unsuitable. I then considered a compound microscope with camera permanently built in. A possible model was offered by Brunel Microscopes of Chippenham (Sp 27A with a 1.3 megapixel camera). Helen Murray of Brunel kindly offered to take some sample photos of a slide which I sent her. The results were not encouraging, and she suggested that I would do better with an SLR camera. She recommended that a Canon EOS SLR 1100D with about 12 megapixels would provide photos with more scope for editing. This particular model allows remote shooting, i.e the camera can be linked to a computer monitor. The controls of the camera such as adjusting the exposure, setting the light balance, and opening the shutter can then be controlled with the mouse. This has great advantages for taking a series of shots focussing on different levels of the

depth of field, and these 'stacks' can then be processed with suitable stacking software to produce a final photo with all the levels combined. The list of Canon cameras which allow remote shooting can be found on the Canon website, and no doubt other SLR camera makes also allow remote shooting.

(Watson monocular). Watson microscope with draw-tube and flexible lighting.

Equipment and methods

The compound microscope purchased from Brunel (SP27) I found very good for photographing transparent objects such as genitalia. It has a built-in LED bottom light which can be adjusted for brightness, and will run from the rechargeable battery in the base or with a cable from the mains. It has a very good fine focus dial, mechanical stage, substage condenser and an iris diaphragm, all of which make it possible to orientate the specimen and find the optimum light conditions.

I must emphasise that good dissections and preparation are required. I mount them from glycerol into a cavity slide with glycol jelly. It is easy to make your own which needs to be diluted to such consistency that it will be just solidified at room temperature, but when heated to about 40-50 degrees Celsius is a liquid. I use a small bedside halogen light which has a bulb holder which folds back on itself. The glass plate covering the bulb is then horizontal, upon which the cavity slide can be heated up. A very short spell on this plate will liquefy the jelly, into which the dissection can be placed and examined under a stereo microscope, and arranged with a fine micro-pin to the desired position. If the jelly starts to thicken before one had finished the arrangement, a short spell on the hot plate will permit final positioning.

The camera does not require a lens as the adapter (supplied by Brunel) has a X10 lens in the tube. I bought the camera from Amazon as a camera back only. This cut the cost down as I don't at present need to use this camera for more normal photography. The adapter which fits onto the camera in the place of the lens also comes with some other diameter collars, so that the camera can be used with other microscopes, such as a stereo microscope. You will find Brunel very helpful in supplying you with the correct adapters if you give them the diameters of your existing microscopes.

(SP27). Brunel microscope SP27 with Canon Camera linked to monitor.

Limitations of the Brunel compound microscope SP27

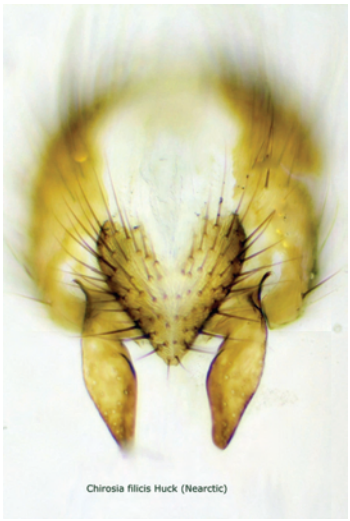
I found that the working distance on this microscope between the stage and the objective lens is too small to allow taking photographs of parts of a fly (legs, head etc.) if the whole pinned specimen is used. If the parts are removed from the specimen it might be possible to attach them to a slide, but generally it is better to keep the specimen intact. I found that a blob of white tack, formed into a small cone and stuck onto a slide, makes a satisfactory base into which the pinned specimen can be arrange at the required angle. The advantage of putting this on a slide is that the mechanical stage controls make it easy to move the fly small distances.

(Chirosia flavipennis). *Chirosia flavipennis (*Fall.*)*, male head showing arista.

Luckily one of the attachment collars supplied by Brunel fitted the eye tube of an old Watson microscope I have, which has sufficient working space to allow a whole fly (about the size of a large anthomyiid) between the stage and the objective lens. Also these older compound microscopes generally have a draw tube holding the eye-piece, which will vary the size of the image. For top lighting I use a pair of flexible light arms that I use for my stereo microscope. I also used the objective lenses supplied with the SP 27 which are superior to the old Watson lenses.

Operating the Remote Shooting mode

- The Canon 1100D comes with several CD's, which include the programme for remote control. Install this on your computer.
- Attach the adapter to the camera. Insert the camera in to the eye tube of the microscope.
- Check there is an SD card and a full battery in the camera. The remote control uses up the charge fairly quickly, so I purchased a spare one, which I keep ready if the battery should run out during operations.
- Connect the camera to a USB socket on the computer with cable supplied with the camera.
- Click the icon on the desktop to open the EOS facility.
- When the camera controls appear on the monitor screen, click "Remote shooting".
- Adjust the mechanical stage, lighting, focussing etc. until the subject appears on the monitor. This is best done on a low power. It takes a while to become accustomed to getting all the settings just right. I found trial and error the only way to get the best results. Both the Canon software, manuals and instructions supplied by Brunel will guide you in the right direction
- Using the fine focus control focus on the top level of the depth of field. With the mouse click on the shutter button to take a shot. Focus down through the depth of field, taking a shot at each level. Depending on the thickness of the genitalia, I use I found I needed between 5 and 25 shots. These stacks can then be opened in a stacking programme to render them into one composite photo.



(Chirosia filicis Huck., Nearctic). *Chirosia filicis* Huck., male hypopygium, caudal view

Stacking programmes

There are a number of free programmes available to download from the web. I found some of these rather difficult to use. Helicon Lite was a recommendation from several people, so I downloaded a trial version, which lasted one month. I found it gave excellent results, was very comprehensive but straightforward. To continue using it, one has to purchase a years licence which costs about £20.

Equipment used

Brunel Microscopes Ltd: Monocular SP27 with four objective lenses, X2, X4, X10,X40. Canon Eos to microscope adaptors, SLR +Px + T2. www.brunelmicroscopes.co.uk

Canon camera: EOS 1100D Digital SLR camera (Body only)

Helicon Lite stacking programme: www.heliconsoft.com/software

Photo editing programmes: Picasa free to download from the web. Photoshop Elements 12.

Useful websites:

http://home.online.no/~k-rognes/PublicationsInZoology.htm
http://www.photomacrography.net/forum/viewtopic.php?t=23157
http://www.microscopy-uk.org.uk/

Acknowledgements

I am grateful to a number of people who answered my questions and made suggestions. In particular Mike Pugh guided me on many photographic subjects and gave me links to useful websites. Knut Rognes (Oslo) was very generous in sending me photos of his camera/microscope set-ups, and explained how he operated them. His website in which all his publications and photographs are available to view is exemplary.

My thanks to Helen Murray of Brunel Microscopes who answered all my questions. I could not have made my final buying choices without her help.

Michael Ackland

Extracting flies from alcohol

Although the best preserved dry specimens are undoubtedly flies that have been pinned fairly soon after capture, sometimes it is not practical to deal with large numbers of specimens in the time available. This situation can arise for the following reasons.

- The collector may not be a specialist in the preservation of flies, but is in a location where he or she is willing to collect material for study by others. It is little trouble to drop dipterous material into numbered tubes containing 75% alcohol, make a note of the data, and later add this to a pencilled note in the tube.
- Material collected in Malaise or pit traps. This can be transferred to alcohol tubes and distributed later to specialists, if necessary after sorting.
- Bred material by general biologists or ecologists, often working abroad. Transport and postage costs are considerably reduced by the convenience of being able to send flies in small plastic tubes or vials. Care needs to be taken over special transport and postal requirements.

Methods of extracting flies from alcohol

Many methods have been reported in the past, using various chemicals, and other more complicated techniques such as freeze-drying which requires expensive or large equipment. After trying various solvents such as 2-ethoxy-ethanol and ethylene glycol, I came across some years ago an American museum article which recommended acetone. Acetone has the advantage of being available in many chemists at a reasonable price (I bought mine from a local Boots).It is relatively safe to use if care is taken to avoid inhaling it, and keeping it away from flames. The amount used in the following procedures is very small. The following method is specifically intended for small flies such as Anthomyiidae.

Method of using acetone.

- Put a small amount (10cc) in a glass container such as a small bottle with a tight fitting plastic snap-on lid.
- With fine forceps remove one or a few flies (preferably not more

than 3-4, and all with identical data), and place on a sheet of absorbent paper such as kitchen towel or filter paper. Fairly quickly, when most of the surplus alcohol is removed, place one of the flies on a small 1 inch square block of plastozote. I pin anthomyiids sideways through the suture in front of the wing but below the notopleuron with associated setae which are important. Insert a small 1 cm micro-pin about halfway through the fly.

Extracting watch-glasses, jars and setting blocks.

- Immediately drop the fly with pin into the shallow container of acetone.
- Repeat with the remaining flies on the absorbent paper.
- After about 2-6 hours (depending on their size) the flies are ready to be removed. It is advisable not to leave them for too long as they will become brittle.
- Remove the plastic lid and lift one of the flies out of the acetone, immediately replacing the lid, as acetone is very volatile. Drain briefly on the paper to remove surplus acetone, but leave some with the specimen. Insert the pin into a small block of plastozote, examine the specimen under a low power stereo microscope and blott off the remaining acetone with a small piece of filter paper cut into a point. At the same time I generally blow gently to hasten the evaporation of the acetone, and attempt to pull the legs downwards a little with fine forceps. The wings may be somewhat folded, and can be teased out with a fine pin. I sometimes use cheaper non-stainless steel pins to hold the legs and wings in the desired position, and also, with Anthomyiidae males, to separate the hind femora from the abdomen, so later to be able see the fifth sternite. I should emphasize that one is not attempting to set the specimen, as little time is available before the fly dries out, and then the appendages become very brittle and will break off.
- Continue with all the other flies remaining in the acetone container.
- After a short time the specimens will be dried out (1 hour is generally sufficient, but large specimens may need more), and the setting pins, if used, can be removed. Do this under the stereo microscope as the legs are now quite brittle.

Before mounting on a strip of plastozote with staging pin for labels etc, it is advisable to fix the fly onto the micro pin. Because of the degreasing effect of the acetone the usual body fluids which normally hold the fly on to the pin are not present, and it will spin around on the pin. With some dilute glue (such as seccotine) and a fine pin held in a matchstick (or cocktail stick), place a tiny blob of glue under the thorax around the pin. Do this under the stereo microscope. If the glue is dilute enough it should run up into the thorax around the pin.

Specimens treated with this acetone method generally are in good condition, the head and eyes do not collapse if the flies were not teneral in the first place. This article is written with Anthomyiidae in mind. Other families may require other methods. Fungus gnats, for example may be suitable for identification whilst still in alcohol. |But I have found Anthomyiidae quite difficult to identify in alcohol as they are generally dark, and the legs may be twisted and hard to orientate to examine the leg chaetotaxy. If one removes the postabdomen to prepare the genitalia, and this is returned to the original tube with the rest of the fly in alcohol, the dissections can get lost. This is a good reason for drying the specimen and mounting the genitalia in glycerol in a micro-vial on the staging pin.

My thanks to Ken Merrifield for making valuable improvements to the manuscript.

Leucophora obtusa (Zett.), dorsal view of head.

Leucophora obtusa (Zett.), lateral view of head.

Michael Ackland

Members

Membership Matters

By end of July 2014 we had 369 paid-up members. This is about 50 less than we had at the end of 2013. We have had to chase a lot of late payers and people who did not alter their banker's order mandates. This has cost the Forum over £250 and taken a lot of work by several committee members in administration and postage and packing. I do urge all members to keep up to date with subscriptions, which fall due on 1st January each year.

So far this year we have had 23 new members join and 11 members have resigned.

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

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

Membership & Subscription Rates for 2014

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

UK

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

Dipterists Digest: £12 per annum.

Both of above: £20 per annum

Overseas

Dipterists Forum and Dipterist Digest: £25 pa.

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

Cheques should be made payable to "Dipterists Forum".

BANKERS ORDER PAYMENTS

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

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

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

John Showers

Obituary

Dr Mark A. Jervis a personal reflection

It was with great personal sadness that I heard about the passing of Mark Jervis, in tragic circumstances and still much too young, in June of this year. I first met him when I came to Cardiff as an undergraduate in 1978, where he was one of my lecturers and briefly a tutor. We had a common interest in entomology, although at that time I was primarily a lepidopterist with only a passing interest in other orders, and we immediately got on well. He was charming, funny and self-deprecating but the range and depth of his knowledge was clear even then. Without even meaning to he was to have a profound effect on my future development, when in the final term and with a first-year project looming, he suggested "why don't you look at syrphids?" Within a few days he was driving me and a like-minded friend up to the Coed-y-wennallt woods, just to the north of Cardiff, where he was soon swishing his net about with gusto. "Look at these fellows" he told us, his eyes shining with enthusiasm and holding a net containing a seething mass of *Syrphus*, *Eristalis*, *Episyrphus* and what we then still called *Metasyrphus*. "See how much like wasps these ones look. Great mimics. Huge diversity." And so the Diptera, a group I had barely looked at until then and about which I knew next to nothing, took a hold of my life which has never diminished. He introduced me to Coe's key and set about explaining the rudiments of Diptera identification, checking my identifications and making suggestions. It was on the strength of my Diptera knowledge, still then something of a rarity, that I got my first real biology job a few years later.

In the years that followed my graduation I corresponded and met with Mark on various occasions. Not that often – I wouldn't want to suggest that we were close friends or that I knew him that well – but he was always friendly and encouraging, keen to know what I'd been working on and always willing to help when I came scrounging for favours. As when, for example, in those pre-internet, pre-PDF days, I asked him for a copy of his excellent paper on *Chalarus* (1992, *Zool J Linn Soc* 105: 243-352): within a few days, back came a photocopy with a cheery handwritten note: "Tough little group, but very satisfying – lots still to do. You could make some useful contributions." And later when I was working on a three-year research project on the hornet robberfly, *Asilus crabroniformis*, for the then Countryside Council for Wales and needed some SEM photographs taken, it was Mark to whom I turned and who responded with his customary enthusiasm, inviting me in for a cup of tea and a chat: how was the project going? Had I seen this paper? Had I spoken to so-and-so? How was I finding life as an independent consultant? And so on, for more than an hour, when I am quite sure he had better things to be doing, before taking me off himself to go searching for the SEM technician and make the necessary arrangements. He needn't have taken the time to be so kind and interested, but he did so and it was entirely characteristic of the man I knew. He always treated one as an equal, without any of the condescension which sometimes afflicts those at the top of their own particular mountain and who forget what it was like to be a toiler in the foothills. He always remembered me whenever we met; had often seen some little note or other that I had published somewhere; always wanted to know what I was working on now. Others will no doubt set out the details of his extraordinary career and academic achievements, but to me it was not just that he was a great entomologist – and make no mistake, he was a *great* entomologist – it was his humanity, generosity and ordinary decency which I will remember most.

David Clements

Review

Online

J.T.Smit
Conopidae
An online key to Nederland species at http://www.repository.naturalis.nl/document/507043

Books

Ecology

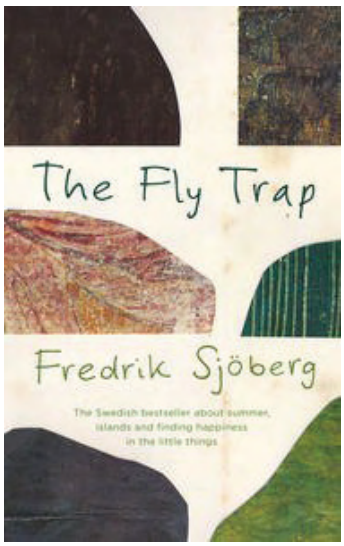
THMCF - various authors
Thorne Moors: A Botanical Survey
Thorne & Hatfield Moors Conservation Forum, 256 pages, limited print run, reserve via THMCF(Flora) PO Box No 879, Thorne, Doncaster, DN8 5WU or via Execsec@thmcf.org

Details of a new book which may be of interest to fellow Dipterists Forum and BENHS members. It isn't an entomological publication but Thorne Moors is popular with entomologists

Andy Godfrey

Diptera

Fredrik Sjöberg
The Fly Trap
ISBN: 9781846147760
Particular Books (an imprint of Penguin), 2014, hardback, with dust jacket, 278 pages, £14.99



Here's something different about entomology! In fact, it's so different, it's hard to say exactly what it is. Certainly, this book (first published in Swedish in 2004 and in German in 2008), is in large part a biography of the astonishing René Malaise (a Swede despite his French name), the inventor of the eponymous trap, and a working entomologist whose preference was for sawflies. With a complicated personal and romantic life, he was also an adventurer (especially in Communist Kamchatka and wilderness Burma in the early decades of the 20th century), a hunter and dealer in sable fur, a fine-art collector and a hugely-popular author. In one of his books, he described his experience as an eye-witness, and very nearly a victim, of the stupendous Japanese earthquake of 1923 that killed a hundred thousand people. And that was only one of the earthquakes he survived. In the end, it was a net that did for him.

The Fly Trap is also partly an autobiography, focusing in particular on the author's life on a Swedish island since the 1980s, and on his fixation with its hoverflies. There is good science writing here, and original observation, but it's more about what it's like to be a collector of flies - in the giddy times (as when finding a long-sought species) and the challenging ones (when dealing with belligerent fellow-citizens). Here is what it was like to observe Sweden's first invasion of *Eristalis similis*, and to receive the present of a hoverfly caught in a sock on a boat. As a Dipterist, you are pretty much guaranteed to find here some reflection of your own experience, and your own motivations, whether noble or otherwise!

There are refreshing observations on working with actors, on art-theft, on slowness and on the hatefulness of rainforest. The author has his own travel tales to tell. His story about in-flight one-upmanship, involving great timing and a mirror, is entertaining, whether or not it is strictly true in all particulars. After all, some reviewers have apparently called *The Fly Trap* a novel.

The whole book is bathed in an easy-going, self-deprecating light. But grand figures all make relevant appearances: Linnaeus and Darwin, Ringdahl and Chvála – as well as Strindberg, D.H. Lawrence and Bruce Chatwin. There are mentions of our own hoverfly literature – the county-studies of Somerset, Dorset, and especially Surrey (Sjöberg's acknowledged favourite). Happily or not, there are no name-checks for British Dipterists – at least none more recent than Verrall!

The translation is eminently readable, though you may occasionally be brought up short by a not-quite-correct entomological term, or an inappropriate Americanism. These imperfections are unimportant, however, for here is captured the joy of some of the finest things in life: adventure, love, and flies – as the author points out, all of them essentially free for anybody.

This is a small volume, unillustrated, and the lines are rather few to the page, but it feels good value for money. It would make a unique gift for a dipterist colleague, and it's worth reading yourself. Indeed, you may feel like doing so more than once, to get all the detail out of it. As the author might well say, it's up to you of course.

John O'Sullivan

Biodiversity in the New Forest. Edited by Adrian C. Newton. 2010. 237 pp, with 74 figures, 58 tables and 60 plates (51 of them in colour). Bournemouth University.

Postscript

In the Spring Bulletin (pp 21-23) I reviewed the book *Biodiversity in the New Forest*, edited by Adrian C. Newton (2010). In that review I quoted statistics given in that book for both total number of species per insect order (not estimated for Diptera) and for species with conservation status recorded from the New Forest in each group. Paul Brock has kindly pointed out that his book *A photographic guide to Insects of the New Forest and surrounding area* (2011, 314 pp, Pisces Publications) gives a table showing

numbers of species of conservation status in each insect order (p. 301). This indicates that the totals for Coleoptera, Diptera and Hymenoptera given by Newton *et al*. were all significantly below the true figures for species with conservation status. The totals given by Paul were based on information in the 2001 New Forest SAC Management Plan, but modified to relate only to post 1970 records, i.e. excluding species that had not been recorded since that date and considered possibly extinct in the New Forest. This revised total for Diptera was 163, of which 108 were Nationally Scarce and 45 assigned to RDB1, RDB2 and RDB3 categories. This didn't attempt to take into account proposed changes in status using IUCN criteria in the recent reviews of scarce species, so without a full species list (33 of the species concerned are listed on p. 302) the precise number of species with current conservation status that are included in this total cannot be estimated.

Compilation of an overall list of the Diptera of the New Forest, based on all available records, is still a necessary step towards assessing changes in status of the Diptera fauna of the Forest, and in determining which species are significant locally or nationally. This should be a future priority and contribute towards the ongoing process of recording in the area.

Discussion by Newton *et al*. of the effect on some Diptera of scarcity of nectar sources in parts of the New Forest was cited in my review; I noted that there was no mention in the book of the importance of nectar sources for saproxylic Coleoptera, but suggested that this might be significant for them too. Keith Alexander, who contributed the chapter on this subject, has suggested that their importance has been overstated, while recognising that it is important for those species that do require flowers. A recent assessment he has carried out of which saproxylic beetles have been found at blossom indicates that only 90 of the about 700 saproxylic beetle species found in Britain are recorded as visiting flowers, some of them only occasionally and thus not considered to be dependent on blossoms. Consequently nectar sources may be lacking at some sites significant for saproxylic beetles.

A similar estimate for saproxylic Diptera would be difficult to achieve in view of the paucity of specific flower visiting records for some families. It is well known that syrphids, hybotids and many calyptrates visit flowers and this will apply to most of the saproxylic species in these groups. Syrphids may travel some distance away from development sites to visit flowers, but this may be less so of other families. It isn't clear to what extent flowers are important to saproxylic acalyptrates, where some of the families involved (e.g. Clusiidae) are not known to be flower visitors. There aren't many records of lonchaeids at flowers but the RES handbook mentions females of some species at lime blossom, and there may be under-recording of this behaviour for them and for some other families. With Nematocera, which include a large proportion of saproxylic Diptera, it is more difficult to assess importance of flowers. While there are few diurnal records of craneflies and fungus gnats at flowers, it is suspected that feeding at night may be more common. Availability of flowers is, of course, important to many other Diptera species inhabiting the diverse habitats of the New Forest, apart from the saproxylics.

Peter Chandler

Stubbs & Falk British Soldierflies Second Edition

Due soon, look out for it at AES & BENHS exhibitions and at Dipterists Day. More details in Soldierfly newsletter, keep an eye on their website too.

via Roger Hawkins

Equipment

Travelling light

The following item was discovered at an angling/shooting shop in Wroxham and others seen at a woodworking show in Newark. Not the sort of places you'd expect microscopists to gather although entomologists do trawl anglers now and then for net ideas.

Cluson Engineering: Clulite (A63) Dual Gun Mounting Kit (25 & 30mm)

The title gives nothing away. This is a gadget which provides a clamp for your high output LED torch (e.g. Refracta from Maplins) affixed to a ball and socket joint, the assembly can be then clamped to main vertical shaft of your microscope. It's a shooting accessory so it's actually designed to fit a gun sight.

A combination of this, a powerful Refracta torch and a supply of AA batteries will give you adequate microscope lighting for field work when mains electricity isn't available, the whole assembly can be held in the palm of your hand. Useful too for augmenting lighting for photography. The support clamp fits a range of diameters from tripod legs all the way up to the 30mm column of my microscope. Very robustly made and priced. See http://clulite.cluson.co.uk/gun-light-mounts/548-a63-dual-gun-mounting-kit-25-30mm.html.

The range of high output LED devices is increasing too, for example Clulite supply high power torches and Craftlights.co.uk have a range of illuminators with gooseneck arms.

