

Micropezids & Tanypezids

Stilt & Stalk Fly Recording Scheme

Newsletter 2

Spring 2020

First newsletter

Looking back at this Recording Scheme's notes published in the Dipterists Forum Bulletin since 1999 it appeared that there had never been sufficient material to warrant a full newsletter. The development of the *Scratchpad* website however has provided the opportunity to discover much more information.

So this is the first Newsletter for the Recording Scheme, numbered 2 because all the above notes have been collated and compiled into a single document: Newsletter 1, which may be downloaded from the Newsletter pages on this scheme's website.

Accordingly it may be that for some readers this may be their first encounter with the group, here's some helpful material:

Identification

Working through keys to Families is not the best way of sorting material to the level of Family with these groups, that's a last resort. It's probably necessary in the case of *Pseudopomyza atrimana* but it should be possible to get a feel for the general appearance of most of the others and then try to narrow them down. Much space on identification websites is devoted to using images to gain pattern recognition skills or in utilising the skill of others. Decide on a Family or Genus, post it online (e.g. Diptera.info) then see what others make of it. Browsing through all the pictures on the website (Media Gallery | Photograph) is also a useful ploy.

The **keys** from the 2004 workshop are available on the website's Identification page. The experimental **online key** on the same page is based upon features readily recognised from images.

There are plans to do better but in the meantime, use the above and make use of the website's **European Species list** to locate your suspect and study the descriptions there - it's what the original authors said about them and thus definitive.



Dusky Spectacle (*Psila fimetaria*)

Records in photographs

Photographs posted onto identification sites contain three of the four "W"s that make up a scientifically useful biological record. At least the "Who" and "When" are automatic and when the identification arrives you've got the "What". The crucial fourth, "Where", the geospatial coordinates, may be absent though. For many sites that's mandatory when posting (iSpot, iRecord, iNaturalist, Le Monde des Insectes, Biodiversitäts-Atlas Österreich and other European recording sites) and others give you the option (Flickr, Biodiversidad Virtual, MacroID.) Please consider adding Lat/Long to postings on sites such as Diptera.info or photo blogs. Obtain them using Google Earth if you didn't record it at the time.

Recording

If you wish to contribute to this Recording Scheme then I would be happy to attempt to deal with records from anywhere in Europe. The website has already achieved Checklists for every European country.

Spreadsheets are the main currency for this, I receive many from UK contributors who may also use *iRecord* (which unusually will allow records without pictures.) Elsewhere in Europe check for your own countries system (listed in *GBIF* at <https://tinyurl.com/wudtq93>) or use *iNaturalist*.

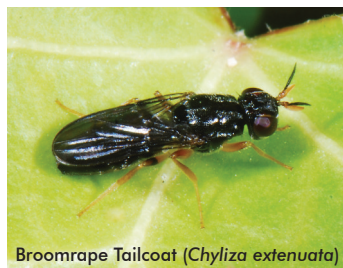
For dedicated recorders wanting to keep detailed records at home there are desktop systems such as *MapMate* and *Recorder 6*.



Common Strider
(*Neria cibaria*)



Broom Stilt (*Micropeza lateralis*)



Broomrape Tailcoat (*Chyliza extenuata*)



Atlantic Reed (*Loxocera fulviventris*)

Photo Nigel Gilligan



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

UK Checklist

Nerioidea (Micropezids)

Stilt-legged

Pseudopomyzidae

Pseudopomyza atrimana (Meigen, 1830) Scarlet-eyed Compost

Micropezidae

Calobatinae

Calobata petronella (Linnaeus, 1761)
Cnodacophora sellata (Meigen, 1826)
Cnodacophora stylifera (Loew, 1870)
Neria cibaria (Linnaeus, 1761)
Neria commutata (Czerny, 1930)
Neria ephippium (Fabricius, 1794)
Neria femoralis (Meigen, 1826)

Striders

Brown-shouldered Strider
 Dusty Rudder Strider
 Montane Rudder Strider
 Common Strider
 Fingered Strider
 Amber Strider
 Bulbous Strider

Micropezinae

Micropeza corrigiolata (Linnaeus, 1767)
Micropeza lateralis Meigen 1826

Common Stilter
 Broom Stilter

Taenipterinae

Rainieria calceata (Fallén, 1820)

Échasseur

Beech Échasseur

Diopsoidea (Tanypezids)