Darwyn Sumner

Meetings

Reports 2014

Spring workshop: Three families, two birthdays and cake.

This year's spring workshop covered three very different families, the Bibionidae, Sepsidae and Scathophagidae, under the tutelage of Richard Lane, Steve Crellin and Stuart Ball. Renovations to the old house at Preston Montford meant we used the Darwin classroom this year, putting us close to the tea, coffee and cake supplies, and in the evening the bar. The provision of "real coffee" was a welcome first for addicts like myself, and the cake supply was to the usual high FSC standard.

Duncan Sivell and Olga Retka (Judy Webb)

Stuart Ball started the workshop with the Scathophagidae. Stuart's presentation made good use of his macrophotography skills and covered the wide range of species ecology found in this family (it's not all about dung!). The latest edition of Stuart's key (Version 4.1) and a booklet of provisional distribution maps were provided and the first "birthday" of the weekend, the official launch of the Scathophagidae Recording Scheme, was announced. Stuart has already collated a good number of Scathophagid records in recent years and I am sure we will be hearing more from this scheme in the near future.

Richard Lane talks about Bibionids (Judy Webb)

Having tackled the largest of the three families first, we then moved on to the Bibionidae; a very distinctive family also noted for its sexual dimorphism. Richard Lane, author of the handbook to British species, told us about the importance of adults as pollinators and of larvae in soil turnover. Richard also discussed swarming, an activity well associated with Bibionids, with some video of male flight behaviour (technically they aggregate rather than swarm, but the latter term is typically used in a broad sense). A draft key by Alan Stubbs, which tackles males and females separately, was made available to supplement the existing handbook.

Last but not least Steve Crellin, who manages the national recording scheme, covered the Sepsidae. Steve pointed out that the wing-waving behaviour we often see in the field is largely unexplained; certainly it does not appear to be tied with courtship. The spines on the male forelegs that are so useful for species identification fit into the female wing bases and are, in effect, designed simply for "hanging on". Is this the height of Sepsid romance? In addition to his Scathophagid key Stuart Ball also produced a new Sepsid key for the workshop, complete with species distribution maps. Steve Crellin drew our attention to another very useful resource; the Sepsidnet website (http://sepsidnet-rmbr.nus.edu.sg/aboutus.html). This website has many photographs and line illustrations of Sepsids with the facility to compare multiple species against each other at the same time.

Steve Crellin assists John Ismay (Judy Webb)

A good amount of reference material was made available to attendees and it is hoped this workshop will generate a flurry of records for the three families concerned; particularly the Sepsidae and Scathophagidae as both have recording schemes in place. Although there is no recording scheme for the Bibionidae many species are on the wing early in the season. This is a nice group to add to a spring repertoire to ease yourself into the collecting season, and probably a good group to study if you are interested in phenological changes between years.

What of the second birthday? This belonged to Richard Underwood, who for many years has been a stalwart in bringing reference material from the Liverpool Museum collection to support the spring workshops. The fact that Richard was happy to spend his 76th birthday at the workshop is a mark of his dedication in supporting this event. More cake was provided and I trust Richard had additional celebrations when he got home.

Duncan Sivell

News from the Devon Fly Group

In the last edition of the Bulletin we announced the formation of a Devon Fly Group, outlining our aspirations and aims. In line with these we held a workshop in February on the identification of flies to family level which was well attended and have a programme of field meetings for the year, one a month between April and October: four of these have been held as we write and are reported here.

At each field meeting we aim to target a species of conservation concern within the county (at scenic places in good company). For our first meeting, in April, we hoped to find the dotted bee fly *Bombylius discolor* which is known from the far east of the county. We chose some superb patches of limestone grassland within the Axmouth to Lyme Regis Undercliffs NNR for our search, courtesy of Natural England. Although we had to content ourselves with views of the dark-edged bee fly *Bombylius major*, a common species, we were rewarded with fine scenery and a good diversity of bees and wasps, including species that inhabit snail shells.

Eristalis cryptarum on bogbean, Challacombe, 24 May 2014, Robert Wolton

Our May meeting targeted the very rare bog hoverfly *Eristalis cryptarum*, a Section 41 species now known only from Dartmoor. The weather was cold with occasional showers, and we were not hopeful, especially since it is known to be an elusive and secretive fly. However, we were in luck and found a male and female conveniently sitting on bogbean *Menyanthes trifoliata* flowers, at a known site. It was so cold, they were reluctant to fly and good photos were taken, including a short and quaint video of one sitting on Andrew Cunningham's finger – search for YouTube – Cunningham - cryptarum if you want to see it! The only other large hoverfly we saw was a single *Sericomyia lappona*, but a queen mountain (or bilberry) bumblebee *Bombus monticola* was a delight to see. Larvae and pupae of black flies Simulidae on strands of vegetation in fast flowing small streams added further interest.

In June we looked for the nationally scarce hoverfly *Eumerus sabulonum*, a coastal species which is something of a north Devon speciality associated with sheep's-bit *Jasione montana*. It was a glorious day sunny with little wind, ideal conditions for the search. At the first site we visited, near Welcombe on the Hartland coast, we found hundreds on a south-facing slope full of the food plant – more on this in the Hoverfly Newsletter – and were able to watch them closely. We found more at a second site, nearer Hartland Point. Other good finds on the day were the striking red-rimmed black leaf beetle *Chrysolina sanguinolenta*, a nationally scarce species, and thrift clearwing *Synanspecia muscaeformis* which has seldom been recorded from the north Devon coast.

Devon Fly Group field meeting, Welcombe Mouth, 21 June 2014, Martin Drake

July took us to Exmoor and the valley of the River Heddon, courtesy of the National Trust, our goal being to re-find the silver-banded snipefly *Chrysopilus erythrophthalmus* (what a mouthful!). One of us (Martin) had discovered this rarity on the river in 1996 but it had not been seen since. Once more we were in luck, finding two females on small patches of shaded exposed sediments (a mosaic of loose rocks and coarse sand) in the river channel in this deep wooded valley. *Lonchoptera meijerei* was another good find, although not quite so rare. Species-rich grassland at Heddon's Mouth, where the river meets the sea, provided further good species including the strange sarcophagid *Miltogramma germari* and a couple of nationally scarce weevils.

Chrysopilus erythrophthalmus 3, River Heddon, Exmoor, 19 July 2014, Rob Wolton

Here's hoping we are as lucky with the weather, and in finding our target species, at future meetings…

If you would like to join the Devon Fly Group, you would be very welcome – all you have to do is join our email network - please contact Andrew Cunningham at ajc321@hotmail.com.

Rob Wolton and Martin Drake

Summer 2014 Field Meeting: Bangor 5-12 July 2014

One could quite envy students at Bangor University. Ten miles inland there's Snowdon at 1000m high; 10 miles the other way are expanses of saltmarsh and dune, beautiful fens and soft-rock cliffs. I hope they appreciate it because the 18 of us billeted at the university campus certainly did. On the domestic front, university students are definitely pampered as the rooms were comfortable and the food abundant. The lab was below the sleeping quarters, the cafeteria just across a small green, and the pub 10 minutes down the road. The only justified complaint was being woken in the small hours by herring gulls yattering just outside the windows. Attendees were drawn from the usual dipterist stalwarts, joined by Jose Câmara who is Adrian Plant's Brazilian PhD student collecting aquatic empids for her study, Mike Wilson from Cardiff Museum in search of hoppers using his suction sampler, Don McNeil looking for insect-associated Laboulbeniales fungi, and of course Andrew Halstead with sawflies and honey in mind.

The lie of the land was explained by Mike Howe on the first evening. A plethora of habitats was the main problem – where to go first? Bangor is a small town and easy to escape from by car. The going is easy until you hit the minor roads where the solidity of stone walls either side make sure you drive slowly but we still covered a fair area in the week. Anglesey with its predictably fine weather usually won over the often cloudy Snowdonia and more distant Lleyn Peninsula.

Coastal habitats were one of the biggest draws. Anglesey is a rather flat island despite looming Snowdonia a few miles away, but its dunes and saltmarshes are rich entomological terrain. Newborough Warren is the best known but Aberffraw, Malltraeth Sands and Red Wharf Bay were equally productive. Among the flies engendering excitement on the dunes were *Nephrotoma quadristriata* which is a rare specialist of Britain's west coast dunes, and the dolichopodid *Hercostomus gracilis* which was frequent at Aberffraw dune slacks. *Sphaerophoria ruepellii* at Newborough Warren's saltmarsh was a good find by Rob Wolton, being the first for at least 30 years in Wales apart from a few records on the south coast. Rob also found a small and localised population of the cranefly *Dicranomyia melleicauda* at the top of saltmarsh at Red Wharf Bay, extending the known distribution to the north of Wales. While no *Nemotelus* is uncommon, all four species were recorded during the meeting, and there were huge numbers of *N. notatus* at Malltraeth saltmarsh.

Nemotelus sp. (Nigel Jones)

Soft-rock cliffs are one of Wales's specialities as it has about 100km of them. Several parties visited the ostentatiously named Hell's Mouth at the far end of Lleyn. Last winter's storms had snatched the front of this 3miles sweep of clayey cliff, leaving rather small vegetated seepages at either end. So bad weather and the advanced season left rather little of interest here apart from the occasional *Oxycera pygmaea*, which was also found at cliffs on Fedw Fawr on Anglesey. At a reserve at Menai Straits, Alan Stubbs found *Orimarga virgo*, which confirmed the continued existence of the isolated population on this section of the north Welsh coast.

Base-rich fens dotted over Anglesey are one of Wales's most coveted habitats. These were a mixed bunch of sites, with some like Cors Erddreiniog and Cors Bodeilio having superb mosaics of fen vegetation and seepages, but others being rather dry and dominated by impenetrable reed and saw-sedge. *Stratiomys chamaeleon* was the star of the fens, seen and photographed by several of the party at Cors Erddreiniog, Cors Goch and Cors Bodeilio where Nigel Jones and Steve Crellin counted at least ten on roadside hogweed. These fens support one of only three populations of *S. chamaeleon* in Britain so it was a rare sight, even for dipterists.

Malcolm, Rob and Andrew near the site where we found *S. chamaeleon* (Darwyn Sumner)

The craneflies *Dicranomyia ventralis*, *Erioptera nielseni* and *Molophilus pleuralis* were found on several fens, the first being apparently new to the island. Nigel found *Platycheirus perpallidus* here as well as at a more acid upland mire inland. The little *Neoascia geniculata* was found at several fens where it seems to be frequent in contrast to its scarcity in the rest of north Wales; the same is true for *Lejogaster tarsata* found at Valley Wetlands reserve. The small empid *Rhamphomyia lamellata* was a good record by Adrian at Cors Goch, the first for Wales away from the southern strip. Straying into non-Diptera, Stuart Ball obtained good photographs of three uncommon dragonflies in these mires: *Ceriagrion tenellum*, *Orthetrum coerulescens* and *Ishnura pumilio*. Stuart also managed a good photo of the *Scathophaga scybalaria* which occurred frequently.

Inland, the attractions were woods, streams and bogs. In the mire at Cors Bodgynydd, *Atylotus fulvus* was found, which helped to confirm Wales as one of the places to find this uncommon bog horsefly, and Steve found the very spotty sciomyzid *Dictya umbrarum* from a small boggy pool here. Andrew identified the uncommon sawfly *Tenthredo moniliata* taken on the Lleyn Pen-

insular; its larvae feed on bog-bean, which was a commonly seen plant on our travels. Several members found *Ibisia marginata* at stream margins and, although this is entirely expected, its extreme western distribution puts it out of reach of most English dipterists on their home patch. Among the many craneflies recorded by John Kramer was *Rhabdomastix edwardsi*, a species of river gravels but with surprisingly few records in north Wales, and the second Welsh record of the rare honorary cranefly *Cladoneura hirtipenne* (actually a trichocerid) near Capel Curig.

I don't think anyone ventured particularly high into the hills, so there were no montane records but a number of upland species were found. These included *Platycheirus ramsarensis* near Cwm Idwal and the cranefly *Dicranomyia distendens* which is well known from Snowdonia but has a very restricted distribution further south in Britain.

We have to thank Andrew for running the annual Honey-pot Challenge for the most sawflies recorded. This year Rob easily won the prize on points but Richard Underwood had the most spectacular find – the huge wood-wasp *Urocerus gigas* from Llanfairpwllgwyngwll whose size is just enough to leave room for the locality data label. Two more uncommon species were *Abia candens* and *A. fasciata*, so there was some sawfly interest even if numbers were low.

Stratiomys chamaeleon [Darwyn Sumner]

Totals for two groups were hardly spectacular – Alan and John had only 84 craneflies by the end of the week (but still counting), which is low for such varied and beautiful habitat, and I had 71 dolichopodids (and still counting too). The craneflies did include some interesting records, such as *Tipula yerburyi*, *T. truncta*, *T. pierrei*, the spectacular *Ctenophora pectinicornis*, the pretty-winged *Eloeophila apicata*, *Dicranomyia aquosa* and *Limonia dilutior*. Andrew reckoned that his sawfly list, despite the honey-pot enticement, was probably the lowest ever at 47 species. Summer has been excellent and June rather warmer than average, so it is probable that many species had come and gone earlier than expected. But there's lots in everyone's collections still to be identified, so let's have those records!

Several factors make our field meetings work so well. Most people know the ropes by now, organising themselves into little parties each day with occasional shifts in membership of each group. Communal meals and measured evening boozing lead to considerable interaction, and non-dipterists are always welcomed to the party. But we mustn't forget the considerable effort made by Roger Morris starting well before anyone thinks of signing up, through the week itself, to well after the event, mopping up the finances and collating records.

Martin Drake

Forthcoming

2014

Autumn Field Meeting 2014
Sherwood Forest & Nottinghamshire
11-18 October 2014

We will be based in two travel lodges for this meeting, with the changeover on Wednesday 15 October. Interested members should contact Roger Morris for details.

Roger Morris (7 Vine Street, Stamford, Lincolnshire, email: roger.morris@dsl.pipex.com)

ANNUAL MEETING

Tullie House Museum & Art Gallery, Carlisle
Saturday 22nd & Sunday 23rd November 2014

Dipterists Day 2014

Tullie House
Museum and Art Gallery
Castle Street
Carlisle CA3 8TP

Accommodation in Carlisle

A range of accommodation is available in the city, check the Discover Carlisle website (http://www.discovercarlisle.co.uk) or other websites such as Booking.com (http://www.booking.com/index.en-gb.html). As always it's advisable to book early for a better range of options.

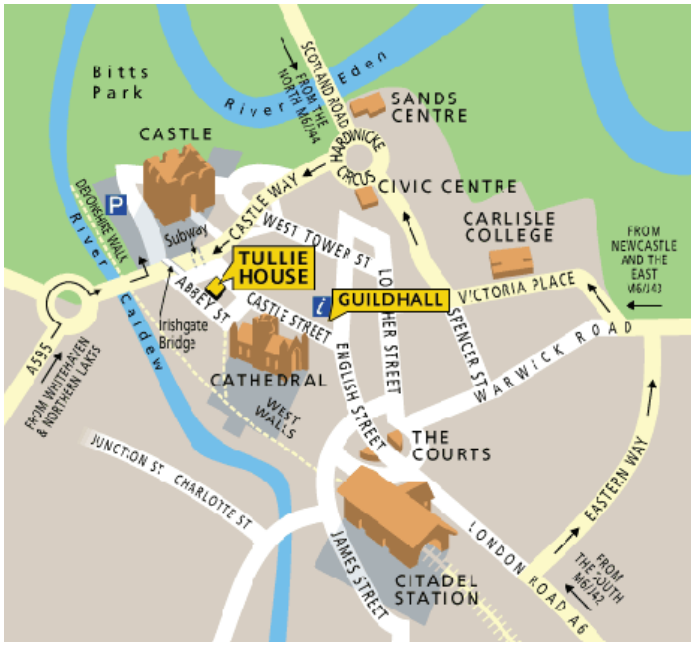
Travelling to Tullie House

Carlisle is readily accessible by train, within easy reach of Manchester, Newcastle, Edinburgh, Glasgow, and connecting routes beyond. The museum itself is a 10 to 15 minute walk from the train station; turn left out of the station and walk between the two "castle towers" onto English Street. Carry straight on over the next traffic junction where the street is pedestrianized and soon opens out into the Market Cross square. Keep to the left side of the square and continue along Castle Street, passing the Cathedral on your left. Tullie House Museum is near the end of this street on the left hand side.

If you are travelling by car you should exit the M6 at either Junction 44 (to the north of Carlisle) or Junction 43 (to the east). More detailed directions from the M6 to Tullie House can be found on the museum's website (http://www.tulliehouse.co.uk/).

Parking

There are a number of car parks close to the museum, the Devonshire Walk car park beside Carlisle Castle (see map) is probably the most convenient for those arriving from outside of Carlisle.



New members and visiting Dipterists welcome

Pemberley Books will be present on Saturday

Cumbrian Diptera

As part of the exhibits we intend to identify the good Diptera sites in Cumbria. Dipterist Forum members who took part in the 2013 Lancaster field meeting are encouraged to submit their records before November so that we have as much data as possible for Cumbrian sites.

Saturday 22 November

10:00 "Tullie House open to the public Assemble in the Function Room and set out exhibits"

10:30 Introduction and Welcome to Tullie House

Stephen Hewitt

10:40 Cumbrian Dipterology and the Collections at Tullie House Museum

Stephen Hewitt

11:00 An hour in the life a bee-fly

Martin Drake

11:20 Tea & coffee

11:40 Knotty Gnats: Exploring Britain's Trichoceridae

Julian Small

12:00 Annual General Meeting

13:00 "Lunch
There is a café next to the Function Room and the museum is close to the city centre, or bring a packed lunch."

14:00 Judging of exhibits prize giving

14:10 The fly and other life of a Devon hedge
Rob Wolton

14:40 Window gnats (Anisopodidae) on the world stage - putting ours into context
Geoff Hancock

15:10 Tea & coffee

15:30 The role of Phlebotomine sand flies as vectors of disease
Prof. Paul Bates

16:00 Further discussion and mingling

16:30 Close of session - take exhibits down

17:00 Vacate the Function Room and move to a local café or pub

18:30 Dipterists Supper
An evening meal will be booked at a local restaurant, please contact Duncan Sivell (d.sivell@nhm.ac.uk) in advance of the meeting if you wish to attend the Dipterists Supper

Sunday 23 November

10:00 Tullie House open to Dipterists Forum

10:30 Access to Diptera collections

11:00 From outdoors to online - using iRecord for the Soldierflies and Allies Recording Scheme
Martin Harvey

13:00 Lunch

16:00 Wind down and vacate collection area

17:00 Tullie House closes to the public

Annual General Meeting

Saturday 22 November 2014

The Chairman will open the AGM at 12.00 pm.

Agenda

1 Apologies
2 Approval of the Minutes of the last AGM and matters arising
(See Spring 2014 Bulletin 77, pp 29-31, for the Minutes of the 2013 AGM)
3 Secretary's Report
4 Treasurer's Report
5 Dipterists Digest Editor's Report
6 Amendment to Constitution to accommodate local Diptera groups
7 A.O.B.
8 Chairman's Vote of Thanks to retiring members
9 Election of Officers: See details below

The Chairman is elected biennially. The Secretary, Treasurer and other Elected Officers with specific responsibilities (detailed below) require annual election. The constitution (7c) currently requires nominations 30 days in advance of the AGM. Ordinary elected committee members serve for two years.

The Officers and General Committee proposed for re-election or election this year, 2014, are as follows:

Office	**Officer**
Chair	Howard Bentley (Proposed)
Vice Chair	Martin Drake (Proposed)
Secretary	Amanda Morgan (Proposed)
Treasurer	Hannah Cornish (Proposed)
Membership Secretary	John Showers
Field Meetings Secretary	Vacancy
Indoor Meetings Secretary	Duncan Sivell
Bulletin Editor	Darwyn Sumner
Assistant Editor	Judy Webb
Publicity Officer	Erica McAlister
Website Manager	Stuart Ball
Conservation Officer	Robert Wolton
Committee Members proposed	Stuart Ball (Proposed)
for election or re-election 2013	Nathan Medd (Proposed)
Members Elected 2013	Chris Raper, Malcolm Smart, Mark Pajak, Peter Boardman, Vicky Burton

Proposed amendment to the Dipterists Forum constitution

This arises as a consequence of Dipterists Forum having decided to obtain its own insurance covering accidents to members and guests at field and indoor meetings, in addition to third parties. Local fly groups may benefit from Dipterists Forum's insurance, and this requires the constitution to be amended to allow such affiliated groups. The following wording is proposed

Local Fly or Diptera Groups may become affiliated to Dipterists Forum. They will agree to abide by the Dipterists Forum Local Group Constitution. Such affiliated local groups may benefit from any appropriate Dipterists Forum's insurance policy on payment of the relevant supplement.

'3a' becomes new numbering for the existing wording on affiliation to BENHS.

Martin Drake, Chairman

Chairman's thanks to hosts and formal closing of the Annual General Meeting

2015

Diptera Workshops 2015

Acalypterate Flies

Preston Montford Field Studies Centre

20 - 22 February 2015

Led by John Ismay, Barbara Ismay & Alan Stubbs

The Acalypterates form a large part of our Diptera fauna, comprising almost a quarter of the species and nearly half the families found in Britain. Although these flies are widespread and ever-present, Acalypterates tend to be under-recorded. A few families of medium to large sized species (e.g. Tephritidae, Sciomyzidae, Conopidae) are relatively well-studied, but many Acalypterates are small and indistinct and often over-looked. This workshop will first focus on identifying all Acalypterates to family level and will then look at a selection of smaller, more obscure Acalypterate families in more detail, identifying them to species level.

A revised draft key to Acalypterate families will be prepared for the workshop and some time will be spent examining morphological features known to cause confusion. The "costal break" in the leading wing vein is an important character that is not always obvious when it is present. Interpreting this character correctly is critical for determining which family an Acalypterate fly belongs to. Chaetotaxy (the location and pattern of bristles) will also be reviewed as these are important features used to tell families and species apart.

After family level identification has been covered the workshop will focus on 15 Acalypterate families in particular, comprising a total of 69 species. These families have been chosen because they do not have an existing recording scheme or study group nor have been covered in recent Diptera workshops. Revised draft keys will be presented. Many of these families are associated with particular habitats. The Canacidae (11 species), Coelopidae (3) and Heterocheilidae (1) are all found on the coast and the Stenomiciridae (2) occur in fens. Six families belong in woodland; the Acartophthalmidae (2), Dryomyzidae (3), Campichoetidae (2), Strongylophthalmyiidae (1), Aulacigastridae (1) and Periscelididae (3). The latter two families are associated with sap runs. The Asteiiidae (8) are found in both woodland and grassland habitats and two of the larger families covered in this workshop, the Piophilidae (14) and Chyromyidae (11), have varied habitat preferences although Piophilids do have an association with carrion and Chyromyids with birds' nests. The last two families to be covered also have animal connections. The Camillidae (5) are found in and around mammal burrows while the Braulidae (2) live in bee hives. The Braulids are particularly distinctive as they lack wings!

In addition to the 15 families that will be looked at in detail a further seven Acalypterate families are represented by single species in Britain. While these families will not be specifically targeted in the second half of the workshop they will, in effect, have been taken to species level using the revised family key in the first half of the workshop.

As always catching your fly is a basic pre-requisite to studying them! Suggestions on when and where to find different Acalypterates will be given as part of an ecological overview of the group. This will look at which habitats to target and which techniques are best suited for collecting. The Acalyptrates include families of great economic importance (Tephritidae and Agromyzidae) and some beneficial families, e.g. Sciomyzidae. They comprise a large element of Dipteran biodiversity and some are only known from so called 'good' sites, so can be useful indicators of habitat quality.

This workshop, organised and run by Dipterists Forum, is aimed at those who have some experience with flies. It has been arranged by popular request and is expected to be quite heavily subscribed. Places will be limited by the size of the venue so if you are interested in attending, please book early to ensure that you get a place. Bookings can be made through the FSC webpages in the autumn (http://www.field-studies-council.org/).

Field meetings 2015

Spring Field Meeting

Norfolk Coast

15-17 May 2015

This meeting is intended to allow us to explore parts of the Norfolk coast and The Broads. It will be based around guest houses in Cromer. Members wishing to participate will be expected to book their own accommodation but if possible we will try to organise ourselves in close proximity to one another.

If interested, please let Roger Morris know: roger.morris@dsl.pipex.com

Summer Field Meeting

Nottingham

11 July – 18 July 2015 - £360

I have booked accommodation at Nottingham University. The booking is for 20 places, but I expect we can expand the numbers if there is sufficient interest. Early booking is therefore recommended.

Nottingham provides an excellent centre for looking at a largely unexplored part of the country and within striking distance of the Derbyshire dales and Sherwood Forest.

Deposits (£50) should be sent to Roger Morris, 7 Vine Street, Stamford, Lincolnshire PE9 1QR

Autumn Field Meeting 2015

New Forest and Isle of Purbeck

10-17 October 2015

This will be a two-centre trip, based partly in Bournemouth and partly in Swanage. It is intended to use this opportunity to make a serious effort to record the New Forest, which has not been intensively visited for many years. The Swanage base will allow us to explore the Isle of Purbeck - which potentially holds many interesting records.

Events Calendar 2014-15

Dipterists Forum & selected meetings

04 October 2014, AES Annual Exhibition and Trade Fair, Kempton Park, London Sunbury-on-Thames, TW16 5AQ, UK. DF will have a publicity stand and publications for sale. See www.amentsoc.org

11-18 October 2014, DF Autumn Field Meeting. Sherwood Forest and Nottinghamshire. We will be based in two travel lodges for this meeting, with the changeover on Wednesday 15 October. Contact Roger Morris for details (7 Vine Street, Stamford, Lincolnshire, email: roger.morris@dsl.pipex.com)

31 October 2014, 10:00 - 17:00, AES Conservation Conference, Themes: Natural England's Mosaic Approach for managing habitats for species, and the increasingly popular use of Citizen Science as a means of recording wildlife and aiding conservation. Amongst other talks, Stephen Miles will talk about bare ground on heathland and other sites for flies, bees and wasps. Joint event by the AES, British Ecological Society's Conservation Special Interest Group and the BES Citizen Science SIG £20 for AES and BES members and £30 for non-members. Charles Darwin House, 12 Roger Street, London, WC1N 2JU, UK. Contact John Millar email: conference2014@amentsoc.org

1 November 2014, Worcestershire Entomology Day. Title 'Insects, people and place'. Keynote speaker Peter Marren. This event brings together amateur naturalists and professional ecologists and attracts participants from across the midlands. Rock Village Hall, N Worcestershire. Contact Rosemary Winnall, email: rosemary@wyreforest.net

8 November 2014, BENHS Annual Exhibition and Dinner. Conway Hall, Red Lion Square, Holborn, London

21 November 2014, 14th NBN Annual Conference "Climate, Collaboration and Collection - informing the new conservation agenda" The Royal Society. https://royalsociety.org/

22-23 November 2014, Dipterists Day and AGM, Tullie House Museum, Carlisle. Details within this issue of Bulletin.

24-25 January 2015, 10am-5pm daily 'Introduction to Fly families (Diptera)' – John & Barbara Ismay and Oxford University Museum of Natural History, South Parks Road, Oxford (www.oum.ox.ac.uk). Please contact John and Barbara Ismay, 67 Giffard Way, Long Crendon, Aylesbury, Bucks, HP18 9DN (E-mail: schultmay@insectsrus.co.uk) in advance to book your place at the workshop. Places are limited to 14 participants, so early booking recommended.

31 January 2015, Tachinidae identification workshop – tutors Matt Smith and Chris Raper. An introduction to sampling and identifying Tachinidae, with new draft keys for a revised RES Handbook available for testing and the chance to have your specimens checked and verified by the organisers of the National Recording Scheme. The Pelham-Clinton Building, Dinton Pastures Country Park, Davis Street, Hurst, Reading RG10 0TH. For more information on Tachinidae and the recording scheme see: http://tachinidae.org.uk/

20-22 February 2015, DF Advanced Workshop on Acalypterate Flies. Tutors John & Barbara Ismay and Alan Stubbs. Preston Montford Field Studies Centre, Shrewsbury. Details posted in this issue and will be on FSC website: http://www.field-studies-council.org/prestonmontford/

14- 15 March 2015, 'Introduction to Fly families (Diptera)' – tutors John & Barbara Ismay The Pelham-Clinton Building, Dinton Pastures Country Park, Davis Street, Hurst, Reading RG10 0TH. Please contact Dr. Mike Edwards, BENHS Indoor Meetings Secretary, 53 Great Cranford Street, Poundbury, Dorchester, Dorset DT1 3SQ (E-mail: m.edwards787@btinternet.com) in advance to book your place at a workshop.

15-17 May 2015, DF Spring Field Meeting to Norfolk Coast. Based around guest houses in Cromer. Members wishing to participate will be expected to book their own accommodation but if possible we will try to organise ourselves in close proximity to one another. Contact Roger Morris for details (7 Vine Street, Stamford, Lincolnshire, email: roger.morris@dsl.pipex.com)

4 - 8 June 2015. 8th Int. Symposium on Syrphidae. Monschau (Germany) Contact Ximo Mengual Phone: 0049 (0)228 9122 292 E-mail: syrphidae8@gmail.com . http://zfmk.de/web/Forschung/Kongresse/2015/201506_ISS8/index.en.html

11-18 July 2015, DF Summer Field Meeting to Nottingham area. Derbyshire Dales and Sherwood Forest within reach. Accommodation in Nottingham University. 20 places booked, deposit of £50 required to secure a place. Contact Roger Morris for details (7 Vine Street, Stamford, Lincolnshire, email: roger.morris@dsl.pipex.com)

2-4 September 2015, RES Ento ,15 **"Insect Ecosystem Services"** Annual National Science Meeting and International Symposium. **Venue: Trinity College Dublin**

10-11 October 2015, DF Autumn Field Meeting to New Forest and Isle of Purbeck. A two-centre trip, based partly in Bournemouth and partly in Swanage. It is intended to use this opportunity to make a serious effort to record the New Forest, which has not been intensively visited for many years. The Swanage base allows access to Isle of Purbeck. Contact Roger Morris for details (7 Vine Street, Stamford, Lincolnshire, email: roger.morris@dsl.pipex.com)

***Throughout the Year*:**

BENHS Dinton Pastures Open Days in the Pelham-Clinton Building, Hurst, Reading. Open 10:30-16:00 on second and fourth Sunday in each month except April to September when only on the second Sunday of each month (except for August when there are no Open Days). We encourage you to bring along your pinned flies and use the Diptera Collections and library for identification. Other Dipterists are usually present meaning good chat and assistance with identifications may be possible. The grid reference for Dinton Pastures is SU 784718, turn left off the B3030 driving North from Winnersh. The site is about 15 minutes walk from Winnersh station, which has trains running on a half-hourly service from Reading and Waterloo. See: www.benhs.org.uk

The Northants and Peterborough Diptera Group hold meetings every weekend from end of April until sometime in September/October. Contact John Showers on: showersjohn@gmail.com

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

BENHS WORKSHOP

Saturday 14 March and Sunday 15 March 2015 '**Introduction to Fly families (Diptera)'** – John Ismay and Barbara Ismay (both Long Crendon). This workshop is held jointly with Dipterists' Forum in The Pelham-Clinton Building, Dinton Pastures Country Park, Davis Street, Hurst, Reading RG10 0TH. The True Flies (Diptera) is a large and diverse order, with some families that are relatively easy to identify and others that need more experience. They are an important part of our ecosystem, provide many ecosystem services and have fascinating behaviour. This workshop introduces the order to beginners and we will place emphasis on the families for which Recording Schemes exist. Dipterists' Forum has produced a draft key, which BRC will print for each participant. The workshop includes tutorials throughout the two days, mostly on identification, but also on habitat preferences. Collection techniques and basic advice on how to store specimens will be covered. At the end of the two days you will be able to identify many flies to family level and we hope you will be curious to learn more. Further information on flies can be found under www.dipteristsforum.org.uk and further information on the BENHS and their workshops under www.benhs.org.uk .

Please contact Dr. Mike Edwards, BENHS Indoor Meetings Secretary, 53 Great Cranford Street, Poundbury, Dorchester, Dorset DT1 3SQ (E-mail: m.edwards787@btinternet.com) in advance to book your place at a workshop.

Dipterists' Forum and Oxford University Museum of Natural History Workshop

Saturday 24 January and Sunday 25 January 2015 '**Introduction to Fly families (Diptera)**' – John Ismay and Barbara Ismay (both Long Crendon). This workshop is held jointly with Dipterists' Forum and Oxford University Museum of Natural History. The True Flies (Diptera) is a large and diverse order, with some families that are relatively easy to identify and others that need more experience. They are an important part of our ecosystem, provide many ecosystem services and have fascinating behaviour. This workshop introduces the order to beginners and we will place emphasis on the families for which Recording Schemes exist. Dipterists' Forum has produced a draft key, which BRC will print for each participant, while the Oxford University Museum of Natural History kindly hosts the workshop for free. The workshop includes tutorials throughout the two days, mostly on identification, but also on habitat preferences. Collection techniques and basic advice on how to store specimens will be covered. At the end of the two days you will be able to identify many flies to family level and we hope you will be curious to learn more. Further information on flies can be found under www.dipteristsforum.org.uk, further information on the Oxford University Museum of Natural History can be found under www.oum.ox.ac.uk . There will be a small charge to cover tea / coffee and some biscuits.

Please contact John and Barbara Ismay, 67 Giffard Way, Long Crendon, Aylesbury, Bucks, HP18 9DN (E-mail: schultmay@insectsrus.co.uk) in advance to book your place at the workshop.

Please note that places are limited to 14 participants, so please book early to avoid disappointment. Both workshops run from 10am to 5pm on both days.

Field Meetings Dipterists Forum

Booking Form - for rates see Bulletin

Meeting location and dates			
Name			
Address			
Telephone number			
Mobile phone number			
email address			
Intended stay (please indicate days and dates)			
Dietary requirements	Omnivore		Please tick relevant box
	Vegetarian		
	Vegan		
Allergies (food)			
Deposit			
Signature			Date

Please Note: We will endeavour to accommodate for part-weeks but this is dependent upon available accommodation and the policy of the host venue

Payment details:
Cheques made payable to Dipterists Forum

Deposits
Deposits will only be returnable if cancellation occurs before the published cut-off date for reduced rates.

Please send your booking form and cheques to:
Roger Morris
7 Vine Street, Stamford, Lincolnshire PE9 1QE
Email: roger.morris@dslpipex.com

And now ...

Pooting Fairies

If only I had known in advance. En route between A and B, where should one stop for a flap of the net? Yes, the top a mountain pass must be suitably different from Peterborough. I even thought I knew the name, until being perplexed that neither of the two glens either side bore the expected name, and the famous hairpin bends had miraculously disappeared: my maps are pretty ancient.

Back home, deploying my infamous computer skills, I managed to find it on the web. This informed me that Glen Shee is 'special because there is nowhere in the world quite like it'. One could say the same about the middle of Scunthorpe. Also that it is romantic and wild, as one surveys the extensive car parks (I cannot speak for Scunthorpe). Wildlife consists of a couple of birds, if one gets far enough from the ski lifts. But, I must not mock, for just above, the col car park the base-rich upland vegetation and accompanying flies were well worth the stop.

The aforesaid web pages also told me that the Gaelic name for Glen Shee is Gleann Shith, the Glen of the Fairies. Some folk would travel hundreds of miles just to have a data label like that. And had I known, I might even have tried pooting for fairies…. .. will dolis do?

Alan Stubbs

Contributing Bulletin items

Text

1. Articles submitted should be in the form of a word-processed file either on disk (3.5", CD or USB Flash), via E-mail which should have the phrase "DF Bulletin" in the Subject line **or placed in the appropriate Dropbox, details of which are emailed out by the editors to committee members (others please enquire)**. Email text alone will not be accepted.
2. Please submit in native format (http://en.wikipedia.org/wiki/Native_and_foreign_ format) and in "text-only" Rich Text Format (.rtf) and additionally send pictures in their original format. An accompanying print-out (or pdf) would also be useful.
3. Please note the width of the borders used in Dipterists Bulletin; for conformity with style would newsletter compilers please match this format. The document must be A4.
4. **Do not** use "all capitals", underlining, blank lines between paragraphs, carriage returns in the middle of a sentence or double spaces.
5. **Do not include hyperlinks in your document.** Since they serve no purpose in a printed document and the editor has to spend time taking them out again (the text is unformattable in DTP if it has a hyperlink attached), documents containing hyperlinks will be sent back to you with a request for you to remove them. There's a guide on how to remove Word's default hyperlink formatting at https://www.uwec.edu/help/Word07/hyperlinkfor.htm
6. Scientific names should be italicised throughout and emboldened only at the start of a paragraph.
7. Place names should have a grid reference.

Illustrations

8. Colour photographs are now used extensively in the Bulletin, they appear coloured only in the pdf or on the covers.
9. Please include all original illustrations with your articles. These **should** be suitably "cleaned up" (e.g. removal of partial boxes around distribution maps, removal of parts of adjacent figures from line illustrations) but please do not reduce their quality by resizing etc. .
10. Please indicate the subject of the picture so that a suitable caption may be included, in some cases it will be possible for the picture file's name to be changed to its caption (e.g. 049.jpg becomes Keepers Pond NN045678 12 Oct 2008.jpg). All group pictures should identify all the individuals portrayed.
11. **Powerpoint** files may be submitted, they are a useful means of showing your layout and pictures are easily extracted.
12. Pictures contained within Word files are of too low quality and cannot be extracted for use in the Bulletin.
13. Line artworks are also encouraged - especially cartoons
14. Colour pictures and illustrations will be printed in black and white (uncorrected) and so it would be wise to see what a B&W photocopy looks like first, although the print quality from Autumn 2009 onwards gave excellent B&W results.
15. A suitable colour photograph is sought for the front cover (and inside front cover) of every copy of the Bulletin, note that it must be an upright/portrait illustration and not an oblong/landscape one for the front cover.
16. Due to the short time-scales involved in production, the editors will not use any pictures where they consider there to be doubt concerning copyright. **Add your personal details to the metadata of the picture**, guidelines to this in Bulletin #76.

Tables

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

When to send (deadlines)

Spring bulletin

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

Autumn bulletin

20. Aims to be on your doorstep in mid September, contributions should therefore be made to the editor **by the end of July**. It will be printed then distributed in time for final notification of the Autumn field meeting (although you would be well advised to contact the Field Meetings organisers before this time and consult the DF website) and in time to provide details of the Annual Meeting. Please note that the date for contributions is now considerably earlier than for previous Bulletins

Where to send

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

Hoverfly Newsletter
Number 57
Autumn 2014
ISSN 1358-5029

This newsletter gives notice of next year's hoverfly symposium, the 8th in the series that began in Stuttgart in July 2001. Although we have always tried to include a review of previous Syrphidae symposia, I was unable to attend the 7th Symposium in Novosibirsk last year and have yet to find an attendee who is able to provide one. If any reader who went to Novosibirsk is willing to offer an appropriate review for inclusion in a newsletter it would be very welcome.

The recording scheme update below expresses concern that we may be witnessing a decline not only of hoverflies but perhaps of insects in general, something that has also been worrying the county invertebrate group to which I belong.
I spent two hours in late July at a promising site in the Cotswolds, in apparently ideal conditions, and insects there were very sparse (only four hoverfly species seen, mostly single examples); the only exception was in beds of lavender where bumblebees were abundant, but with the cuckoo species outnumbering the others by about four to one.

Roger Morris's piece on recording from photographs mentions the pea green halteres of some *Melanostoma* (the subject of a note in Hoverfly Newsletter No.28, August 1999). This is an example of a colour character that fades after death, as are the coral-red sternites of live female *Baccha elongata* (Bernard Verdcourt wrote of this in Hoverfly Newsletter No. 25, February 1998). The growth in photography of insects will probably increase awareness of such instances of colour features of hoverflies that have in the past gone unnoticed because they are no longer apparent in dead specimens. Probably very few of us, including myself, have seen *Didea alneti* in life; specimens in collections do not look much different in colour from the two more common species of the genus. But a search on the internet for photographs of live examples will reveal how much more colourful *D. alneti* is than many of us might have imagined.

Articles and illustrations (including colour images) for the next newsletter are always welcome. Copy for **Hoverfly Newsletter No. 58** (which is expected to be issued with the Spring 2015 Dipterists Forum Bulletin) should be sent to me: David Iliff, **Green Willows, Station Road, Woodmancote, Cheltenham, Glos, GL52 9HN, (telephone 01242 674398), email:davidiliff@talk21.com**, to reach me by 20 November 2014. The hoverfly illustrated at the top right of this page is a male *Brachyopa scutellaris*.

Hoverfly Recording Scheme Update Summer 2014 (& call for records)

Stuart Ball
255 Eastfield Road, Peterborough, PE1 4BH
Roger Morris
7 Vine Street, Stamford, Lincolnshire, PE9 1QE

Writing at the end of July 2014, one can only surmise how August will turn out, but if the last couple of months are anything to go by it may be a bit disappointing. For a greater part of this summer there has been a constant stream of comments of 'where are the hoverflies?' The Dipterists summer field meeting in North Wales was a real disappointment from this perspective: we saw precious few hoverflies and very little diversity. The one species of note was *Neoascia geniculata* on several of the Anglesey fens. It is quite likely to have been overlooked elsewhere, as we were finding just the odd example amongst a far bigger sample of *N. tenur*. *Lejogaster tarsata* and *Eristalinus aeneus* were also

noteworthy but despite a real attempt to sample saltmarshes we failed to see *Platycheirus immarginatus* and this genus was generally noteworthy by its absence.

The general observation has been that hoverflies have been poorly represented in field notes and that *Cheilosia* were particularly lacking. Is this really the case, or is there an explanation that we have yet to identify? There are localised reports of good numbers of *Cheilosia*, such as by Ian Andrews in East Yorkshire. Overall, however, it seems as if there has been a definite crash and that the only species doing reasonably well are some of the cosmopolitan ones such as *Episyrphus balteatus*. It is difficult to be sure quite what is happening but there are clearly grounds for concern that hoverflies, and as likely as not other insects, are suffering a serious decline. The implications for other wildlife are profound, as insects form a huge part of the food chain, so this may have serious knock-on effects, especially on birds.

Putting 2014 into context is not easy, as we have no standardised monitoring data for previous years. The database compiled by the scheme can be used in some ways to investigate trends, but without a clear baseline to detect change, there will always be uncertainty about what is really happening. The more data that come into the scheme, the more likely it is that answers can be provided, so we are, as always, keen to encourage more recording.

One of the products of that recording is the Species Status Review that we wrote for JNCC in 2006. In the intervening years it has been revised and updated on a regular basis but a combination of factors have delayed its publication. Last week (24-25 July) we finalised the text in response to a further round of comments from the country agencies and we believe that the review will now be published; indeed it should be out before this newsletter is circulated. Take a look on the HRS website for an announcement. It will be available in pdf form but we are also looking at the possibility of a short print run to meet the needs of those who want a bound copy.

Following up on publication of the review, we have been looking at the provisional atlas, which is currently out of print. We think a simple refresh is needed, especially as the database is close to the 800,000 record mark. We'd like to get a revised set of maps published by spring 2015, hopefully in time for a one-day hoverfly workshop/conference that we hope to run next April. We cannot say more at this stage but will make announcements of the meeting (probably in London) on the website and on the UK Hoverflies Facebook page. So, we would be extremely grateful for any backlog of records that readers might have. It is now three years since the last burst of records and hopefully there will be a fair few more!

When we wrote the last update, we mentioned that there was a relatively newly established UK Hoverflies Facebook page. At the time we could not have imagined quite how this project would take off. The response has been overwhelming and at the time of writing there are 849 members, with perhaps 50-60 people regularly posting records and photographs for identification. We owe a huge vote of thanks to Stephen Plummer who suggested the idea and very kindly set up the page. Stephen and Judy McKay manage the page and make new members welcome - it is a fantastic contribution that is greatly appreciated. What is also nice about this site is that it is developing a new community of recorders with emerging leaders. This is immensely heartening because in the course of the next couple of years we need to diversify the leadership of the Recording Scheme and to bring in new faces to help the scheme grow and to make sure that there is greater resilience against the inevitable passage of time. We (Stuart & Roger) remain committed to the scheme but as time passes we know that there is a need to start to pass on the baton so that the scheme does not get stuck in a two-man rut. So, in due course we will hopefully be announcing new team members.

Part of the purpose of expanding the team running the recording scheme is to think about ways in which we can develop initiatives to start answering some of the questions posed in the opening paragraphs of this report. We have a developing garden monitoring programme with several of the Facebook group maintaining records - these already look quite exciting because a continuous log of records will help to develop local and national contextual information. In addition, we are wondering about how we might look at usage of popular nectar plants such as hogweed, and also whether there is scope for a 'bioblitz'-like event or events. To do this we will need a team, as we are already pretty stretched.

Do keep a note of the proposed event in April 2015 - and visit the HRS website in the winter. Anybody with a possible interest in attending should drop Roger a line and he will alert you to arrangements once made (roger.morris@dsl.pipex.com).

Meanwhile, we look forward to receiving your records.

Recording from photographs - an update

Roger Morris
7 Vine Street, Stamford, Lincolnshire, PE9 1QE

Over the last few years I have written various notes on the results of scanning the internet for photographs of Diptera and, especially, for hoverflies. By December 2013 I had amassed a database of nearly 17,000 hoverfly records from these sources. This database lists 155 species positively identified, suggesting that maybe as much as 60% of the British fauna might be identified from photographs. In practice, rather fewer will be identified from average quality photographs but it is still possible to put names to a surprising number of photographs and to a wide range of species. In this original dataset shots that could not be identified were not recorded. This omission was rectified in the middle of 2013 and by December 2013 some 950 'records' that could not be taken to species were listed. The growth of the dataset is illustrated in Figure 1.