Stalk-eyed

Tanypezidae

Tanypeza longimana Fallén, 1820 European Harlequin

Strongylophthalmyiidae

Strongylophthalmyia ustulata (Zetterstedt, 1847) Western Juggler

Megamerinidae

Megamerina dolium (Fabricius, 1805) Bearded Fool

Psilidae

Rust Flies

Chylizinae

Tailcoat Flies

Chyliza annulipes Macquart, 1835
Chyliza extenuata (Rossi, 1790)
Chyliza leptogaster (Panzer, 1798)
Chyliza nova Collin, 1944
Chyliza vittata Meigen, 1826

Conifer Tailcoat
 Broomrape Tailcoat
 Common Tailcoat
 Sap Tailcoat
 Orchid Tailcoat

Psilinae

Reed Flies

Loxocerini

Loxocera aristata (Panzer, 1801) Black-faced Reed
Loxocera maculata Rondani, 1876 Black Reed melanic form of above
Imantimyia albisetia (Schrank, 1803) Yellow-faced Reed
Imantimyia fulviventris (Meigen, 1826) Atlantic Reed
Imantimyia nigrifrons (Macquart, 1835) Small Reed
Imantimyia sylvatica (Meigen, 1826) Yellow-shouldered Reed

Psilini

Psila fimetaria (Linnaeus, 1761) Dusky Spectacle
Psila merdaria Collin, 1944 Common Spectacle
Psilosoma lefebvrei (Zetterstedt, 1835) Atlantic Pierrot
Chamaepsila atra (Meigen, 1826) Katchit's Columbina
Chamaepsila bicolor (Meigen, 1826) Roder's Columbina
Chamaepsila buccata (Fallén, 1826) Pugh's Columbina
Chamaepsila clunalis (Collin, 1944) Peterkin's Columbina
Chamaepsila humeralis (Zetterstedt, 1847) Claypole's Columbina
Chamaepsila limbatella (Zetterstedt, 1847) Sommer's Columbina
Chamaepsila luteola (Collin, 1944) Armstrong's Columbina
Chamaepsila nigra (Fallén, 1820) Fleeman's Columbina
Chamaepsila nigricornis (Meigen, 1826) Verence's Columbina
Chamaepsila obscuritarsis (Loew, 1856) Baldwin's Columbina
Chamaepsila pallida (Fallén, 1820) Pocket's Columbina
Chamaepsila pectoralis (Meigen, 1826) Foole's Columbina
Chamaepsila persimilis (Wakerley, 1959) Le Foi's Columbina
Chamaepsila rosae (Fabricius, 1794) Carrot Rust
Chamaepsila unilineata (Zetterstedt, 1847) Dagonet's Columbina

For checklists of all European countries and the 2018 & 2020 papers on English names please refer to the website.

The UK is home to 43 of Europe's 90 species. France is top with 55

How to record in Europe

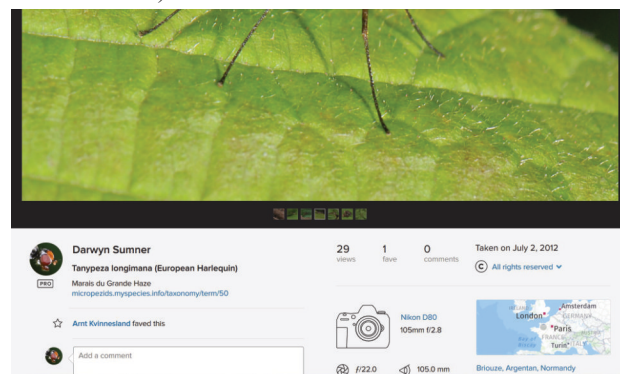
The objective is to get records of species occurrences onto **GBIF** (a Global Biodiversity Gateway.) In the light of recent reports of massive declines in insect biodiversity, this publicly accessible silo provides invaluable data to researchers studying distribution patterns, phenology, constructing habitat models or for monitoring changes.

Recording systems across Europe are patchy. If you've a system in your country (e.g. the Swedish *ArtDatabanken*) then you'll find distribution maps in **GBIF** because your country has a system for recording. Use that system in preference to others. Duplication of species occurrences by two or more different systems is accepted by GBGs so don't be anxious about testing different methods.