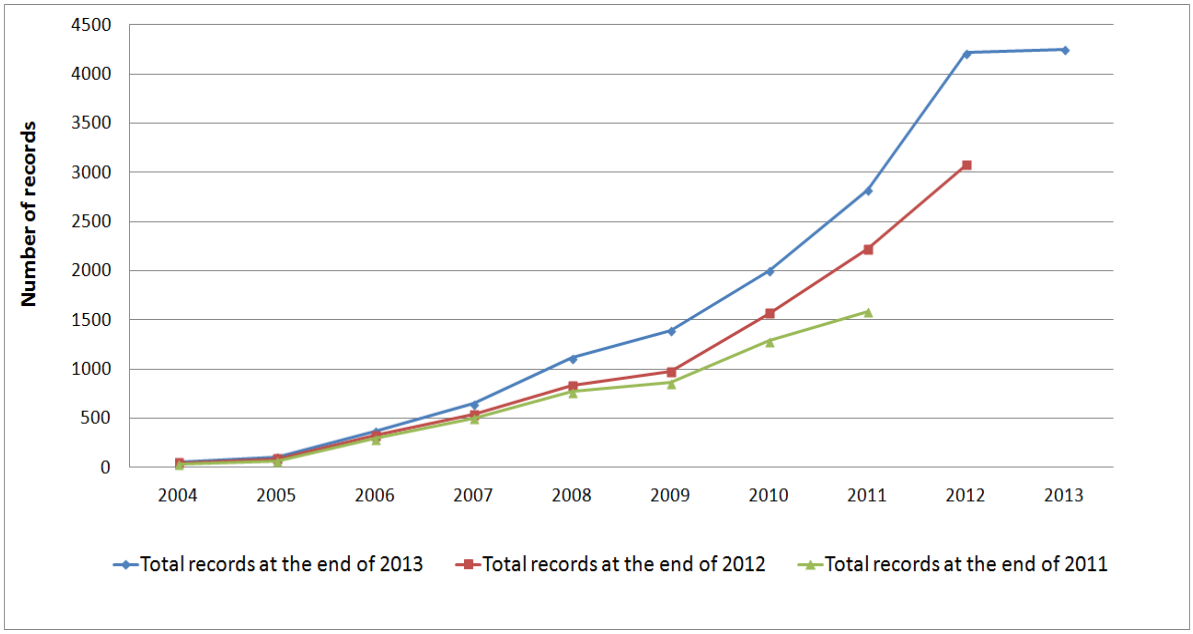


Fig. 1. Growth of the database between 2011 and 2013.

2013 was a critical turning point because a great deal of effort was made to seek out records from Flickr using techniques that could not be employed now because the design of the website has changed and has made it far more labour intensive to track down the locations where photographs were taken. It is doubtful whether such an exercise could be repeated today using volunteer labour! In 2014 much less effort has been made to pursue data from Flickr, whereas a great deal more effort has been spent supporting recruits to the UK Hoverflies Facebook page (many of whom are/were Flickr users recruited during contact to secure location data).

As there appears to have been very limited effort to quantify the potential of photography as a medium for biological recording, it seems logical to reflect on what can and cannot be done for more difficult taxa such as Diptera and Hymenoptera. There is also a need to discuss the techniques that may be employed to reach a conclusion on an individual's identity.

The quality of photographs posted varies hugely, from fuzzy long-range shots to extremely crisp photo-stacked shots. Clearly there are limits to what can be done with poor photographs, but high-resolution sharp photos can be almost as good as a specimen in a single plane. The problem is that without several photos from different angles it is unlikely that more challenging taxa will be identifiable, with occasional exceptions: hence out of 17,000 records there are small numbers of records of taxonomically difficult species such as *Cheilosia*, *Pipiza* and *Platycheirus*. In reality, however, part of this data weakness can be explained by the low numbers of photographs of these taxa posted on the internet.

Photographers who post high quality photographs on Flickr often produce shots that can be readily identified - the eye hairs of *Syrphus torvus* often show well, and on one occasion the bald patch on the underside of *Eumerus funeralis* hind

femur showed sufficiently well to allow a firm identification. Anybody wanting to see what can be done should visit Brian Valentine's (LordV) Flickr site[1]. It is perhaps no surprise that Brian was a significant contributor to photographs in the WILDGuide. High quality shots of this nature can often be enlarged to look for key characters. On occasions the hairs of the scutellum of *Epistrophe melanostoma* are sufficiently well represented to offer confidence in separating this species from *E. nitidicollis*, and there are numerous other species where it is sometimes, but not always, possible to make a firm identification. Therefore, the bigger the dataset gets, it is inevitable that the overall level of coverage will also grow. This of course depends upon the efforts made to investigate individual photographs.

I tend to copy photos into 'Paint' before cropping and re-sizing to the point where resolution is not distorted but allows detailed examination of those key features. Where it is not possible to copy photos (e.g. Flickr) I do a screen shot and then crop and re-size. Clearly, identification depends upon the degree to which critical features are shown, so those species that are most readily identified by a range of large and obvious features are most frequently identified. Obvious examples include *Episyrphus balteatus*, *Rhingia campestris* and several *Eristalis* species, plus of course big obvious species such as the *Volucella*, *Sericomyia*, *Arctophila* and some *Chrysotoxum*.

When I first started trying to identify hoverflies from photographs I was unconvinced that it would be possible for more than a small fraction of the fauna to be identified. In reality, the possibilities are much greater than might be thought, but there are obvious weak areas: *Cheilosia*, *Chrysogastrini*, *Eumerus*, Pipizines, *Platycheirus*, many (but not all) *Syrphus* and many *Eupeodes*. In many cases live animals have a 'jizz' that is not present in the dead specimen. For example, many *Melanostoma* have beautiful pea-green halteres, making the genus highly distinctive even if not all features can be seen.

The big problem is how to turn 'jizz' into a meaningful description that can be used by others. One recent contributor commented that it was time that keys were written for identification from photographs. Such an idea is not quite as far-fetched as it may seem, although I think the aspiration to be able to identify all species from photographs is unlikely to be achieved. Even so, the results to date do point to the need to pay far more attention to the possibility of photography as an adjunct to recording, even though it will never achieve the breadth of records that can be generated by a taxonomically competent recorder employing a wide variety of collecting techniques and retaining specimens for detailed examination.

Are the records useful?

The possible value of a dataset composed of records from photographs will doubtless be questioned. Some commentators might argue that there is little point in making an effort to record data of just a few very common species. Is that really true, however? After all, one needs big blocks of data to generate a dataset that can be interrogated to any level of confidence. Yes, it is always nice to get records of rarer species, but the odd record here and there will never be sufficiently robust to provide any indication of trends in abundance/ distribution. Detecting change requires a lot of data collected in a roughly similar manner, so photography potentially has a role. After all, photographers will record the animals that they see and that make themselves available for a photograph. Many of these are cosmopolitan species that may be the bellwethers for overall insect abundance, so we should not ignore them!

The data assembled from photographers will always be partial, but in the right location they may yield important information. For example, Brian Valentine's garden on the south coast has yielded a list of nearly 50 species over a ten year period. At the most basic level this is indicative of what can and does occur in a highly urbanised environment. Such records combined with the work of other photographers working in a similar manner can help to develop an ongoing monitoring programme for readily identified species. The greater the number of photographers, the more robust the dataset becomes. So, scanning the internet for photographs could be an immensely useful monitoring tool if carried out over many years.

Using this principle, in the spring of 2014 I looked at the possibility of using photographers to track phenological changes. The following graphs are based on the contributions of UK Hoverflies Facebook group members, combined with photographs posted on iSpot and on Flickr. They suggest that as the number of contributors grows, there is a strong possibility that year-on-year changes in abundance and emergence will be detectable in a substantial number of species, some of which are likely to be useful indicators of environmental change.

A first example involves the common spring species *Epistrophe eligans*. It's larvae are often predacious upon aphids on fruit trees and therefore it can be quite common in gardens. When I first started recording hovers in the 1980s I saw it most frequently in May. By 2000 its earliest dates were in the third week of March. This year it was 9 March! It is clearly very responsive to temperature and could be a really useful model for following climate change.

This year there have been good numbers of photographic posts of this species. The majority of records are from the midlands and southern England, with far fewer records from northern England and Scotland (the latter is at the extremity of its range). I therefore wondered if I could show differences in emergence at different latitudes. Even using very limited data for one year, the differences are clear when the data are cleaned by creating a three week rolling mean

[1] https://www.flickr.com/photos/lordv/sets/72157594222560977/

(Figure 2.). In this analysis it is clear that differences in emergence periods can be detected from a relatively small sample of 107 records!

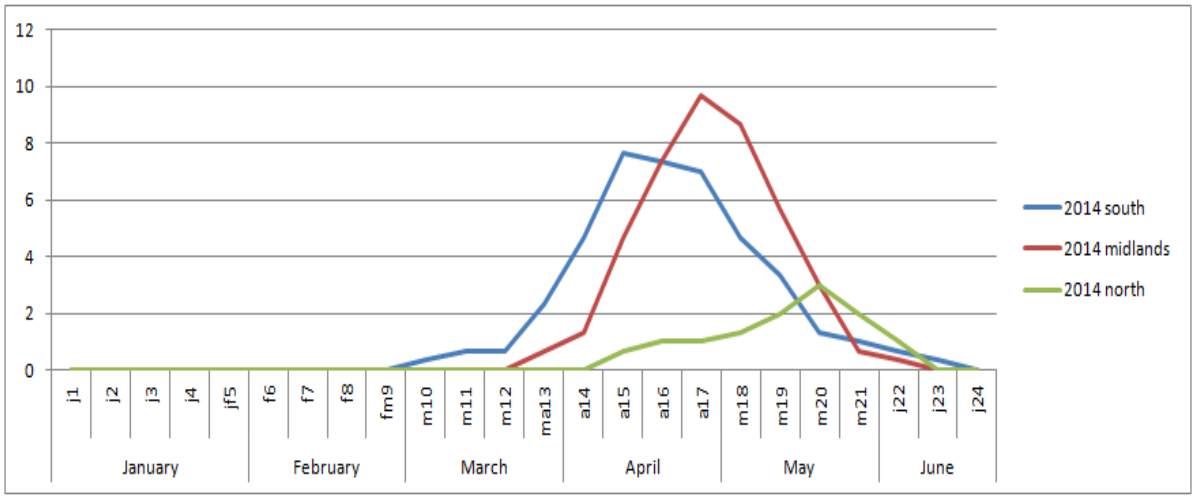


Figure 2. Phenology of *Epistrophe eligans* in 2014 using photographic data. Data are split into 3 regions: **South** - all 10km squares below a line formed below 100km squares SM0000 to TM9900; **Midlands** - below a line formed between 100km squares SC0000 and TA9900 and above the line formed below 100km squares SM0000 to TM9900; **North** - above the line formed between 100km squares SC0000 and TA9900. inter-week fluctuations are smoothed using a five week running mean.

Turning to inter-year variability, there are fewer species with adequate data at the moment but using the most recorded species *Episyrphus balteatus* (Figure 3) it is possible to show how yearly fluctuations might be followed. In the case of *Episyrphus balteatus*, the scale and timing of the main surge in populations appears to be very variable. Bearing in mind that the main HRS database largely comprised data sent in by a relatively small number of individuals each year, many of whom might not make an assiduous attempt to record the abundance of this species, it is possible that photographers whose main interest is the photograph rather than the record will actually create a more accurate record of the abundance of a particular species. After all, the photographer will generally concentrate on a subject that is available and obliging: different species will provide this opportunity at different times of year.

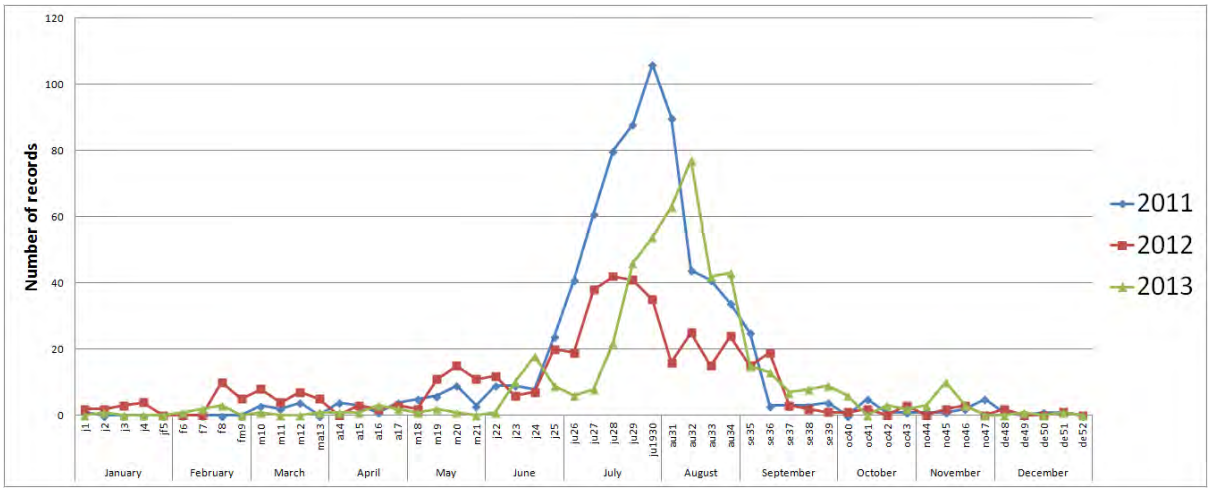


Figure 3. Inter-yearly phenology of *Episyrphus balteatus* based on photographic records.

Can other useful information be gained?

Regular evaluation of photographs has started to show me where the major identification errors occur. Shots of *Syrphus* are most frequently misidentified or given a false degree of accuracy, with huge numbers of shots of males from less than ideal angles listed as *Syrphus ribesii*. On this basis, I am inclined to the view that records of *Syrphus* in many databases are likely to contain a significant number of erroneous records unless the recorder retains and checks

specimens under the microscope. Similarly, there are frequent misidentifications of *Volucella pellucens* as *Leucozona lucorum*, *Syrphus* as either *Epistrophe diaphana/ grossulariae*, and *Eristalis pertinax* as E. *tenax*. Such errors are probably of limited consequence in the context of the size of the dataset, but they do highlight the fact that readily identifiable species can sometimes be misidentified by photographers.

All of this experience will be put to good use in developing a second and subsequent editions of the WILDGuide, and in producing new HRS products.

Myathropa florea pupa

Andrew Cunningham
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On the 19th April, the first Devon Fly Group field meeting of 2014 took place at Whitlands on the East Devon coast with the primary aim of trying to discover *Bombylius discolor*. Within the cleared areas of the heavily wooded coastal slopes, I examined the loose bark of a large felled trunk and found a pupa. Martin Drake, Rob Wolton and I all agreed it looked like a hoverfly so I took it home to see what would emerge. It took a mere two days for a male *Myathropa florea* to emerge. The fly had left the puparium head first via a small quadrate opening. Examination of the interior revealed a smooth silvery coating with the rough grey mottled coating forming a separate thin layer. I suspect the silver coating may be some form of breathable insulating barrier whilst the mottled external coating serves as a degree of camouflage. I have provided an image to illustrate the specimen.

Myathropa florea male (photo: Andrew Cunningham)

Large numbers of *Criorhina ranunculi* at cherry laurel

Ian Andrews
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syrphus@hotmail.co.uk

Criorhina ranunculi is not that difficult to find in East Yorkshire in early April, being seen in small numbers wherever sallows grow - within deciduous and coniferous woodland, along river courses - anywhere where sallows and the odd larger old tree are found together. I find them every spring within the Forestry Commission plantation of Allerthorpe Common (SE7548) in ones and twos.

At Allerthorpe on 19th April this year, I happened to park in a different lay-by from my normal spot, alongside a large cherry laurel (*Prunus laurocerasus*) in full flower, growing at the edge of the Scots pines. It was buzzing with flies at a time when the Common has little to offer insects in terms of flowering plants. *Criorhina ranunculi* was the main species involved and there were several males flying around the top of the bush, at around 15ft. They were highly aggressive towards each other, flying straight at any rivals resting on a leaf or inflorescence and bumping them off their spot with their head, living up to derivation of the name *Crio-rhina* (ram's nose), as they seemed to use it like a battering ram. As well as bumping each other, I also saw them do the same to individuals of the flies *Calliphora vicina*, *Eristalis pertinax* and *Tachina ursina*, as well as the Tree Bumblebee *(Bombus hypnorum)*, any other similarly-sized rival apparently being subject to removal from their territory.

Altogether at one time I was able to count 14 individuals either in flight or at rest on a flower or leaf. Given that some were flying further up to the pines to rest, the actual numbers involved could have been much greater. The behaviour is referred to in Stubbs and Falk, but to see so many individuals participating at one time seemed exceptional, and it was interesting to witness the aggression displayed to other species.

Criorhina ranunculi male at cherry laurel (photo: Ian Andrews)

Observations on *Eumerus sabulonum*

Rob Wolton
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On 21 June this year, the Devon Fly Group visited the north Devon coast in search of this hoverfly. The first place we visited was a steep south-facing slope at Welcombe Mouth, and here we found more than 100 individuals and were able to observe them closely. The larval food plant, sheep's-bit *Jasione montana*, was abundant on the slope, having apparently responded well to the open conditions created by a fire two or three years beforehand which had removed much of the dwarf gorse *Ulex gallii* and ericaceous plants that tend to dominate coastal slopes in the area. About 20% of the ground surface was still free of vegetation. The majority of the *Eumerus* were seen flying a short distance (usually less than 50cm) from one bare patch to another, alighting briefly on the ground or a dead twig or leaf, flying up in response to any other insect flying nearby, apparently searching for mates. None was seen visiting flowers of the sheep's-bit or other herbs, and no egg laying behaviour was noted.

At the second site we visited, just south of Hartland Point, we again found *Eumerus sabulonum*, but only some 10-15 individuals. Here they were again on a sunny south-facing slope, but sheep's-bit was only locally occasional and the sward more closed. The behaviour of the flies was not observed so closely, but appeared similar to that at the first site.

A few days later, I visited a third site, near Hartland Quay, and again found the hoverfly on a sunny, south-facing slope. Here sheep's-bit was patchily common and, as at Welcombe, the slope had been burnt a few years beforehand, but it was also being grazed by hill sheep. The result was an open sward with plenty of bare ground. It would seem that the plant and the fly respond well to management such as winter burning or periodic tight grazing which leaves an open sward with much bare earth exposed.

From specimens collected, we found no difference in the intensity of the red colour on the abdominal tergites between males and females, contrary to the suggestion in British Hoverflies (Stubbs and Falk 2002).

Eumerus sabulonum (photo: Andrew Cunningham)

Odd wing venation in a female *Cheilosia albitarsis/ranunculi*

Ian Andrews
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syrphus@hotmail.co.uk

Certain families of flies, like Tipulids and Empids, seem prone to having odd wing venation, with an extra cross vein or extensions at the bend of a vein, for example. I have not noticed this very much at all among hoverflies, though, so the venation of this female *Cheilosia albitarsis agg*. seemed unusual. As can be seen in the photo below, the cross vein r-m has split at the distal end to form a small circular cell against vein M. That circular cell then has an extension at each side and the whole three cells seem almost to have their own *vena spuria* within them. This unusual specimen was collected at Sand Dale in Dalby Forest, North York Moors on 26th May 2014. I would be interested to know how common such abnormalities are within Syrphid wing venation.

Female *Cheilosia albitarsis/ranunculi* (left) with close-up of its right wing (right) (photos: Ian Andrews)

8th International Symposium on the Syrphidae

We have received the following invitation from Björn Rulik & Ximo Mengual :

Welcome

Dear Fellow Dipterists and Friends,

We cordially invite you to attend the 8th International Symposium on Syrphidae (ISS8). On this occasion, the ISS8 will take place in the heart of Europe, in the historic town of Monschau (Germany) from 4th to 8th of June 2015. After the great time we had in Novosibirsk (Russia), the people voted to have a symposium which reflects a look back to the original model of this symposium: the engagement that stimulates new research collaborations and the delight of sharing experiences on Syrphidae. More information is already posted in our website: www.iss8.zfmk.de

This information is also posted on the www.syrphidae.com, www.nadsdiptera.org, and www.diptera.info.

We invite you to attend the ISS8 and contribute to the scientific program by presenting your research. Come and meet colleagues, get informed, exchange ideas, and have fun!

We look forward to meeting you all in Monschau.

Best regards,

Björn Rulik & Ximo Mengual
The Organising committee

Contact : Ximo Mengual, Phone: 0049 (0)228 9122 292, E-mail: syrphidae8@gmail.com
Zoologisches Forschungsmuseum Alexander Koenig
Leibniz-Institut für Biodiversität der Tiere
Adenauerallee 160
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Newsletter No. 19
Autumn 2014

Editorial

Martin Drake

This issue covers only dolichopodid issues as Adrian Plant has a desk to run whereas I am, on paper, a nearly retired gentleman of leisure. Roy Crossley has contributed two items; more from others would be welcome in future.

Tachytrechus ripicola Loew lives on

Martin Drake

The most exciting recent record is a single female of *T. ripicola* collected by Rob Wolton from Studland, Dorset (SZ037861, 17 May 2014) next to a small lagoon at the sandy northern tip of the area. It was recorded at Studland by Verrall and Yerbury in 1906 and 1912. The last British record was in 1972 at Oxwich on Gower. This find prompted me to write a new key to females of the genus as there are easier features than used in Fonseca's Handbook (see last page of this newsletter).

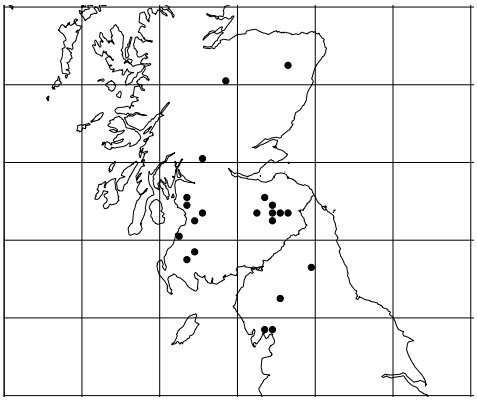
Micropygus vagans Parent – our spreading non-native dolichopodid

Martin Drake

This small species is a native of New Zealand. It was first found in Britain in 1995 on the Dipterists Forum field meeting in Ayrshire (Chandler, 1999). It appears to thrive in damp woods or beside water (streams, ponds) in shady places, with only a few records from open or dry habitats. As befits a non-native, it is not bothered about the presence of other non-native plants – sycamore and Rhododendron are mentioned in records, although the sites are probably generally rather good just because that's what attracts dipterists. *Micropygus* is now widespread in Scotland, reaching into Highland, and now even further south than recorded by Chandler & Smith (2005) who found it north Cumbria. On last summer's field meeting, it was frequent in Roudsea Wood and also found at Whitbarrow. The concentration of records in southern Scotland suggests that is where it originated. When it is found, it is often quite numerous, masquerading as a *Campsicnemus*, but distinguished by the small pale spot on the cross-vein.

Chandler, P.J. 1999. *Micropygus vagans* Parent (Diptera: Dolichopodidae), a New Zealand fly in the British Isles. *British Journal of Entomology and Natural History* **12**, 215-220.

Chandler, P.J. & Smith, J.E. 2005. *Micropygus vagans* (Parent) (Diptera, Dolichopodidae) new to England. *Dipterists Digest (Second Series)* **12**, 172.



Micropygus vagans

Dolichopodids of bogs and heaths

Martin Drake

In Newsletter No 18, I discussed coastal dolichopodids. Now it's the turn of those associated with acid mire and heath. Like coastal species, these form a discrete assemblage whose commoner members one can be sure to find on a good bog or wet heath. Quite what drives this assemblage is unclear. It is easier to understand why bog plants have a physiology adapted to these stringent conditions as they have to sup on the stuff, but it is not obvious how a predatory insect larva taxonomically closely related to very common widespread species should be restricted to these places.

A number of common acidophilic plants have a gap in their distribution in a band from The Wash to Dorset, seen in the characteristic plants of bogs and heaths such as heather, ling and bilberry but also in other less obviously acid-associated species such as broom, rowan, sessile oak and foxglove. The dolichopodid equivalents of these widespread species that avoid the Wash-Dorset band are *Dolichopus atratus*, *D. atripes*, *D. vitripennis* and *Rhaphium longicorne*. Apart from *R. longicorne*, they are probably more tolerant of a wider range of pH as they are sometimes found in fens but it is on bogs and wet heaths where you are guaranteed to find them, and especially wet heath in the case of *D. vitripennis*. Interestingly, that empty Wash-to-Dorset wedge occurs in the distributions of *D. lepidus* and *R. riparium* but in these cases it has nothing to do with an affinity for bogs or heaths.

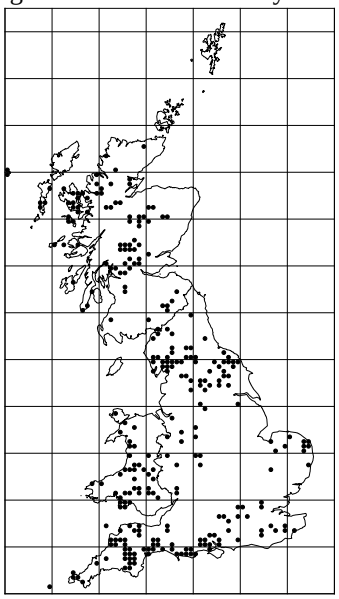
Campsicnemus alpinus and *C. compeditus* are northern and western species found most often at bog-pools. They are particularly scarce in southern England – both occur in the Dorset-Hampshire heathland and in the far SW, and, just to prove a point, *C. compeditus* is on Dersingham Bog in Norfolk, which just about the only real bog in eastern England (the dot on the corner of The Wash). The classic bog-pool species have to be *Hydrophorus* which sit on the water, although they also collected from flushes. *H. albiceps*, *H. nebulosus* and *H rufibarbis* are the three associated with acid pools and seepages, the last being a decidedly upland Scottish species.

Dolichopus rupestris has a reputation for being an upland species but the records suggest that this is a simplification. While it is the species to expect on high ground, long after most other dolichopodids have given up, it occurs near sea level at moors and heaths in the Humber basin, and there are some possibly dubious records from south Cumbrian raised bogs in the Morecombe Bay area. If these records are indeed correct, they suggest that *D. rupestris* is just another 'bog & wet heath' species that doesn't like it too warm.

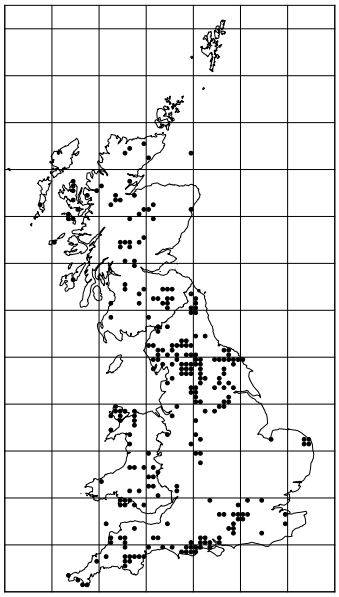
Chrysotus obscuripes and *Syntormon zelleri* are also at boggy seepages and *C. obscuripes* perhaps in more densely vegetated places such as *Molinia* (purple moor-grass) mires than occupied by the two *Campsicnemus* species. Where the vegetation is particularly sparse, for example bare peat or shallow trickles over stones, *Tachytrechus consobrinus* is often a conspicuous dolichopodid.

Gymnopternus angustifrons is probably losing its claim to be a bog species, for instance, Rob Wolton finds it to be common in wet woodland in central Devon. But it is still most likely to be found in bogs and wet heaths.

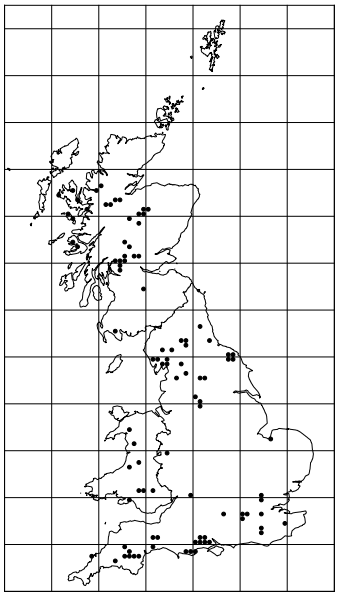
The maps were produced using MapMate which cannot differentiate dates of records. Maps appear in the order in which the species are discussed. I think some of the records are incorrect but have no quick way of checking them.



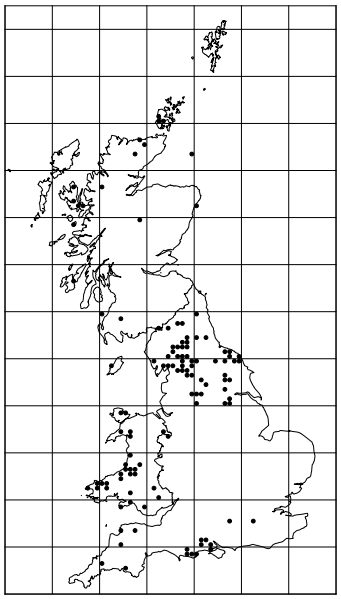
Dolichopus atratus



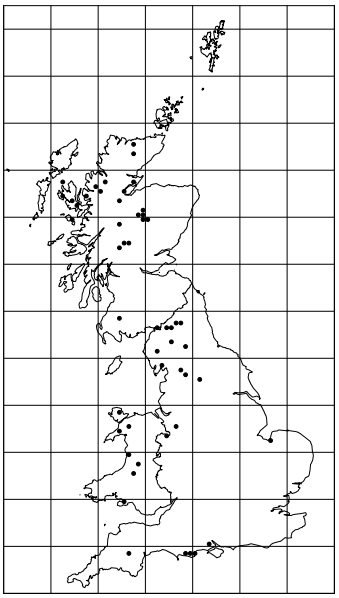
Dolichopus vitripennis



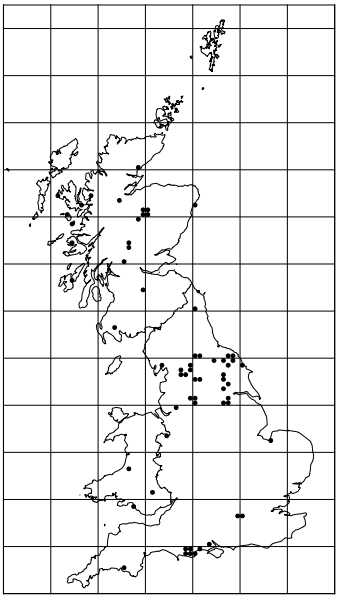
Rhaphium longicorne



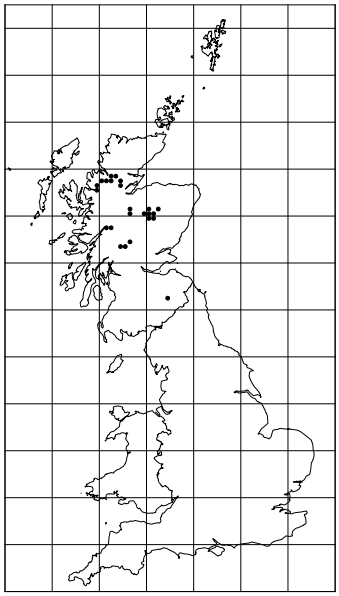
Campsicnemus alpinus



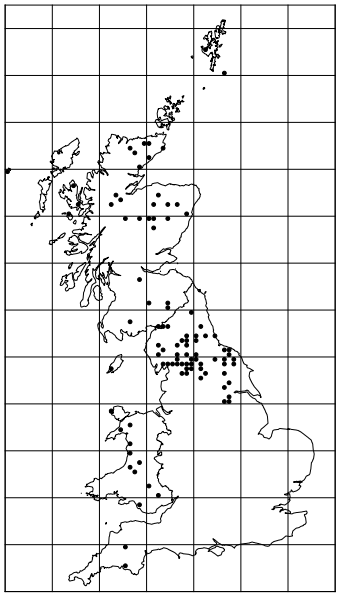
Campsicnemus compeditus



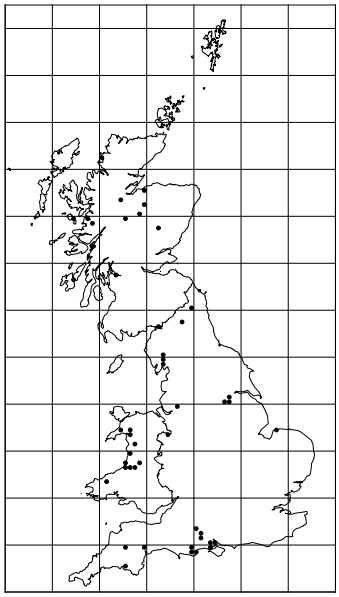
Hydrophorus nebulosus



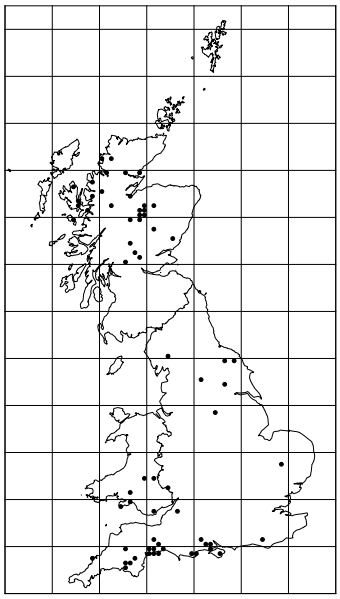
Hydrophorus rufibarbis



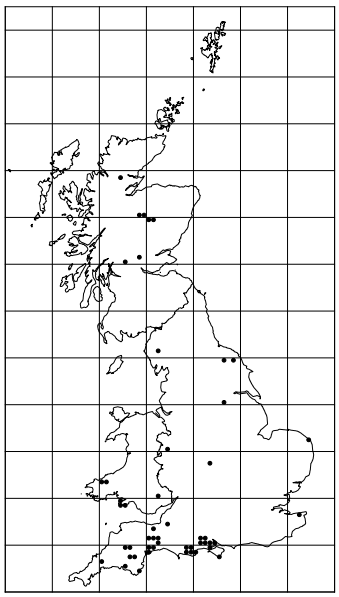
Dolichopus rupestris



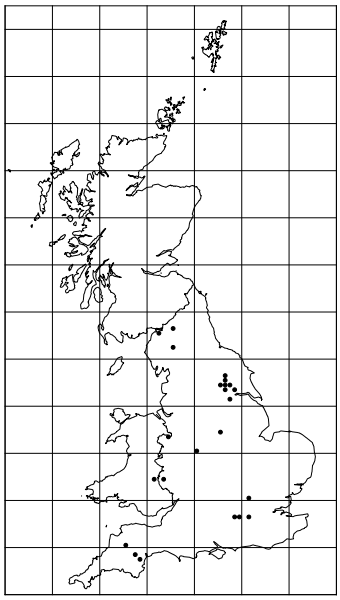
Chrysotus obscuripes



Syntormon zelleri



Tachytrechus consobrinus



Gymnopternus angustifrons

Update on dolichopodid records

Martin Drake

I moved a large number of records to the E&D MapMate database after gathering records from many sources for the review of the status of Dolichopodidae (E&D Newsletter 18, p4). Quite how many new records were gathered is hard to judge since there are lots of duplicates that I cannot find the energy to completely eliminate. Among the useful datasets were those of Stephen Falk that he used for his original review of the status of Diptera (Falk, 1991) and which I digitised from his cards, and of the Dipterists Forum field meetings which Roger Morris has been assiduously collating. I am most grateful to Bjorn Beckman at BRC and to Roy Crossley who arranged for his own data and that of the Yorkshire Naturalists Union to be digitised. Consequently, many species now have a greater concentration of dots in Yorkshire than elsewhere in Britain. I had downloaded some data from the NBN but one cannot always get more than the basic information (hectad, date) and where these records did not fit with the patterns of distribution that emerged, I have omitted them from the D&E dataset. I may have thrown out the odd baby with the bathwater, but there are enough errors from supposedly reputable recorders (like me) without adding distortion from unattributable records.

Yorkshire dolichopodids - historical notes

Roy Crossley

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In 2012 Andrew Grayson drew to my attention what appears to be an anomaly in the RES dolichopodid 'Handbook' by Fonseca. Two species, *Thinophilus flavipalpis* and *Aphrosylus raptor* are reportedly recorded from 'Yorkshire', yet these two species are not on Andrew's recent draft list of Yorkshire Diptera.

I discovered that in the Cheetham cards, which form the basis of the YNU Diptera recording system, both species are represented but the records are not from Yorkshire localities.

A. raptor is recorded by Cheetham from 'Killy Begs' August 1931, and *T. flavipalpis* from 'H.Hd' 13/7/23.

In a telephone conversation with a great niece of Chris Cheetham's in 2012, I learned that 'Uncle Christie', as he was known in the family, had camping holidays at Killy Begs which is on the coast of Co. Donegal, in the north-west of the Irish Republic, and also at Humphrey Head, north of Grange-over-Sands in Cumbria. There are numerous records from these two localities scattered about the Cheetham cards.

It is likely that by some means which we shall probably never know these sites were mistaken for Yorkshire locations when the distribution details were being compiled for the Fonseca 'Handbook'. Perhaps we should leave it at that!

The specimens from Killy Begs and Humphrey Head are in the collections of Leeds City Museum and I am obliged to Clare Brown for kindly making arrangements for me to view the dolichopodid section, which I had revised in 1991 ('Cheetham and Kowarz Dolichopids at Leeds City Museum', *Dipterists Digest* no. 12, 30-31. 1992).

There is a single *Aphrosylus celtiber* (not *A. raptor*) from Killy Begs dated August 1931 – and it is interesting to note that the record card was originally headed '*celtiber*' and then subsequently altered to '*raptor*'. (Possibly the '*raptor*' record is an error). There are a further six *A. celtiber* specimens from the same site dated August 1932 but these are not recorded on the card

There is a single female *Thinophilus flavipalpis* from Humphrey Head dated 13/7/23 in the Leeds collection, and, interestingly, there is a single female *T. ruficornis* from the same site dated August, 1938, but for which I can find no Cheetham card.

Footnote

C.A. ('Chris') Cheetham was a dominant figure in Yorkshire natural history for more than thirty years until his death in 1954. In common with many of his generation he was a competent amateur with wide interests: botanist, dipterist, bryologist, and General Secretary of the Yorkshire Naturalists' Union for many years.

A bachelor, in his mid fifties he retired from business and lived in a cottage in the idyllic Yorkshire Dales village of Austwick. There his singing talents were put to good use and he was concurrently choir master of the village Anglican Church choir where he led the singing at morning services and at the Methodist chapel where he attended the evening services.

An enthusiastic cyclist he was to be seen cycling round the village with his ninety-years-old mother riding tandem, and it was reported that he owned neither a suit nor a pair of trousers. Rather, his characteristic dress was shorts in summer and knickerbockers in winter. My personal recollection of seeing him the year before he died (and before I took up entomology) is that he was wearing said knickerbockers at the YNU December annual general meeting in Halifax.

In the summer of 2012 an article concerning Chris Cheetham appeared in the *Yorkshire Post*. One of his family descendants had re-furbished his old cottage as a holiday home and it is now available for public let when the family is not using it. It was through the contact details that I was able to have a very informative telephone conversation with a great niece (Mrs Barbara Farrer of Leeds). She told me of the wonderful holidays the children had with 'Uncle Christie' and how he had instilled in them a love of nature, and particularly of the wild flowers of the limestone dales, which had lasted a lifetime, and which in turn had been passed on to the younger generations of the family. In return I was able to tell her that after nearly sixty years her Great Uncle's data cards are still regarded as a valuable resource, not only in Yorkshire, but more widely.

Sympycnus desoutteri Parent– a long-standing problem in need of resolution

Roy Crossley

roycrossley@btinternet.com

In *Empid and Dolichopodid Study Group Newsheet* No 3 (March, 1987), Jonathan Cole contributed a very useful and lengthy note entitled 'Dolichopodidae Difficulties'. Amongst the species mentioned was *Sympycnus desoutteri*, in the following terms:-

'This species has two distinct forms in Britain which probably deserve specific rank. The males of one form have hind tarsi with the third segment as in fig. 207 in the Handbook (Fonseca, 1978), the other form has two very long hairs postero-basally on this segment and the apical four fifths of the segment is cut away posteriorly. The latter form has a slightly larger third antennal segment, and these differences are correlated with small but distinct differences in male genitalia. The two forms are widespread with the latter perhaps a little less common. Mr Fonseca was aware of these forms and considered them both to be *desoutteri* but he did not examine genitalia. The continental species *annulipes* (Meigen) has similar long hairs on the hind tarsi but the third antennal segment is clearly longer (about 1½ times the width). Females associated with the two forms have not been distinguished.'

A further note on *Sympycnus* by Paul Beuk appeared in *E & D Newsheet* No.9 Autumn 1990 entitled 'Synonymy and Variability in *Sympycnus'*. Dr Beuk drew attention to a 1981 paper by H.J.G. Meuffels considering the relationship between *S. desoutteri* and the very similar non-British *S. annulipes*. In this study the only character considered was the length and shape of the third antennal segment. This was found to be highly variable and unreliable in separating the two species, and because of many intermediates Mr Meuffels concluded the two species to be synonymous. As *S. pulicarius* (Fallén, 1823) is an older synonym of both names, both 'species' should be named '*pulicarius*'. Unfortunately, Meuffels did not appear to have considered the conspicuous ciliation and shape of the third segment of the hind tarsi to which Jon drew attention in his 1987 note.

In comments appended to Paul Beuk's note, Jonathan Cole gave details of his investigations since 1987 and he had come to the conclusion that because of variations in the two types he had identified he no longer considered them to be good species, and he accepted the validity of *pulicarius* as the correct name. There the matter seems to have rested.

However, whilst preparing this note in the spring of 2013 with the intention of resurrecting the issue, Dr Marc Pollet

told me that he was planning to undertake a revision of the *Sympycnus* '*desoutteri/annulipes/pulicarius'* complex and I am now informed that he hopes to complete the task in the second half of this year. Marc would welcome material in order to incorporate distributional data in his paper and anyone who is able to submit specimens to him is asked to send them to:-

Dr Marc Pollet, Leader Research Group Species Diversity (SPECDIV), Research Institute for Nature and Forest (INBO), Kliniekstraat 25, B-1070 Brussels, Belgium. (e-mail: mpollet.doli@gmail.com)

I am obliged to Jon Cole for very helpful information and advice in compiling the first draft of this note.

References

Assis-Fonseca, E.C.M. 1978. Diptera Orthorrhapha Brachycera. Dolichopodidae. *Handbooks for the Identification of British Insects* **9**(5), 1-90.

Meuffels, H.J.G., 1981 Status of *Sympycnus annulipes* (Meigen, 1824) and *S.desoutteri*, Parent,1925 Diptera, Dolichopodidae). *Entomologische Berichten, Amsterdam*. **41**, 54-55.

The advantages of freeze killing.

Roy Crossley

Ever since starting to collect insects in the mid 1950s I have killed specimens with ethyl acetate, and subsequently retained them in tubes of crushed laurel to relax them prior to mounting. This long-established technique has worked well over the years, but empidoid specimens generally have tended to suffer from collapsed eyes as they dried out after pinning, and although not catastrophic it has meant that head characters are often difficult to see clearly.

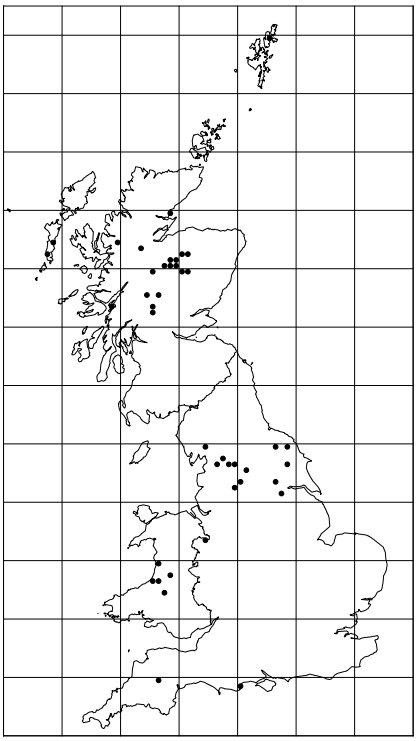
In the summer of 2013, after discussing this problem with several colleagues, I started to freeze-kill my captures and retain them in the freezer until I have time to pin them. I have been pleased with the results, for the vast majority of dolichopodids (which is what I mostly collect these days), retain the complete form of the eyes after drying, and often the legs are extended downwards and the wings are usually held upright above the body. All that is necessary in most cases is to put a pin through the thorax. Very little further setting is needed.

I commend this method to empid and dolichopodid enthusiasts.

Hydrophorus albiceps Frey – not a northern species

Reading the distribution of sites where Fonseca (1978) knew this species to occur, one would think that it was a Scottish species with a couple of outliers in England (Yorkshire and Salop). This is misleading. It is undoubtedly far more frequent in the north (the map even shows one dot on Yell, Shetland), but its distribution is likely to be dictated by a preference for perhaps peat or acid substrates rather than just climate.

Rob Wolton recorded it at acid valley mire on northern Dartmoor in Devon in 2012, and I found it at Studland Heath in Dorset at an acid mire seepage close to sea level in 2006.



Hydrophorus albiceps

Acknowledgements

Many thanks for dolichopodid records in the last 2-3 years to Andrew Halstead, Brian Levy, Del Smith, Howard Bentley, John Hunnisett, John Showers, Jon Webb, Laurence Clemons, Mark Mitchell, Mike Pugh, Murdo Macdonald, Nigel Jones, Phil Brighton, Richard Dixon, Rob Wolton, Roy Crossley and Steve Woodward.

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Dolichopodids .....