If there is no system for the country, or you can't use it because of language, then occurrences can be added via *iNaturalist* as follows:

Part 1: Flickr

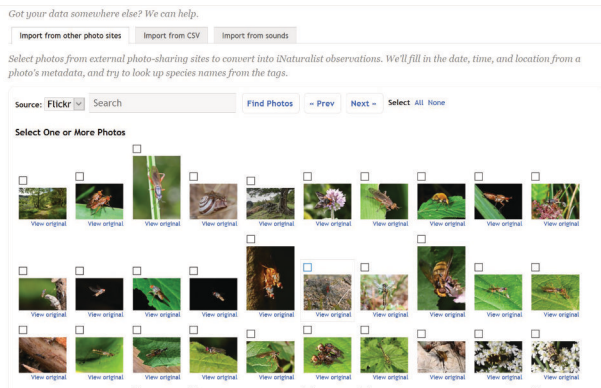
1. Sign up to Flickr and add your image in the usual way. Note that the first 1,000 images are free.
2. Get it identified as best you can (maybe only Family but best to run it through ID websites first to get as close as you can)
3. Geotag your image as follows:
 - 3.1. Click on the "Add this photo to your map" button
 - 3.2. This results in the message: "We've put the photo into the Findr for you (below). All you have to do now is drag it onto the map!" Select **OK** and you are taken to a map panel whose initial position is determined by various factors (such as other geotagged images in your collection which were taken at around the same time)
 - 3.3. Hunt around the map to get your desired location on screen then drag and drop the thumbnail image onto the exact spot on the map
 - 3.4. The display below your Flickr image should now have a map and the name of the nearest town.
4. In Flickr ensure you've added the full species name and location. Also ensure that that will be sufficient to find your image later (2.5) using a filter. This will work on both the text in the description and any Tags (such as "iNaturalist").



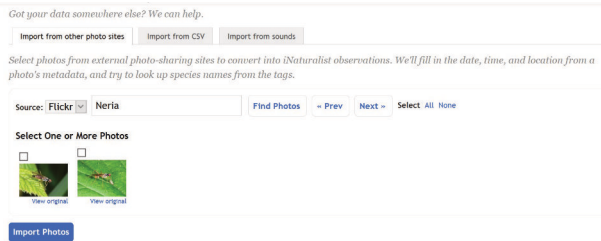
Part 2: iNaturalist

1. Sign up to *iNaturalist*.
2. Select "Add observations"
3. Ignore the "Choose files", select the "More import Options" and choose the "From Flickr, Facebook, etc." option. The first time you do this you will be asked for details of your Flickr account and for permission.

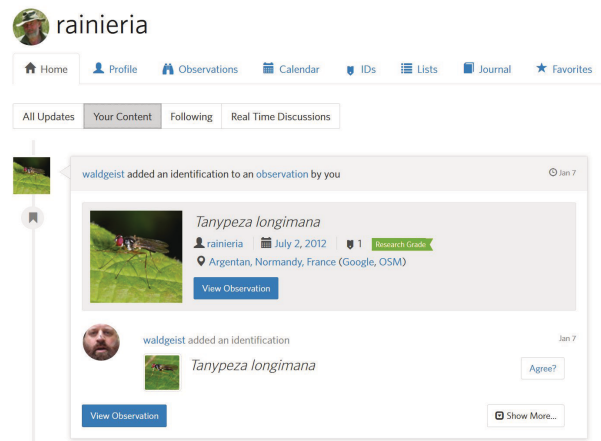
4. You are now presented with a panel as below:



5. Use the filter to narrow down the number of thumbnails you are presented with:



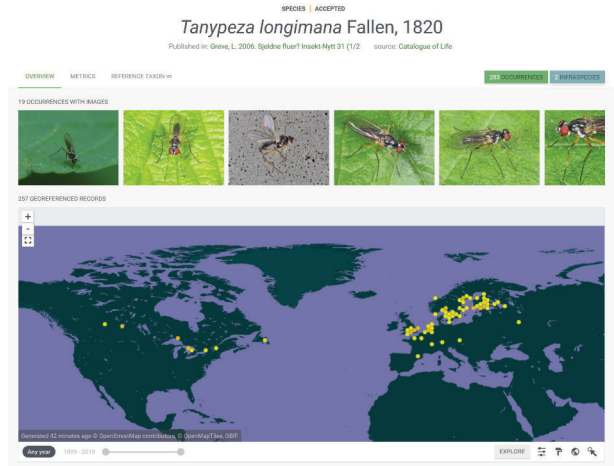
6. Tick the choice boxes on the image(s) you wish to upload
7. This image is now added to your list of *iNaturalist* observations:



8. Fortunately in this example, someone stepped in straight away and confirmed my identification. There are identical images on **GBIF** so helpful persons like this need not be amazing experts. Having a collaborator to assist in raising the record to Research Grade would, of course, be invaluable.
9. Now wait. The above observation was confirmed on 7th Jan and *iNaturalist* uploads to **GBIF** about once a week. If you are impatient then you can check the upload dates at <https://tinyurl.com/yx2rm65f> this one was sent to **GBIF** on 15th Jan:

Part 3: GBIF

1. Search for your taxon in **GBIF**. There are several ways to do this but the fastest may be simply to enter “GBIF *Tanypeza longimana*” into your search engine.
2. You are presented with the following:



- 2.1. Et voila! My record is there, it's the westernmost dot near the north coast of France.
- 2.2. Note the distribution pattern, many records are from countries with recording systems such as UK, France, Belgium, Netherlands and Sweden. Russian contributors are likely to be using the system detailed above. The overall distribution picture is not accurate though. I can find many more than that from published papers.
3. There are useful functions on this page, a list can be obtained detailing each record (indeed the whole dataset can be downloaded). It was hard to find but my record is listed here:

Scientific name	Country or area	Coordinates	Month & year	Basis of record	Dataset	Kingdom
<i>Tanypeza longimana</i> Fallen, 1820	Finland	60.46, 26.20	2012 July	Human observation	Erasmee Entomological Database	Animalia
<i>Tanypeza longimana</i> Fallen, 1820	Finland	60.56, 26.20	2012 July	Human observation	Erasmee Entomological Database	Animalia
<i>Tanypeza longimana</i> Fallen, 1820	Canada	53.76, 105.1W	2012 July	Preserved specimen	Geospatially tagged INSDC sequences	Animalia
<i>Tanypeza longimana</i> Fallen, 1820	Canada	53.76, 105.1W	2012 July	Preserved specimen	Geospatially tagged INSDC sequences	Animalia
<i>Tanypeza longimana</i> Fallen, 1820	Canada	53.68, 112.8W	2012 July	Preserved specimen	Geospatially tagged INSDC sequences	Animalia
<i>Tanypeza longimana</i> Fallen, 1820	Canada	53.76, 105.1W	2012 July	Preserved specimen	Geospatially tagged INSDC sequences	Animalia
<i>Tanypeza longimana</i> Fallen, 1820	France	48.74, 8.6W	2012 July	Human observation	Naturalist Research-grade Observations	Animalia
<i>Tanypeza longimana</i> Fallen, 1820	Sweden	56.66, 14.2E	2012 August	Human observation	Arboretum Swedish Species Observation...	Animalia

Conclusion

Anyone with a **Flickr** account is already well on the way to making **GBIF** contributions. There are certainly several across Europe whom I would dearly like to see using *iNaturalist* in this way. Other photographers too, such as those posting *Neria octoannulata* (Mediterranean Amber Strider) images on the Spanish *Biodiversidad Virtual* (zero records on **GBIF**) or many others on *Diptera.info*

I would be willing to assist anyone wishing to try this out for Micropezids & Tanypezids. Trusted collaborators would be invaluable in ensuring properly verified records attain Research Grade status.

If you have material from expeditions abroad then these can readily be uploaded to **GBIF**. Simply take photographs of your specimens (super high quality not necessary), upload to **Flickr** then *iNaturalist* in batches and seek verification.

Geotagging photographs directly

Users of GPS devices can transfer geospatial coordinates to images taken with cameras. They can be added to pictures via software such as *Basecamp*, *Geosetter* or *iMatch*. Mobile phones and some cameras store such data in the picture's EXIF metadata automatically.

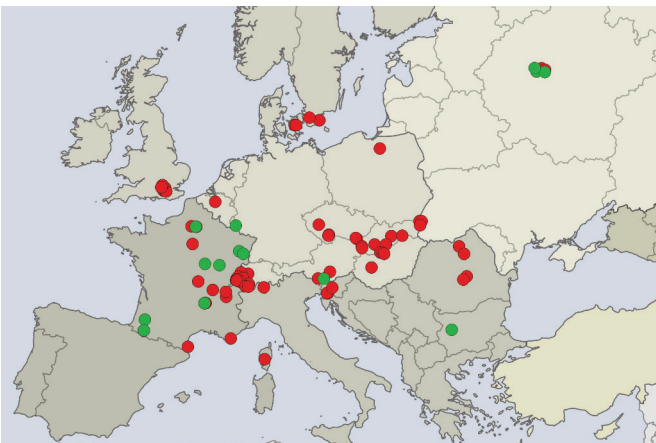
If you didn't geotag at the time then all is not lost, use *Google Earth* to locate your site, add a placemark then copy Lat/Long from its Properties. It's worth naming and saving all these placemarks for later use, just remember to "Save my places" before exiting. Placemarks can be saved as kml files and shared with others.