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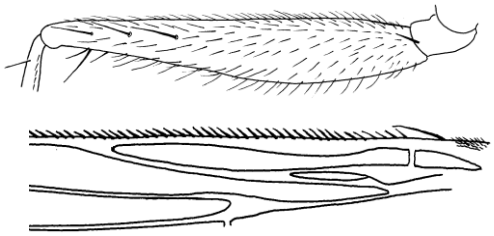
martindrake2@gmail.com

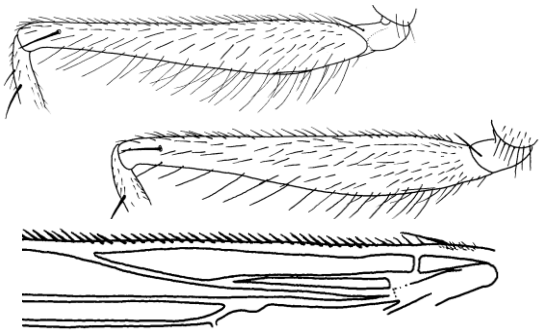
Key to *Tachytrechus* females

Martin Drake

1 Mid femur with short ventral hairs, no longer than about half greatest depth of femur. 3-4 ad preapical setae on mid femur. Costa at base between h and r_1 conspicuously thickened, obviously much wider than cell membrane behind the bulge. Front tibia darkened towards tip. Hind metatarsus dark. 2

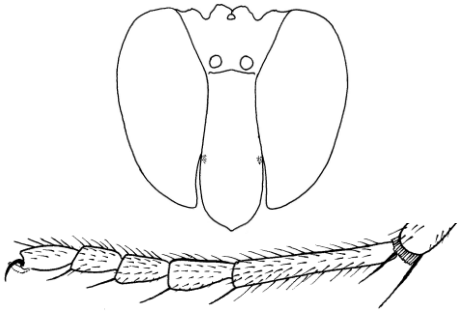


- Mid femur with long ventral hairs, especially antero-ventrals, about equal to or longer than greatest depth of femur. 1 ad preapical seta on mid femur. Costa at base not markedly thick, no wider (usually narrower) than cell membrane behind thickest section. Front tibia almost entirely yellow. Hind metatarsus mainly or entirely yellow. 3



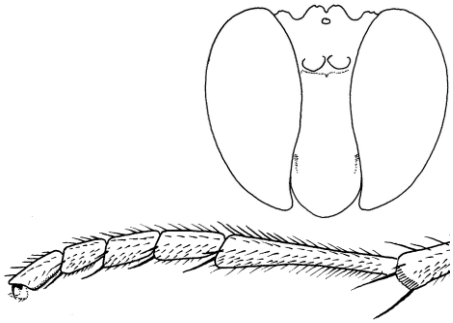
2 Face brown-dusted. Clypeus with semi-circular and slightly pointed lower margin ending below bottom of eyes. First and second antennal segments entirely clear yellow. Front metatarsus hardly wider at tip than at base, and slightly shorter than remaining segments 2-5.

***consobrinus* (Haliday in Walker)**



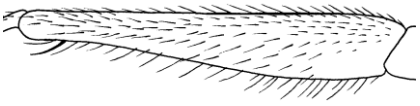
- Face silver-dusted. Clypeus with gently rounded margin level with bottom of eyes. First antennal segment mainly black, second segment partly darkish yellow. Front metatarsus slightly wider at tip than at base (sometimes resembling that of males) and as long as remaining segments 2-5.

***notatus* (Stannius)**



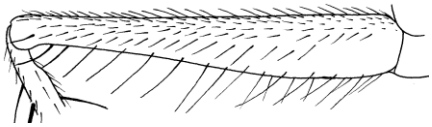
3 Front femur with short ventral hairs which are half as long as deepest part of femur. Mid femur yellow in at least apical half. ac setae short, each seta not reaching as far as two adjacent setae. Hind femur black with about one fifth of tip yellow.

***insignis* (Stannius)**



- Front femur with long ventral hairs which are almost as long as deepest part of femur. Mid femur mainly black, yellow in only apical third. ac setae long, each reaching well beyond two adjacent setae. Hind femur black with the extreme tip yellow.

***ripicola* Loew**



Figures by M. Drake

Cranefly News

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

Newsletter No 28 **Autumn 2014**

Editor: **John Kramer**
Sub-editor: John Dobson

Nephrotoma crocata (Bex Cartwright)

Notices

There are two workshops this Autumn:

Sept. 6th-7th: Cranefly Workshop with John Kramer. Woodland Centre, Yarner Wood, nr Bovey Tracey.

Sept. 27th-28th: Sorby Society, Derbyshire.

Details are available from Derek Whiteley: invertebrates@sorby.org.uk

Field Work Reports for 2014

Pitsford Reservoir, Northamptonshire. 25th May 2014

John Kramer joined the Northants and Peterborough Diptera Group meeting at Pitsford Water Reserve (GR. SP7870) in May. Members attending with JS and JK, were Jolyon Alderman, Kev Rowley, GrahamWanes and Brian Harding. The site includes lake and stream margins, marsh and carr. The weather was warm, dry and still; perfect for recording.

After a morning's field work JK helped the group with identification issues in Anglian Water's Holcot Fishing Lodge. I have not yet received all the records from the group but John found 23 species of cranefly including: *Tipula* (3 spp.), *Ula sylvatica* (Pediciidae), *Gonempeda flava*, *Molophilus* (4 spp.), *Limonia* (4 spp. including *L. flavipes* and *L. nigropunctata*). I found 13 species, 8 of which were not on John's list, giving 31 species in total. It is hoped that John's efforts will encourage more cranefly recording in Northants., which is an under-recorded vice-county for Diptera, except in the Peterborough area.

The Wildlife Trust team and their volunteers at Pitsford Reserve run two moth traps throughout the year and I have been collecting the Diptera by-catch. So far this year 7 species of cranefly have turned up in the traps.

Two days after receiving the June edition of British Wildlife, with Alan Stubbs' article on the comb-horned craneflies, I found a female *Ctenophora pectinicornis* in Stoke Wood, near Desborough. A couple of days after that I received a photo from Robin Gossage of a male *Dictenidia bimaculata* from Glapthorn Cow Pastures.

John Showers

Craneflies in Scotland: Kingussie field trip: June 2014

Spurred on by the DF field meeting in September 2013, a small group of dipterists paid a return visit to Kingussie in early June 2014. Here I have chosen a few highlights of ecological interest rather than a full commentary.

On route to our base at Kingussie in the Spey Valley, a stop at Glen Shee Col gave access to a mountainside at 2200+ft. Here *Tipula varipennis* was frequent on the drier ground (normally thought of as a lowland woodland species). The seepage and rivulet habitats were however of greater interest for craneflies.

At this height, the early spring species *Tipula subnodicornis* and *Molophilus ater* were easy to find (the latter is small, black and wingless, easy to overlook after sweeping, but very noticeable (*cont.*)

Contents

once tuned to what to look for), together with another acid associate, *Euphylidorea meigenii*.

More significant was the presence of some local species, here associated with base-rich flushes with rivulets; *Limnophila schranki* (small specimens), *Eloeophila trimaculata* and *Molophilus propinquus*.

Stops by the River Dee, near Braemar and Crathie, yielded *Tipula montium*, *Hexatoma fuscipennis* and *Limnophila schranki* (the latter at a backwater channel), and adjacent wetland had *Tricyphona unicolor* and *Euphylidorea phaeostigma*.

The roadside limestone quarry just west of Tomintoul was a priority stop for craneflies, and we were rewarded by finding *Tipula cheethami* and *Dactylolabis sexmaculata* on a wet rock face, and on the quarry floor, along with *Dicranomyia occidua* and *Molophilus propinquus* where sparsely vegetated calcareous mud was present. Not bad for day-1, before reaching Kingussie.

The Spey valley has extensive glacial deposits, often well-drained but with boggy ground in the hollows, and some excellent groundwater-fed sloping mires. The high ground accessible *via* the Cairngorms ski lift car park yielded expected species such as *Tipula subnodicornis* and *Molophilus ater*, but a combination of drought and wind was limiting.

The margins of Loch Morlich (a lake with both inflow and outflow, and both gritty and sedge-lined shores) and related ground produced 7 species of *Tipula*.

A very different lake is found at Kinrara, in a big hollow in glacial drift, and connecting narrowly with the River Spey. Here the mire is peat-based, in part floating, and is largely groundwater-fed as evidenced by sloping mire margins (which are not directly related to fluctuating water tables *via* river level fluctuations). Some very unusual species for the Spey Valley were found included *Helius pallirostris* (among reeds and sedges at aquatic margin), *Tipula pierrei* (in a limited area where muddy peat was present) and *Phylidorea longicornis* (seepage on poor fen). *P. abdominalis* was locally common in very wet areas with bog-myrtle (*Myrica gale*). Where the outflow from the Kinrara hollow meets the River Spey, *Dicranota exclusa* was present. Other useful records included *Tricyphona unicolor*, *Cheilotrichia imbuta* and *Idioptera pulchella*.

Craigellachie NNR lies on a hillside overlooking Aviemore. There are two small lakes of limited interest, but it is the shaded stream- and seepage-fed mire that are of particular interest for craneflies; the presence of bog myrtle usually indicates good potential. On this occasion, the main find was the stream species *Pedicia littoralis*, a fairly large yellow cranefly that appears to be uncommon in the Spey valley.

Access to the RSPB Inch marshes was given for some areas that were not critical during the main bird-breeding season. Tromie bridge meadow has some very nice seepages on poor-fen, where *Ptychoptera scutellaris* and *Phalacrocera replicata* were found (the latter is rarely recorded).

A long period of drought had resulted in river levels being low, and so rather poor for river-margin craneflies at that time. We picked up single female of *Tipula bistilata*, as a species of sandy exposed riverine sediments (early June should be the peak period so emergence appears to have been exceptionally early this year; larvae in drained 'terrestrial' sand would warm-up quick in a drought) and some male *Hexatoma fuscipennis* (aquatic larvae, emergence at typical time). We found only a few of other species, such as *Hoplolabis vicina* and *Eloeophila verralli*.

A small party that went to the coast found *Dicranomyia melleicauda* ssp. *complicata* at the western end of Culbin sands, an important Scottish record for this very scarce upper saltmarsh species: *D. sera*, a very local upper saltmarsh species, was also found.

Overall, although their numbers were down during the drought, it was a very productive meeting for craneflies.

Alan Stubbs

DF Summer Field Meeting 2014,
Craneflies in NW Wales: 5-12 July 2014

Bangor is conveniently placed by the bridge from Caernarvonshire to Anglesey, two very different landscapes with very different histories in the recording of craneflies.

In the early 1920s, Barnes surveyed the cranefly fauna of Caernarvonshire for a PhD, as far as I am aware the first ecological study on insects in Britain. It was published in volume 13 of the Journal of Ecology in 1926, so he began his study in the very early days of ecology as a discipline. He chose a series of sampling locations, made some visits and wrote-up his findings in a manner which is very familiar today but ground-breaking at the time. Anglesey by contrast still lacks a published list.

Anglesey is relatively flat, (although not by Peterborough standards). It lacks significant woodland but is famed for its wetlands and sand dunes. It has the advantage of the presence of an outcrop of Carboniferous Limestone, largely masked by Boulder Clay, with a hydrology that supports major fenlands, some of which are NNRs with convenient board walks. There are many ecological variants, including curious juxtapositions, such as sundew growing inches away from true fen vegetation.

The very early spring and drought proved limiting but we did have major finds, including a species of *Pilaria* only previously known from one fen in S Wales and some fens in East Anglia (we have still to confirm it's identity); recorded here in a stand of slender sedge (*Carex lasiocarpa*) in a seepage fen. Other good finds included *Molophilus pleuralis*.

On sand dunes, we succeeded in finding *Nephrotoma quadristriata*, (See map) at Aberfaw, where there are major areas of dune slack. There is

an old record for nearby Newborough Warren. It is otherwise known from a few dunes on the coast of mid- and south Wales, Braunton Burrows on the N. Devon coast and on the coast of SW Cumbria. The coast also includes some saltmarshes, producing *Dicranomyia melleicauda* at several sites. (See map) (*complicata* de Meijere is the subspecies - the male genitalia are very complicated). *D. melleicauda* favours situations where freshwater seepages are present but this is not always the case on Anglesey. *D. sera* was found on the upper saltmarsh on several saltmarshes in association with saltmarsh rush (*Juncus gerardii*); the males of this yellow cranefly are very distinctive as the styles of the genitalia look like a pair of pincers.

The Lleyn Peninsular of SW Caernarvonshire lacks Carboniferous Limestone but it has extensive base-rich igneous rocks, and some interesting fens. Cors Geich NNR proved especially productive: carr beside the entrance had *Nephrotoma dorsalis*, a cattle-trampled margin to a reed bed had *Dicranomyia ventralis*, a cattle trampled wet fen had *Tipula pruinosa*, and beside a pond, *Molophilus pleuralis*. Cors Grianiog had *Erioptera nielseni* in open fen and at Cors Gyfelog, *Phylidorea longicornis*, in fen carr. The latter has few localities, although it is known from mid-Wales.

The Lleyn is noted for its Boulder Clay cliffs, with seepages supporting rare craneflies, but the great storms of last winter had removed most of the landslips and we were too late in the season on the surviving habitat. The north coastal belt of the Lleyn is dominated by granite hills within ultrabasic rocks forming the lower ground. One of the most interesting sites was Coed Elerion, a Wildlife Trust NR with some land owned by the Woodland Trust, on a north-facing hillside with seepages and streams in sallow carr and other woodland. This very productive site had a rich cranefly fauna including *Tipula yerburyi* and *Dicranomyia lucida*.

In northern Caernarvonshire, off the road from Bangor to Llandudno, the Aber Valley extends into the hills. This valley has long been known to be of entomological interest. A previous autumn field meeting had ascertained that there was very promising cranefly habitat with seepages with base-rich conditions within woodland, resulting from ultra-basic rocks which outcrop in part of the valley. This site provided a rich cranefly fauna, the prize find being a specimen of *Tipula truncorum*, a species with very few Welsh records; indeed it is rarely found anywhere within its wide GB distribution.(See map)

In the Conway Valley a party got rained off (in an otherwise dry week), but not before finding *Tipula helvola*. (See map) The 1992 atlas displays a very isolated cluster of records in Merioneth so this is a useful extra location in N. Wales.

Various expeditions headed for the Betws-y-coed area, to the east of Snowdon, with the lure of its woodlands and easy access, moderate altitude wetlands. Here *Ctenophora pectinicornis*, *Tipula yerburyi* and *Neolimnomyia batava* were among the interesting finds. *Dicranomyia aquosa* was found in Snowdonia behind Idwal Cottage, and also at Bethesda.

We hit the peak for *Diogma glabrata*; it was found on a spread of sites, a species often regarded as scarce. But in dashing off in all directions from home base, it is easy to omit to record habitat on the doorstep, a limestone rock seepage yielding *Orimarga virgo*. At the time of writing there was still some material to be checked but the total for the week was about 90 species, a respectable total under drought conditions. Among the other most interesting species were *Limonia dilutior*, *Eloeophila apicata*, *Rhabdomastix edwardsi* and the 'summer' winter gnat *Diazosma hirtipennis*.

Alan Stubbs

Report from the Mersey Basin

As outlined in Newsletter No 26, I have continued sampling sites characteristic of the Mersey Basin, ranging from the peat bogs which are a relic of the ice age to post-industrial sites. Covering several other recording schemes as well as craneflies means that I currently manage about one survey a week, including identification and input of records. John Kramer reckons that it takes at least 6 visits to achieve a reasonably comprehensive cranefly list for one location. As I have at least 16 sites on the list already and there seems to be no end of other interesting places, you will see that my embryonic project is going to take a while. I have a preference to circulate around sites and hit them at different times in successive years. I wonder though whether more intensive sampling of a few sites many times in the same year might be more revealing in some ways?

As highlighted in the Spring 2014 issues of the Bulletin, I have also become involved in helping to get the diptera records from Cheshire verified for submission to the NBN Gateway. For craneflies, it appears that much of the recent data are from surveys conducted by Alan Stubbs and Martin Drake, and are already on NBN.

Martin has kindly sent me a copy of his report on a survey in July 2003 of a large number of locations in the Delamere Forest. A visit to two sites in the forest on 16 May yielded a total of 28 cranefly species, surely by far my best daily tally. These included two noteworthy species apparently not recorded in previous surveys; *Cylindrotoma distinctissima* and *Molophilus bihamatus*. The area as a whole has a range of habitats and currently the Delamere's 'Lost Mosses' project coordinated by the Cheshire Wildlife Trust is aiming to restore peat bog areas which have suffered from drainage and afforestation: this includes re-introduction of the white-faced darter dragonfly (*Leucorrhinia dubia*). It will be interesting to see whether any effect on the cranefly fauna can be detected.

The data verification review has also led to the discovery of Leonard Kidd and Alan Brindle's 1959 publication *The Diptera of Lancashire and Cheshire, Part I*, as mentioned in the obituary in the

last DF Bulletin (No 77). This is more than just a checklist, giving qualitative abundances, and site locations for the scarcer species. It appears that the Delamere Forest was a favourite sweeping ground of those I think of as the Manchester School of dipterists from the 1920s to the 1950s. (The original record cards compiled by Harry Britten senior are still preserved at the Manchester Museum). *C. distinctissima* was regarded at that time as "fairly common" in woods. *M. bihamatus* is not listed.

Another valuable baseline is provided by the report of a comprehensive invertebrate survey by the World Museum, Liverpool (WML) performed in 2009 for the Lancashire Wildlife Trust (LWT) at Astley Moss (SJ69). This report highlighted *Tanyptera nigricornis* as one of the most significant finds. This was especially interesting in view of our independent find of this species last year at Holcroft Moss just a few miles away. The WML did not however find *Nephrotoma crocata*, which I found last year. Anna Keightley of the LWT found a specimen in a polytunnel at a second site, Cadishead Moss (also SJ69) and we saw it again at Astley on 3rd July, feeding on hogweed. Kidd and Brindle (1959) had only 19th century records for this species at Southport and Warrington in VC59 (South Lancashire), but their second supplement (1970) noted a 1964 record at St Anne's-on-Sea. For Cheshire, it was described as local, being found at 5 or more unspecified locations.

Cranefly News No 26 described an outbreak last year across Warrington of *Nephrotoma dorsalis* from its expected habitat of exposed river sand or shingle (see Chapter 4 of the Dipterists' Handbook). One male has been seen again this year, having entered our bathroom on the night of 19th July. This is another species not recorded by Kidd and Brindle.

I have received from Clive Washington a record of *Dictenidia bimaculata* at Wybunbury Moss NNR near Crewe, while I myself found *Neolimnophila carteri* at Hopyards Wood along the valley of the Marbury Brook, near Northwich. Both these species have only one or two previous Cheshire records.

Tipula helvola was listed in Coe's RES handbook of 1950 as rare and known only from Merioneth and Hampshire. The NBN Gateway distribution map (see maps on last page) shows how it has now been found widely to the south-east of a line from Portland Bill to the Wash. Also since 1980 it appears to have expanded from its Welsh stronghold eastwards to the Marches and into England. My submission of a single record of a female *T. helvola* from Holcroft Moss near Warrington in 2012 met with some caution, not least on my own part. This summer on 22 June I netted six individuals there, five of them males, in the birch and willow areas bordering the lowland bog reserve: in fact it was the only tipulid I found on that day. Moreover the species has turned up at two other locations only a few miles away but in quite different habitats including our own small garden. Pete Boardman's 2007 Shropshire cranefly atlas reports a single record of this species flying over farmland by a wood. He has told me that since then there have been six further records in Shropshire. The breeding habitat requirements would seem rather uncertain, as in the South of England it is known from dry woodland on heaths and chalky soils.

Turning to the more common species, *T. vittata* has provided some attractive photo-opportunities this spring (see photo), it not having crossed my path last year.

Tipula vittata (Photo: Phil Brighton)

Ormosia hederae was another species I completely missed last year. On 8th May around Astley Moss, in rather cool damp conditions, it was swarming *en masse* with a male/female ratio of about 3:1. I don't think it was just a matter of being in the right place at the right time as I have seen it elsewhere this year. The number of records of *O. nodulosa* has been about the same as last year.

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Phil Brighton

Cranefly Report for Shropshire (VC40):

First half of 2014

Most of the first half of this year has been spent putting the finishing touches to 'Shropshire Craneflies' (Boardman *in prep.*), the follow-up to the 2007 Shropshire cranefly atlas (as well as 4 other Shropshire atlas projects), therefore fieldwork has been somewhat limited to date. Now though, with the book sent to the publishers (FSC Publications) there is a little more time for fieldwork scheduled. For those interested, 'Shropshire Craneflies' will cover the 244 species of craneflies, winter gnats and fold-winged craneflies recorded in the county since 1930. Included, apart from up-to-date distribution information, is a family key and synoptic keys to all species recorded, plus lots of other identification information and over 500 figures showing key identification features such as wing photographs, etc. Whilst obviously Shropshire-

focussed, the Shropshire cranefly list will be similar to most other parts of the United Kingdom with the exception of anywhere that has coastal specialists and true upland specialists. It should be available from late summer / autumn from FSC Publications *via* their website, and from other well-known entomological distributors. When it is published I will place a note on the DD website with full details.

So far this year a single new species has been recorded; *Molophilus ater* was found by Nigel Jones close to The Stiperstones NNR in South-west Shropshire on the 16th May. During the preparation of the first Shropshire atlas (Boardman, 2007) I noted Cyril Pugh had found the fly in the uplands above Oswestry, but (annoyingly for us) just over the Welsh border. Unfortunately the countryside Pugh knew in the 1930's has changed very significantly due to mass drainage, and the arrival of sheep has destroyed many of the fabulous sites for craneflies that he would have known along the Shropshire/Wales border. I did predict in 2007 that *M. ater* should turn up in Shropshire at either The Stiperstones or on Long Mynd and so it was nice when this came to pass this year, and just in time to include it in 'Shropshire Craneflies'.

A cranefly I was particularly keen to see and one I had spent quite a bit of time searching for in the build-up to the first version of the atlas was *Dicranomyia ornata*. This is a species associated with butterbur (*Petasites hybridus*) and was found by Ken and Rita Merrifield at Whitwell Coppice in 1994. No other records came to light until I found the fly on the 16th May 2014 at Haybridge by the Mill Brook, a tributary of the River Rea, in the extreme south of the County. It was disturbed from butterbur leaves at the side of the brook growing in a drainage channel. This situation was not that different from other locations that I'd searched in the past towards the end of May (based on Ken and Rita's record date of the 27th May 1974) leading me to the conclusion that either the flight period of the fly is very short, or it just didn't occur where I'd looked for it. It certainly wouldn't have been overlooked as it has various dark patches on the wings that would alert the observer to the presence of something different within the *Dicranomyia* genus. Also taken there was *Molophilus niger*, a dark brown species that we are finding at a lot of woodland dingle and sheltered streamside sites in south Shropshire and the Marches. This species occurs quite early in year with the bulk of records coming from late April through May.

I am continuing to look at the cranefly fauna of seepages this year as part of some work for our local records centre (Shropshire Ecological Data Network) after re-finding *Dicranomyia nigristigma* and discovering *D. aperta* at calcareous seepages on the Long Mynd last year. So far I've found *Gonomyia recta* and *G. abbreviata* on shaded wet sandy spoil underneath willow at a sand quarry site in south Shropshire. Stubbs (*in prep*) suggests both species are found from wooded calcareous sites. Hopefully more findings from this project will be detailed in my report of the second half of this year.

Finally two more sightings of the distinctly local tiger cranefly *Nephrotoma crocata*. The first came from an entomologist who had seen it before (Bex Cartwright) and the second from a non-entomologist who spotted it, photographed it, then circulated the photo via social media where a colleague of mine spotted it and passed it on to me. *N. crocata* has an interesting distribution in Shropshire so please see the accompanying article for more details.

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Peter Boardman

Species Notes

Nephrotoma crocata (L., 1758) in Shropshire

Nephrotoma crocata or the 'Bright-belted Tiger (Stubbs in prep.) has been somewhat of an enigma. Stubbs states the view that it is a species that is seen less now than in previous years. Certainly given today's penchant for digital photography and sharing of images through i-Spot and other social media, confirmed sightings are reasonably uncommon. Stubbs notes that a mildly damp to wet substrate (mostly sand) is the preferred habitat, often in association with pines. Elsewhere in Europe it is known to be associated with dry habitats such as heathland, and with more humid places such sandy or gravelly river banks, fen woodland, or even gardens. Larvae are known to feed on the roots of grasses and tree seedlings but they occur at low density so are unlikely to be viewed as a pest species (Oosterbroek, 2011). (*continued*).