Micropezid & Tanypezid Recording Scheme - News

Endorsed by GBIF

I managed to get this Scheme's site to be an "endorsed organization" by *GBIF* (thanks to *NBN*.) Nothing unusual about that, several other UK Diptera Recording Schemes are also "endorsed". What I seek now though is a mechanism to submit records at intervals to *GBIF*. It looks as though I've set myself a complex task, somehow I've to get the collected records into Darwin Core format.

What the facility to upload to *GBIF* could mean in generating European distribution maps is illustrated below:



Rainieria calceata in Europe. Red = researched sources, Green = GBIF (Jan 2020) NB a strong association with ancient beech woodland

The red spots are all the occurrences I have collected from a wide variety of sources such as published papers, photo websites (*Diptera.info*, *MacroID* etc.), personal records and those sent to me (Phil Withers' French records) and collections. They include, of course, the UK's *NBN* Atlas records. Outside the UK are all the records that I wish to upload to *GBIF* somehow.

The green spots are from a recent *GBIF* download. They arise from two main sources, firstly participating countries (e.g. France from the *Galerie de Le Monde des Insectes*) and secondly *iNaturalist*.

(*iNaturalist* requires pictures in order to upload to *GBIF*)

Online identification keys: European species

Shortly after the last Bulletin went to press, I sent my *FSC Identikit* (see Bulletin 87) files to Charles Roper. He kindly uploaded them to the *FSC* servers and gave me the links.

Now at www.micropezids.myspecies.info/node/235

They've been used successfully a few times by European workers on *Diptera.info*. Notably by Paul Beuk who found them helpful in narrowing down an Austrian record of *Neria longiceps* (Long-headed Strider). Hopefully UK recorders will find them useful too, it would be nice to think that the keys had been used prior to folk making *iRecord* postings.

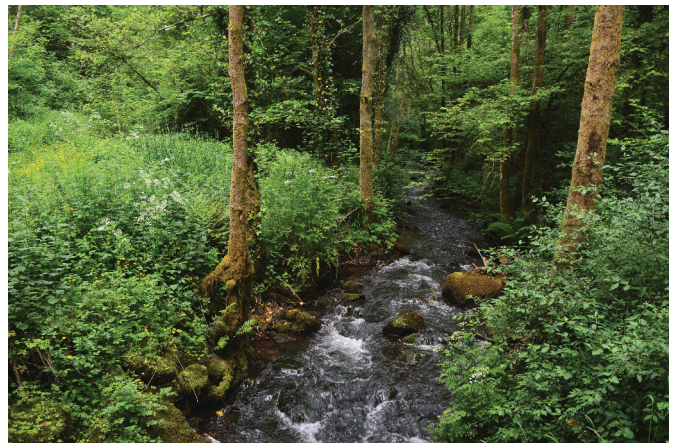
Vernacular names

Vernacular names were assigned to all the European species in a paper (see website) first published in 2018. It has recently been updated in order to include two *Neria* species that have recently been confirmed for Europe. These are *N. caucasica* (Caucasus Strider) & *N. schumanni* (Barred Strider)

Species to look out for ...

Spectacles: The most commonly encountered genus, *Psila*. Unfortunately there are two very similar looking species (see front page) which have the distinctive "spectacle" markings on the thorax (sometimes very feint - look hard.) To distinguish between *P. fimetaria* (Dusky Spectacle) & *P. merdaria* (Common Spectacle) you'll need either a very good photograph showing the antennae clearly or pick it up and use a hand lens.

Typical habitat is moist woodland in dappled shade where they hop around on patches of dense vegetation.



Buckle Wood, Angidy River, Wye Valley (near Tintern)

Catch the right time of year and you may be lucky to see scores of them, do look closely to see if you can spot them ovipositing - we know so little about their life histories.

Striders: Similarly requiring damp areas and shady lekking and roosting patches of vegetation. Typically they hop around patches of tall herbs such as nettle leaves. You are more likely to find them by careful watching than by sweep-netting. Possible association with *Ranunculus* spp. (e.g. Bulbous buttercup), for scarcer European species do make a plant list if you can. Also try standing in reed-fringed pools and searching towards the shore..



Burgh next Aylsham, Norfolk