Nephrotoma crocata (Photo: Bex Cartwright)

Through work undertaken on two Shropshire atlases I've been able to build up a picture of the appearance of this species in the county from the first known record in 1927 up to the present day. This also gives me the opportunity to discuss the substrate and habitat.

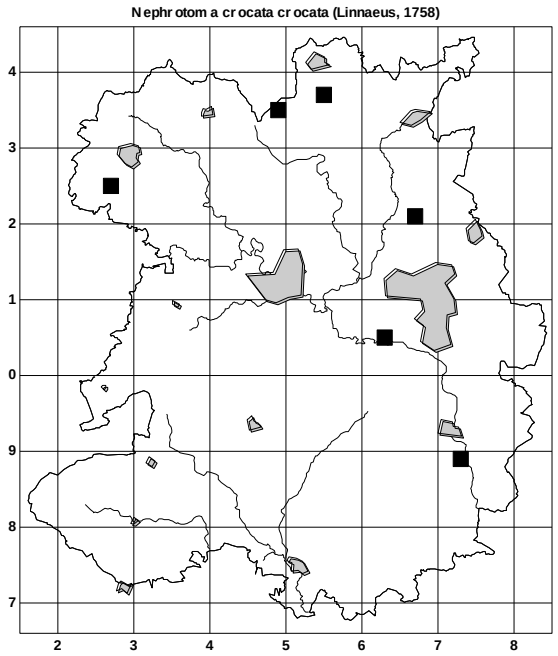
As mentioned, the first Shropshire record was from 27th May 1927 and was recorded by Cyril Pugh at what is now Fenn's, Whixall & Bettisfield Mosses NNR. The substrate here is peat and there is every chance that pines may have featured on the landscape in those days, though judging from old photographs of the site we might be forgiven for thinking the extent of peat-cutting at that site was less than it actually was. Modern industrial peat cutting denuded most of the site in the 1970's-1980's. The peat ranges from extremely wet to totally dry depending on its location across the site. Pugh's specimen from Whixall is housed in Manchester Museum.

There was then a fifty year gap in records before specimens now in the Liverpool Museum collection were recorded; a pair *in cop*. that were taken from Prees Heath in the 1970's. Prees is a lowland heathland site that was used as a World War II airfield. It is currently owned by Butterfly Conservation who are restoring it as habitat for the regionally rare silver-studded blue butterfly. The majority of the heath is very dry, although there is a modern pond with a damper fringe in one part of the site. It is not known exactly where on the site the flies were seen.

The first modern record (27th May 2012) and third in total came from an unexpected site; a working limestone quarry in north Shropshire. Dan Wrench, the county ecologist, was visiting the site and happened to see and photograph the cranefly. The habitat there is mostly bare limestone rock which some areas of spoil, some scrubbed-over, and establishing limestone grassland.

The fourth record was equally unexpected as it was from a very agricultural setting. Bex Cartwright found a few of the flies at the edge of a maize field at Bolas Heath whilst undertaking some pollinator research. She recorded the exact spot and I went over the following week to look at the habitat. She had seen a number of the flies around an area of rabbit diggings in a south-facing field margin. The soil was very close to being pure sand (no doubt dug up by the rabbits) and consequently very well drained.

The fifth record came during a field survey carried out by the FSC's Invertebrate Challenge aculeate hymenopterists at Devil's Dingle near Buildwas on 14th May 2014. This site has been used to tip waste ash from the local power station and has become an impromptu equivalent of a lowland heath in terms of its free-draining qualities. Approximately 179 species of aculeates have now been recorded there (Nigel Jones and Ian Cheeseborough pers. comm.). Bex Cartwright (yes again!) was lucky enough to see a fly examining potential ovipositing sites amongst the waste ash substrate. The immediate site was open, although a shelter belt around a nearby pond protects the area from excessive wind. Bex, a non-dipterist, remains the only person to see the fly at two different sites in Shropshire!



Map of the distribution of *Nephrotoma crocata* in Shropshire

The sixth and final record to date came from Eardington Quarry Local Nature Reserve on, or around, the 2nd June 2014. The site, an old sand and gravels quarry now is leased by the local authority as a nature reserve and looked after by a local Friends Group, one of whom spotted the fly and photographed it. The fly was seen crawling over an area of mixed sand and loose gravel where some bryophytes and higher plants were growing. There are pine trees on the site and I would suggest the fly was photographed in an area quite close to pines.

Given the range of sites where the fly has now been recorded, or at least the range of substrates (peat, damp/dry sand, sandy soil, limestone, and ash waste) it could potentially turn up anywhere where there is sufficient bare, free-draining substrate which is sheltered during the period mid-May to early June.

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Acknowledgements

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Peter Boardman

Tipula (*Pterelachisus*) *irrorata* Macquart, 1826:

Its first discovery in Britain: The Glasgow connection; with a note on Robert Henderson

Tipula irrorata Macquart, 1826 is a common species, probably most easily recorded as larvae. Their characteristic grey bodies are frequently found below moss covering dead trees, under loose bark of dead wood and sometimes actually within the softened timber. Larvae found in this situation nearly always result in the appearance of *T. irrorata* adults. The larvae can be identified from their spiracular field pattern (see Brindle, 1958) without rearing.

Perhaps the adults being more elusive explains why knowledge of the existence of *T. irrorata* in Britain was initially sporadic, and also why there was some confusion about where and when it was first identified. It was discovered fairly late in the history of cranefly studies relative to its status as a widespread species. An attempt at disentangling the earlier records is given below.

A number of early records of the British cranefly fauna were supplied by several active Glasgow-based entomologists who were interested in the group. One of these, Robert Henderson (1864-1940) published a number of papers in the local journals summarising their work. A short biography of him is given below.

Tipula irrorata (as its synonym *pictipennis* Staeger, 1840) was included by Henderson (1911) on the basis of 3 male and 3 female adults which emerged from larvae collected at Cartland Crags (Clyde valley, near Lanark) on 14th May 1903. They were found in soil under trees and were collected in the company of Alexander Ross (1857-1940), another of the local enthusiasts. One of these specimens is preserved in The Hunterian Museum, Glasgow, a female that emerged on 11 June 1903. Henderson suggested it was "Apparently new to Britain".

The use of the name *pictipennis* leads one to contemplate how the early workers on Diptera in Britain identified their captures given the paucity of English literature that supplied key characters. This must have been a problem especially to amateurs living away from major city museums and libraries. But continental European books and papers were accessed and a network of correspondents, local societies and museums all played a part. For example, the Glasgow Natural History Society had an extensive publication exchange programme with other organisations here, in Europe and further afield (it still does but diminishing rapidly as organisations go digital and cease to send paper through the post). In the case of Diptera, another local entomologist, J. J. F. X. King (1855-1933), had a copy of Zetterstedt (1851), preserved in The Hunterian, which has the entry for *T. pictipennis* annotated in pencil as being a synonym of *T. irrorata*. This entry (Zetterstedt, 1851; Sp. No 12, p. 3929) refers only to females whereas a male, queried in print under *T. signata* (Zetterstedt, 1851; Sp. No 65, p. 3932) is also annotated by hand as *irrorata*, thus matching up these two concepts into one taxon.

Clearly, British naturalists could develop their studies and were not as isolated as is sometimes thought. John Russell Malloch (1875-1963) is another example of an amateur engaging in a scientific manner using the latest continental literature. After leaving the Glasgow area he became one of the more famous professional dipterists operating on a world scale (see a biography of him on the Malloch Society website http://www.mallochsociety.org.uk).

There are several other local specimens of *T. irrorata* in The Hunterian, from the years 1899 to 1913, labelled retrospectively as *irrorata* by F.W. Edwards who later accessed the collections (in 1926 and 1937) for his own studies in the Tipulidae. A male from Strathblane (Stirlingshire), 19 July 1899, collected by George Walker Ord (1871-1899), is actually labelled as '*pictipennis*' by Henderson, and that particular record annotated as such in his notebook.

In 1924 Edwards referred to *irrorata* as having been re-introduced as British by Mr Womersley on the basis of specimen from the Bristol area. Womersley (1922) actually says:

"*One male confirmed by Goetghebuer and distinguished from our other species of marmorated "Daddies" by distinct bluish wing reflections. Verrall … gives it in his reputed British Tipulas ... but omits it from his 1901 list*."

Presumably Edwards, in saying that it was re-introduced to the British list, is also referring back to Verrall (1886) and not to Henderson (1911). It transpires however that Verrall merely gives his source as Curtis (1834) and so suddenly we find that *irrorata* was actually first claimed as a British species by Curtis! However, it is on the basis of a record from Parley Heath, Hampshire, in September, 1834. Curtis refers to the original description. Indeed the words of Macquart (1826) were the only available information at that time. The problem is that the adult occurs earlier in the year, in May and June, and so it seems quite likely that Curtis had actually got something different and therefore his record is suspect.

So we come back to Henderson (1911) and then Womersley (1922) as supplying the first definite records on the species, in Scotland and England respectively. The latter was seemingly unaware of the former's claim, even though the Bristol Naturalists Society is one of Glasgow's long-standing journal exchange partners. This may be the consequence of the use of *pictipennis*, a synonym that has never featured in any British checklist and so the link would be rather difficult to make.

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E. Geoffrey Hancock

The Hunterian (*Zoology Museum*), *University of Glasgow*.

Notes on the Pupae of *Dicranomyia goritiensis*

Larvae of what turned out to be *Dicranomyia goritiensis* were collected in moss and algae covering the lower part of a sea cliff face on the uninhabited island of Mingulay, Outer Hebrides, in 2013. Before they could be transported away for examination they had pupated and only later when adults emerged could they be identified.

An hour or so later adults were collected in an adjacent sea cave, accessible only when the tide was low. They were flying out of and around clumps of scurvy grass (*Cochlearia* sp.) growing from the rock face but no larvae were found at that place (see photo of colleague Jeanne Robinson of Glasgow City museums gathering mined leaves of the scurvy grass at this cave).

It was not realised that there was any connection between these two collecting events as the larvae were not recognised in the field. It does, nevertheless provide the opportunity to illustrate the pupal stage of this elusive species whose ecological associations have been debated in previous newsletters.

The pupae of *Dicranomyia goritiensis*

The main features of the pupae appear to lie in the prothoracic horn and the 'fault line' on the thorax which splits as the adult emerges. The prothoracic horn is long, slightly curved, parallel-sided and distinctly knobbed, quite different from other known species of limoniines. The zip-like split on the dorsum of the pupa is also interesting. The corrugated edges appear more complex than other species but relatively few other species have been examined for comparison. At present these images are presented in a simply descriptive manner. Comparison with other species is hampered by lack

Jeanne Robinson of Glasgow City Museums gathering mined leaves of scurvy grass (*Cochlearia* sp.): Mingulay, Outer Hebrides, 2013.

of material, and obviously obtaining preserved larvae would be desirable.

The chances of returning to Mingulay are slight but now that the nature of a breeding site has been established it should be possible to find them elsewhere. The larvae were under a thickness of about one centimetre of a mixture of moss and filamentous algae over which water was trickling. This was on a vertical cliff face of friable rock within the splash zone and in heavy weather would have been considerably drenched in sea water. However, the salt would not appear to be an absolute requirement in such quantities. Adults have been collected elsewhere over seepage substrate that has calcareous tufa-like coating in coastal areas but not so close to the water's edge.

E Geoffrey Hancock

The Hunterian (*Zoology Museum*), *University of Glasgow*.

Some Observations on the Behaviour of *Dictenidia bimaculata*

I found 11 males of *Dictenidia bimaculata* in a small area of birch scrub alongside open heather on the Yorkshire Wildlife Trust lowland heath reserve at Allerthorpe Common, East Yorkshire SE759475, on 28th July 2014. The area had been cleared two years previously and was now birches about 4ft tall, mixed in with *Juncus* and bramble, with piles of large birch logs and the odd rotting birch stump up to about 4ft high.

The males were scattered among the birches and flew up when disturbed. My count of 11 is a conservative one - there were almost certainly more as I only searched in one small area within a larger swathe of suitable habitat.

Dictenidia bimaculata (Photo: Ian Andrews)

I revisited the site on 31st July, at 17.00hrs and again males were present; the four seen were all flying slowly up and down the standing birch stumps and continued to do so for the time that I was there. They made their way to the top of the stumps and then returned to the bottom and started again. I also watched two females for about 10 minutes as they flew around a pile of large birch logs (probably *in situ* for about 5 years). They flew down into the pile and disappeared from sight occasionally, and they would push under any exposed bark and disappear from view there. They also repeatedly entered any gaps where chain saws had cut into the logs, leaving cuts about 8mm wide deep into the logs. I assume they were ovipositing in these areas, although I did not see any direct evidence of such.

It looks to be a productive spot for craneflies, as I also had a single male *Ctenophora pectinicornis* and several *Nephrotoma crocata* in the same area earlier in the year.

Ian Andrews

Conference & Meeting Reports

Some notes from the
8th International Congress of Dipterology:
Potsdam, 15 August 2014

The programme of talks began at 8.30am each morning, finishing after 5.00pm, and every early talk was unmissable! With four rooms in use there were tens of talks every day over the 5 days, and probably all of the 400 participants from every continent had different experiences. Here are just a few thoughts of mine.

In very many of the talks there was a strong focus on phylogeny, particularly in relation to geographical distribution, plate tectonics, and the fossil evidence. The goal is to build a complete narrative of the evolutionary history of the Diptera, integrating taxonomy, world-wide distribution, the fossil record, and of course the 'trees' (cladograms) produced using structural characteristics and evidence from the new molecular techniques. This evolutionary story clearly still exerts as strong a pull on the human imagination as it did 150 year ago and is one concern of many of the dipterists from academia.

The importance of taxonomy and accurate identification was emphasized by Maureen Coetzee from the Department of Medical Entomology at Johannesburg University in her talk on '*Mosquitoes and the prospects for Malaria elimination*'. Out of about 140 species of *Anopheles* Mosquitoes only 4 species are vectors of malaria, so it is important to identify your enemy correctly before trying to eliminate it. She discussed the increasing problems caused by resistance of mosquitoes to the available insecticides, and possible responses. Other presentations relating to disease vectors in the areas of Medical and Veterinary Dipterology, included talks on the biting midges (Ceratopogonidae) and *Stomoxys* flies (Muscidae). Aspects of agricultural and forensic dipterology were also covered while I was busy occupying myself with the Tipulomorpha.

The popularity and importance of digital photography was discussed by Steven Marshall from the University of Guelf in Canada, in a talk entitled, '*Dipteran diversity through a different lens: digital photography and the democratization of Dipterology*'. It raised questions about the efficient curation, dissemination and use of these images, which have relevance to a lot of our current work.

There were a few talks on larval ecology, for example, one by Virginija Podeniene from Vilnius University, Lithuania, on '*Immature stages of the cranefly genus Phyllolabis (Osten Sacken 1877. Limoniidae) with discussion of the systematic position of the genus'*. This is not a genus found in Britain but the larvae feed in the decaying wood of the larch. This was an excellent study of larval and pupal structures, comparing those of *Phyllolabis mongoliae* with those of the genus *Austrolimnophila.*

Andrey Przhiboro from St Petersburg gave another talk relating to larval ecology '*Immature Diptera of small lakes of North-western Russia. Tendencies in the colonisation of shallow aquatic and semi-aquatic habitats*'. Andrey had collected substrates, and individuals from lakes and bred-out the larvae, as well as using emergence traps, He outlined some of the problems he encountered in his work which was very much in tune with our aims in the UK and our efforts to understand the ecological requirements of craneflies and their functional roles in ecosystems.

There was so much more that I have not touched on, including over 100 posters on a wide variety of topics. There was time to discuss the poster themes with their makers and also to meet in person many people that I had only previously met on line. On Wednesday afternoon time was set aside for a panel discussion about the future of Diptera taxonomy and systematics. (*continued*)

The Congress provided an excellent opportunity to think about responses to everything that I had seen and heard from the wider field of Dipterology (and also gave me a lot of ideas for future editions of Cranefly News).

John Kramer

People & Historical Notes

Robert Henderson (1864-1940)

Robert Henderson was born in Ireland and his family moved to Glasgow when he was six years old. According to his obituarist (Somerville, 1944) he excelled academically and athletically at school and went on to study botany, chemistry and bacteriology. By profession he worked latterly for William Beardmore & Co, a famous Glasgow heavy engineering firm, for whom his role is described as foreign correspondent. Exactly what he did is unclear but he did annotate his entomological notebooks with shorthand which suggests some kind of journalistic experience. The notebooks have been shown to a number of people who do not recognise the type of shorthand used, which is a bit frustrating although fortunately the main entries are in normal words.

Henderson (1901a) listed 129 species from the families we think of as craneflies today for the Clyde area. He included Dixidae, Ptychopteridae and Trichoceridae, and also added 11 more species. Percy M Grimshaw, a professional entomologist at the Royal Museum of Scotland, Edinburgh, provided data on the rest of the Diptera in the same volume. Five species were not given names despite consultations with George H. Verrall and E. E. Austen. Nomenclature utilised Verrall's list (1888), the only one available. Over the next few years species continued to be added such as *Tipula irrorata* (as discussed in the article on p. 7 of this newsletter).

Henderson's friends and collaborators were Alexander Ross, George W. Ord, A. Adie Dalglish, J.J.F.X. King and J. R. Malloch. The first two were college friends and it was a great blow to him when Ord died so early, having started a promising career as a curator at the City Museums in Glasgow. A considerable amount of correspondence is preserved between Henderson and Malloch which concerns arrangements to meet for collecting, looking over specimens and resolving names helped by exchanges with other British collectors. These letters would be interesting to transcribe but would take some time as they are densely written in handwriting that would take some experience to decipher.

Outings involving all the local entomologists were frequent in addition to official society field excursions. All the Diptera were covered by these naturalists and other insect orders also, not to mention a whole range of plants and animals, typical of the broad approach of the period.

Henderson's papers are listed below. A few references in the society's Proceedings to exhibits, etc., are not itemised. At one meeting, in referring to his latest paper (Henderson, 1911b), he claimed:

"*it is gratifying to know that the Clyde list ... upwards of 1,000 species is in Britain second only to that list which takes the whole kingdom in its field … and at no distant date will be as complete as that of any of the other groups of Insecta which have been so long and so well studied by local entomologists*".

Henderson's main collection was donated to the University of Glasgow along with correspondence and notebooks, where it is in excellent condition and full of most interesting captures. There are a few specimens in Glasgow City museums separately acquired. All the Diptera records in Henderson's notebooks, not just the hoverflies, were extracted by Kenn Watt for his work on mapping Scottish Syrphidae and entered into a database. The system used became redundant and the records were later scanned for the Diptera recording schemes from a print-out and put into national distribution maps. Unfortunately the process was not sufficiently robust or checked-back with the originals and many of his records are not in the squares to which they belong. They are sometimes quite close, often being in adjacent tetrads, but for example the several dots for *Nephrotoma lunulicornis* in NBN Gateway are not in squares where the river bank sites where they were found occur.

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Thanks to all the contributors who have made this edition so varied and interesting.

The authors' copy deadline for the Spring 2015 edition of Cranefly News (29) is **Dec. 15th 2014**. Please send copy to john.kramer@btinternet.com

Dactylolabis sexmaculata

Dicranomyia melleicauda complicata

Dicranomyia occidua

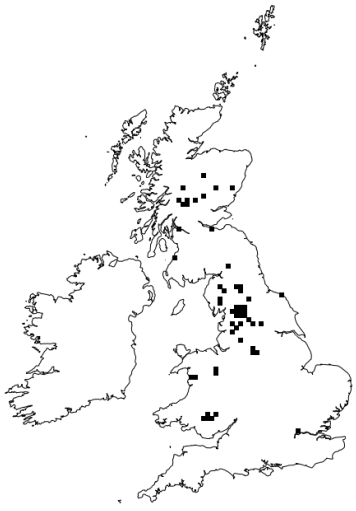
Eloeophila trimaculata

Molophilus bihamatus

Neolimnophila carteri

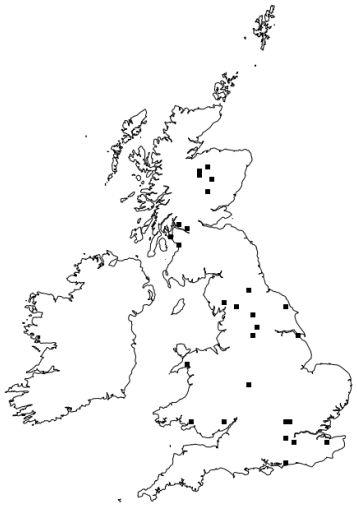
Nephrotoma quadristriata

Tipula bistilata



Tipula cheethami

Tipula helvola



Tipula truncorum

Soldierflies and Allies Recording Scheme

Newsletter 2, autumn 2014

Edited by Martin C. Harvey
ISSN 2053-471X (print)
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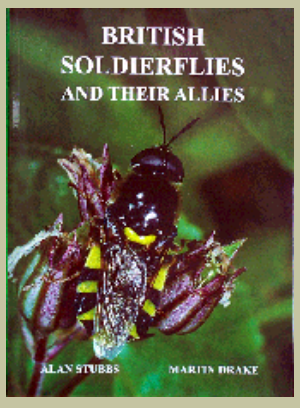
Tree Snipefly, Chrysopilus laetus, *Buckinghamshire*
(© Martin Harvey) - see page 4

Welcome to the second newsletter for the Soldierflies and Allies Recording Scheme. The big news is that the long-awaited second edition of the soldierflies and allies 'bible' is now available – see the box below! Congratulations to the authors and the BENHS editorial team for their hard work in updating this and getting it back in print.

Further identification guides are available via the recording scheme website (see page 5) - there's never been a better time to take up identifying and recording this group! Thanks to all who have contributed articles and photos for this newsletter and records for the scheme.

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



The BENHS is pleased to announce that *British Soldierflies and their Allies* by Alan Stubbs and Martin Drake is now back in print as an enlarged second edition. The book includes all the families covered by the Recording Scheme. Strangely enough, no new species have been discovered in Britain during the twelve years that have elapsed since the first edition, so the plates are unaltered apart from two small corrections to the identification of the *Chrysops* specimens illustrated. There are also a few minor corrections to the keys here and there, and a more substantial improvement to the keys to Tabanidae (horseflies). The additional sixteen pages of the new edition arise mainly from incorporating many observations on the biology and distribution of the flies that have been made and published during the last twelve years.

The price to Dipterists Forum members remains at £20. The book will be on sale at the AES and BENHS Exhibitions, and at Dipterists Day. Copies may also be obtained by post from the BENHS Sales Secretary, subject to an additional charge for postage & packing. He is Dr M. Darby, Malthouse Books, The Old Malthouse, Sutton Mandeville, Wiltshire, SP3 5LZ (www.malthousebooks.co.uk). When ordering, please state if you are a member of DF and/or BENHS.

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Finding the Southern Silver-stiletto – *Cliorismia rustica* Enderlein, 1927 – Diptera: Therevidae

by Nigel Jones vc40insects@talktalk.net

Cliorismia rustica is regarded as a rare and enigmatic fly in Britain. Rightly so, for between its first discovery on the river Bollin in Cheshire in 1875 and 1999, it had only been recorded from twelve vice-counties in Britain (Breconshire, Cheshire, Cumberland, Derbyshire, Glamorgan, Herefordshire, Monmouthshire, North-east Yorkshire, Pembrokeshire, Surrey, West Sussex and Worcestershire). The Soldierflies and Allies Recording Scheme's database holds just 57 records for this 124 year period.

Two specimens caught in Wyre Forest by RC Bradley in 1889 and 1890 (Birmingham City Museum)

In the 21st Century, there have been more frequent records as techniques for finding this elusive species have been established. Post-1999, there are 69 records on the scheme's database, including three records from two new vice counties – North-west Yorkshire and South Northumberland. Even so, the overwhelming majority of records come from Monmouthshire, Cheshire and Cumbria, so that *Cliorismia* does appear to be a genuinely very scarce fly across Britain.

In 2008 Buglife commissioned Stephen Hewitt and John Parker to investigate the distribution of *C. rustica* on six Cheshire rivers and the River Eden in Cumbria (Hewitt & Parker, 2008a and 2008b). These investigations found *C. rustica* at 14 sites on the rivers Bollin, Dane, Etherow, Tame and Goyt in Cheshire, greatly extending its known distribution in that county, whilst on the Rivers Eden and Irthing in Cumbria 12 sites were discovered that hosted *Cliorismia* larvae and pupae. Clearly this species is more frequent than historic records had indicated. That said, *C. rustica* is a very restricted fly along the rivers that it occurs on, being limited to a very specific niche habitat. Sand deposited by high level flood events, on the river bank, rather than within the fluvial channel itself, is where *C. rustica* can be found, particularly where some shade is present.

The Buglife reports are copiously illustrated with photos of the sand deposits in which *C. rustica* larvae and pupae were found, such that on viewing these I was immediately struck by their similarity to a deposit I had seen some years ago on the Cound Brook in Shropshire. Inspired by that, I surveyed the length of the Cound Brook via Google Earth and identified a few likely looking places. I set out to survey one promising looking stretch on 22 June, spending a hot day sweeping through likely looking bankside vegetation and grubbing around in sand deposits out of reach of the summer flood horizon. I failed to find any larvae or pupae and after several hours of fruitless search I became despondent. My last act of the day was to sweep over some tall vegetation to see what other flies I could add to my general Diptera catch for the day. As I busily pooted up many dolichopodids and much small fry I noticed an unfamiliar therevid in the net! I was very soon on my way home to get the therevid under the microscope, where I found that I had indeed captured a female *Cliorismia rustica*. A great outcome to a hard day's field work.

Bank side sand deposit on the Cound Brook; larvae and pupae found in sand indicated by white arrow

Encouraged by this success, I visited the original sand deposit that I had recalled when I first read the Buglife reports. Here I found several promising looking deposits in and at the edge of woodland, where I was very pleased to find therevid larvae and pupae. It was surprisingly easy to locate these, once I had got my eye in for suitable sand deposits in partial, but not heavy, shade (my word, these flies are picky about their precise habitat needs). One merely needs to sift through the top 5cm or so of sand, emptying handfuls onto a white tray and spreading it out. The slim, clear white and eel-like larvae are quite easy to spot, as are the creamy coloured pupae. I also swept around over other sand deposits for other flies and was delighted to capture another adult female *C. rustica* on an area of sand in an open situation close by.

Therevid larvae found in sand alongside the Cound Brook, Shropshire

The next task was to rear the larvae and pupae through. For pupae this was easy. I left them on the surface of some sand collected on site and within a couple of weeks a further female *C. rustica* emerged, confirming that this enigmatic fly is established on the Cound Brook in Shropshire. Later a male and a female *Thereva nobilitata* also emerged.

At the time of writing, two of the larvae collected have pupated, but unfortunately one is misshapen and has died. Through difficulties with feeding, two other larvae have perished and two more survive, although they have still yet to feed. I've tried them on sawfly larvae, chopped up brandling worms (from the compost heap) and mealworm, but none has been taken. Stephen Hewitt has advised that maggots from an angling supplier are readily taken, so anyone wishing to search for and rear *C. rustica* should bear this in mind.

The Cound Brook flows through glacial deposits of sand and gravel. Other *Cliorismia* rivers flow through sandstone geology, and suitable deposits along such rivers are often found by bridges and weirs – the Buglife reports provide plenty of helpful detail. Pure sand deposits, rather than those with gravel mixed in seem to be best. My guess is that *C. rustica* could be present on many more rivers where bank side sand deposits occur, so I would encourage anyone who knows of such places to investigate them during June and July, which seems to be the best time to find adults, late stage larvae or pupae.

Female Cliorismia rustica *swept from the Cound Brook, Shropshire in 2014*

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Recent record highlights

Tree Snipefly in Bedfordshire
© Rosie Earwaker

Tree Snipefly* Chrysopilus laetus *continues to expand its range

This attractive orange snipefly has been showing a welcome expansion in range over the last two decades or so, with records from several counties around London, as well as Devon and Gloucestershire in the west. Jeremy Richardson has been seeing them regularly in north-east London (see his article in Dipterists Digest), and Bedfordshire can be added to the list. On 27 June 2014 Rosie Earwaker found a female Tree Snipefly flying round the RSPB's offices in Sandy (TL188478) (identification by James McGill). Another indoor record came from Martin Harvey's kitchen, mid-Buckinghamshire, on 12 July 2014 (see cover photo). This was also of a female, as were all of Jeremy's sightings in London - where are the males? Possibly they remain in the tree canopy, while the females disperse and come down to ground level looking for suitable decaying wood in which to lay their eggs.

Forest Silver-stiletto in Worcestershire
© Martin Skirrow

Forest Silver-stiletto* Pandivirilia melaleuca *in Worcestershire

On 14 July 2013 Martin Skirrow found a female of this rare species resting on a wall in a converted cowshed on a farm in Berrow, Worcestershire (SO777339). The farm has two old orchards with hollow trees, mostly apple and many blown down . There are no hollow oaks on the farm, but there is a large ancient hollow pear tree close to the building where the fly was found, as well as a huge heap of cut timber, some of it well rotted. Martin is using bottle traps to investigate the fauna of these old orchard trees further. Further details of the record have been published:

- Skirrow, Martin B. (2014). *Pandivirilia melaleuca* (Leow) Forest Silver-stiletto fly (Diptera: Therevidae) in Southwest Worcestershire. *Worcestershire Record* No 36: 16-17.

Downland Robberfly* Machimus rusticus *new to Berkshire

The Downland Robberfly is a large insect, most frequently seen on the southern English chalk downlands. Martin Harvey swept a male from a steep chalk bank during survey work at Sheepdrove Organic Farm, on 29 July 2014. This is the first record in the database for Berkshire (VC22).

Downland Robberfly in Berkshire
© Martin Harvey

Silver Colonel in Berkshire © Jason Gosling

Silver Colonel* Odontomyia argentata*: a new site in Berkshire

An interesting set of records from Jason Gosling includes a series of observations of Silver Colonel at a previously unrecorded site near Abingdon (Berkshire vice-county), in April and May 2014. This species has scattered records in south-east England, but is probably under-recorded due to its early flight period - one to look out for next spring.

Flecked General* Stratiomys singularior *has a good year

A good number of records have been received in 2014 for this species, including several from inland locations: Berkshire (Jason Gosling), Bedfordshire (John O'Sullivan) and Northamptonshire (Robin Gossage).

Flecked General in Berkshire © Jason Gosling

Recording scheme website and other online activity

The recording scheme now has its own website: www.brc.ac.uk/soldierflies-and-allies/

Many thanks to the Biological Records Centre for hosting the site, and in particular to Jim Bacon at BRC for help with setting it up. It includes information on identification resources, how to send in records, an archive of the scheme newsletters and other updates. Much more information could be added of course, and I hope to continue developing the site over the coming winter – if anyone is interested in helping with this please let me know!

The identification resources page contains a number of recent additions, including a guide to the bee-flies in genus *Bombylius*, and links to some excellent photographic keys, produced by colleagues in the Netherlands, for soldierflies (by Menno Reemer) and bee-flies (by John Smit). These are in Dutch, but with thepermission of the authors Jim Middleton and I have produced English translations of the text that can be used alongside the original photo guides.

Soldierflies and other Diptera are also getting popular on Facebook, with a group dedicated to British Soldierflies as well as a wider UK Diptera group. These groups are friendly and fun, and do an excellent job of sharing photos and news for those who are happy to use Facebook. Where I find Facebook less useful is in gathering record details. There has been some discussion about this on Facebook itself, with opinions differing. My own view is that Facebook is an excellent way of sharing photos and discussion, but I don't think it is very good for documenting records: the posts move past too quickly, are not archived and are not searchable. I would urge anyone who wants their records to be included in the recording scheme database to please send me the details if you possibly can, via one of the routes listed on the website.

I know that Roger Morris has been doing a fantastic job of picking up records for hoverflies (and other groups) from Facebook, but I'm afraid I'm not able to do that, and although Roger has in the past been willing to collate records for the soldierflies scheme as well, he is a very busy person and I would rather he didn't feel he had to do that! The recording schemes are run by volunteers with limited time available, and I don't think it is asking too much of individual recorders to keep track of their own records and send them in direct if they wish them to be included.

For the soldierflies and allies my preferred way of receiving records is via iRecord, not least because it allows you to store the photo as part of the record, and is free to use. But I'm always happy to receive records via other routes as well, such as on a spreadsheet. See the recording scheme website for details on this. If you're looking for help with identification of photos you'll probably get a good response on Facebook, but don't forget that iSpot is also available (and on iSpot the photos are archived and searchable, and I can get the data as a download if needed).

Solva marginata (Meigen, 1820) and *Neopachygaster meromelas* (Dufour, 1841) in a Reigate garden

by Jeremy Early

The storm just before Christmas damaged a number of trees in, and adjacent to, my garden in Reigate in Surrey. A large Grey Poplar (*Populus canescens*) came down and a smaller one measuring 12 metres in a neighbour's property ended up hanging over my top lawn. Unfortunately my tree was not in a position to permit the wood to be salvaged for conservation, but the neighbour's was. Consequently when that was felled on 15 May the tree surgeons were able to pile up the resulting logs for me, around 20 of them with a maximum diameter of 30cm. The tree had been healthy, albeit with some softening of the central core in the bottom two or three metres.

I had no great expectation of anything exciting turning up on the logs but on 21 June a fly settled on the front of one of them. I managed to take a photograph and confirmed the subject as *Solva marginata* (Drab Wood-soldierfly), a nationally scarce species which has been recorded at getting on for 30 locations in Surrey. The markings on this specimen gave the lie to the English name, presumably given to the species as a negative comparison with *Xylomya maculata*. There were brilliant yellow marks along the whole of the side of the thorax (rather than just a small yellow spot on the humeri, Stubbs & Drake, 2001) and on most of the tergites.

Solva marginata © *Jeremy Early*

Understandably I looked at the Poplar logs regularly from then on and for the best part of three weeks there was at least one *Solva marginata* visible every day. The species seems always to be on the go and the greatest action usually occurred after the sun had started to go off the logs at 2.30pm up until 5.30pm. The maximum count was four on 22 June – none of the other three specimens had as much yellow on the thorax as the first one.

On 22 June the quartet seemed to be looking for sites in which to oviposit, focussing on the gap between the bark and the wood and on noticeable gaps in the bark where the wood was accessible. This fitted Stubbs & Drake (2001) regarding where eggs are laid. The fact that all the specimens I saw seemed to be female also fitted the theory, first given in Sharp (1907), that males perhaps tend to stay up in tree tops, although the downing of the two Poplars has left a distinct shortage of living samples of this particular tree in the immediate vicinity. Given that *Solva marginata* is believed also to use dead bark in live trees for breeding, the supposition is that the species is not new to the area, especially given the numbers involved on the logs.

Poplar is also probably the most frequent source of larvae for a tiny soldierfly, *Neopachygaster meromelas* (Silver-strips Black), and at 2.20pm on 25 June I found a female running down the front of one of the logs.

Neopachygaster meromelas © *Jeremy Early*

This is also a nationally scarce species, having been found at only three places in Surrey previously, including RHS Wisley and Richmond Park. It is one of the smallest of the Pachygastrinae, with black femora, clear wings and silver strips by the inner orbits. Females also seem to have a violet band across the eyes. Having identified the fly, I let her go and in the middle of the afternoon of 27 June I was able to watch a female wandering over one of the logs from the bottom of the tree for half an hour ovipositing in the bark. The chosen sites were all open to the elements.

The section of the garden where both these species were found is edged with Cherry Laurel (*Prunus laurocerasus*), a plant which has come in for justified criticism by many people for many years. Oddly, though, mine has proved a treasure trove for soldierflies and their allies in 2013 and 2014, with 11 new species. The highlights in 2013 were the nationally scarce *Chorisops nagatomii* (Bright Four-spined Legionnaire) and, a first record for Surrey determined by Graham Collins, *Eupachygaster tarsalis* (Scarce Black), both sexes of which have been seen this year as well. Most of the ten were taken by looking on the under side of the leaves – not a part of the foliage I had ever studied before – and on 6 July I found two female *Neopachygaster meromelas* in that position within 30cm of each other close to the 1.5 metre stump of my Grey Poplar.

Rhagio lineola, *one of 11 species new to the garden and found on Cherry Laurel © Jeremy Early*

These two specimens looked smaller than the original female, and one of the pair was in the same location the next day. Both were back at 1.45pm on 8 July and I collected them; they measured marginally over 3mm. Then in mid-afternoon, a larger female, almost 4mm, was seen ovipositing on the same log as before. Evidently there were at least three females in the garden, but at no time did I see a male despite rigorous searches.

References

- Sharp, D. 1907. *Xylomyia marginata*, Mg., at Cambridge. *Entomologist's mon. Mag*. 43:14.
- Stubbs, A.E & Drake, M. 2001. *British Soldierflies and their Allies*. British Entomological and Natural History Society, Reading.

Editor's note: Jeremy Early's latest book has recently been published: "*My Side of the Fence - The Natural History of a Surrey Garden*" is an enjoyable account of the wealth of wildlife that Jeremy has recorded in his garden, illustrated through with his superb photos. For details see: www.natureconservationimaging.com/Pages/nature_conservation_imaging_book.htm

Mass emergence of *Leptarthrus brevirostris* at Lochawe, Argyll

by David Fotheringham

The Scottish Biodiversity List robberfly *Leptarthrus brevirostris* has been recorded annually in small numbers at a study site north of the village of Lochawe, Argyll, during survey work commissioned by ScottishPower. On 6 June 2014, an 8am visit to a boulder-studded area of acid grassland and heath at NN111265, north of the Coille Leitire SSSI oakwood, at about 100m above sea level, encountered an apparent mass emergence of the robberfly. It was thought perhaps hundreds of individuals were involved, with groups of flies perched on every rock and boulder, apparently warming up in the morning sunshine.

On closer inspection, these were groups of males clustered around females and, as the morning progressed, males began actively displaying – starting by hovering in front of the larger females, their hind legs extended and dangling, then moving in an arc to line up behind the females who would open their wings and pump their abdomens vertically by pushing up on their hind legs – Stubbs & Drake (2001) suggest this perhaps dispersed a pheromonal attractant. Nevertheless, none of perhaps six such encounters witnessed at Lochawe resulted in mating taking place in the immediate aftermath.

Copulating pairs were, however, found on a return visit to the site at 3pm, with pairs lined up tail-to-tail on rocks and dead wood at the site and spare males waiting in the wings. Females were also observed hunting and feeding on a small beetle and what was thought to be an Empididae sp. fly – even when dining, the females were still being attended to by courting males.

None was seen elsewhere the same day in the adjacent Ben Cruachan area and just two *L. brevirostris* were present at the Lochawe site on June 14 2014, suggesting the presence of such large numbers was a localised and shortlived phenomenon.

Reference

- Stubbs, A.E & Drake, M. 2001. *British Soldierflies and their Allies*. British Entomological and Natural History Society, Reading.

Courtship behaviour of *Leptarthrus brevirostris* on calcareous grassland at Millingon Pastures, East Yorkshire

by Ian Andrews

Leptarthrus brevirostris is an abundant species on an area of the Yorkshire Wolds at Millington Pastures SE843529 and it is not uncommon to sweep specimens from the grassy slopes every few yards in early June each year.

On 1 June 2014 at about 10.00hrs there were unusually large numbers visible, with females perched prominently on anything which would elevate them above the grass, especially along a wooded hedgerow at the bottom of the grassy slope, adjacent to a marshy, spring-fed valley bottom. An old, large Ash tree (*Fraxinus excelsior*) with dead lower branches was favoured and the ends of several such branches had a female at rest, surrounded by up to four males.

Watching one such group over the space of an hour, one male would fly up and spend some time hovering a little behind the female with his abdomen pointing down and his long, flattened rear tarsi dangling

down. Gradually, he would approach closer and hover above the female, who would raise her abdomen up towards him, with her wings open, and sometimes also raise one leg up above her abdomen. Occasionally, the male's tarsi would brush against the female's abdomen or her leg. After a couple of minutes, that male would retire and sit back on the branch and before long another would perform the same courtship dance above the female. On a couple of occasions, three males were attempting to hover above the female at the same time. At no time did the behaviour change and eventually the female flew off, with no copulation having taken place.

I later watched the same courtship with two males around a female, all three resting on the dead stem of a fallen Hogweed plant beside a stream lower down. The process was exactly the same, and again ended with the female flying off before any copulation.

It would be interesting to see how this courtship eventually leads on to copulation, as the females seemed to fly off some distance each time.

Leptogaster cylindrica at Musselburgh Lagoons, East Lothian – a first Scottish record

by David Fotheringham

On 1 July 2014, while undertaking biodiversity recording at Musselburgh Lagoons, East Lothian, on behalf of East Lothian Council/ScottishPower, I discovered two male slender-type robberflies, *Leptogaster* sp. These were apparently holding territory low down in an area of tall grassland with a herb-rich ground layer at NT364733, a site that included an extensive patch of Red Clover *Trifolium pratense*.

Aware of the significance of the record, a number of photographs were taken of both individuals, from which their identity was ascertained as *Leptogaster cylindrica*. The photos show clearly the yellow bristles on the occiput and an unbroken dark brown stripe on the mid-line of the tergites, as highlighted by Stubbs & Drake (2001). Recording scheme organiser Martin Harvey subsequently verified the observation and intimated that these constituted the first records of this species for Scotland.

Musselburgh Lagoons is a former disposal site for pulverised fuel ash arising from coal combustion at the former Cockenzie Power Station but is now being operated by the local authority as a site for leisure and biodiversity. Two other slender robberflies were seen at NT367734 on tall grasses growing on an ash embankment – but these were not so approachable, given the unstable terrain, and therefore their identity and sex could not be confirmed.

Another southern colonist was found in the same area of the lagoons on 16 June – the cuckoo bumblebee *Bombus vestalis*. This has been determined by Mike Edwards of BWARS and confirmed as the first Scottish record.

Reference

- Stubbs, A.E & Drake, M. 2001. *British Soldierflies and their Allies*. British Entomological and Natural History Society, Reading.

Large Marsh Horsefly *Tabanus autumnalis* new to Mid-west Yorkshire

by Paul Brothers and Andy Grayson

A lone male of *Tabanus autumnalis* was sighted by Paul Brothers at RSPB Fairburn Ings Nature Reserve, near Castleford, Mid-west Yorkshire on the 14 July 2014, the first record for vice-county 64.

RSPB Fairburn Ings Nature Reserve comprises an area of wet meadows, and is part of the River Aire flood plain. The fly was seen in close proximity to the Visitor Centre in an area of scrubby woodland which is always wet and marshy. The main trees in the locale are hawthorns, blackthorns, willows, sallows, birches and alders which can survive periods of submergence during the winter, when the river overflows its banks and floods the surrounding meadows.

The site has been extensively open cast coal mined. The worked land is full of spoil heaps and stacks. Areas have since been reworked and landscaped with limited tree planting and wild flower seed mix introduced. Since this was carried out the site has naturalised, though some land management and water level management is ongoing by the RSPB team on the reserve. Parts of the site have been grazed by Highland Cattle for several years. They were introduced to keep the grass in check, in order to improve conditions for the ground-nesting birds that form an important part of the wildlife on the reserve.

In recent years the site has flooded to a depth of around 5 feet (1.5m). Thus only in very dry years or exceptional conditions does the area around the Visitor Centre actually dry out completely. There are still a few ponds, made primarily for pond dipping and the construction of these may have improved conditions for *Tabanus autumnalis*. This individual was found sitting on the top of the plastic fencing adjacent to one of these small ponds.

Several other flies have been found sitting on the plastic railings. Presumably they emerge from their pupal casings, from the pond, soil or vegetation and climb up the posts to reach the sunny and warm areas above most of the surrounding vegetation. The black plastic warms up much quicker than the surrounding habitat and assists them with becoming flight ready. It is assumed that this male specimen had done just that. It flew off when disturbed by the flash when a second picture was taken.

Andy Grayson kindly provided the following information via Facebook:
"I've been expecting *Tabanus autumnalis* to turn up in Yorkshire, as it appears to have been extending its British range northwards over recent years, and has been found in counties where it was not known historically, nor in modern times. I have found it in North Lincolnshire and Lancashire over the past three years, and I'm also aware it has been found in Cheshire.

"In my experience, its usual habitats are lowland marshes dominated by reed *Phragmites*, particularly the extensive ones which occur around the mouths of major rivers and large lakes. In coastal areas, its usual habitat centres on ditches.

"Fairburn Ings is a very suitable site for its ecological requirements, but there are many such suitable sites in lowland parts of southern Yorkshire. *T. autumnalis* is a conspicuous species which is unlikely to have been overlooked by past naturalists in northern England. I could find no evidence of it when I investigated highly suitable coastal and inland Yorkshire sites for Tabanidae in the 1980s, 1990s and early 2000s. Neither could I find any evidence of it in neighbouring northern counties until very recent years, so it has apparently extended its British range northwards. There were several old records of *T. autumnalis* from Durham, published in Wingate's Durham Diptera, but the specimens in his collection are *T. cordiger*."

County Recorders

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

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

This map depicts the UK Local Records Centres arranged by standard UK regions. The dipterists shown are acting as County Recorders. They have good local knowledge, are willing to help out with Diptera enquiries in their region and all have some degree of liaison with their LRCs. The yellow labels indicate hoverfly specialism.

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

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

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

Greater London
- Greenspace Information for G. L.

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

Many thanks to everyone who helped with this survey which began with an enquiry to all Local Records Centres and then led on to an investigation of Dipterists known to be working in various areas.

Treat this as a first draft, if you know of workers in areas which seem not to be covered or wish to assist in recording then please contact your LRC (list at www.ALERC.org.uk) and the Bulletin Editors.

Darwyn Sumner

Dipterists Forum

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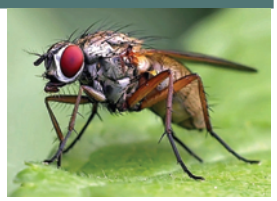

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Whilst all schemes will readily accept records in written form the symbols are used to indicate some of the known (or surmised) methods by which Scheme Organisers may currently receive records electronically. All schemes will accept records in an Excel spreadsheet, add your initials to the filename. If you are sending a list of mixed Families to several schemes simultaneously please add a column with Family names.

Recorder Mapmate Excel Access and other data-bases & tools uploaded to NBN Gateway, faded symbol = historic dataset

iRecord