

Micropezids & Tanypezids

Stilt & Stalk Fly Recording Scheme

Newsletter 3

Spring 2021

Recording Scheme - News

Identification

About half the records reported or made available to the scheme arise from specimens netted or trapped in the field. Without this practise we would find little because photography is confined to only the larger, more striking members of the group or produces results which are unsatisfactory for identification. That is of course unless you sit and watch (or even film) their behaviour, in which case you'll learn far more than if you just find one in a net after sweeping mixed vegetation for half an hour.

The most observed species is *Neria cibaria* belonging to the Calobatinae.

The Calobatinae are not too difficult to resolve. The brown humeri immediately pick out *Calobata petronella* and the amber top to the thorax narrows your choice to *Neria ephippium* (or *N. octoannulata* in the Mediterranean.)

Under the microscope the wing venation also helps separate *Calobata* from the rest of the group; Sc-R₁ distance being long, thus creating a large sc, whilst in others the Sc-R₁ distance is short and sc thus tiny.

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 because they are recorded in your camera 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.



Pale Stiltier (*Micropeza angustipennis*) Krasnodar, Caucasus by Vitaly Lugachev

Calobatinae wings

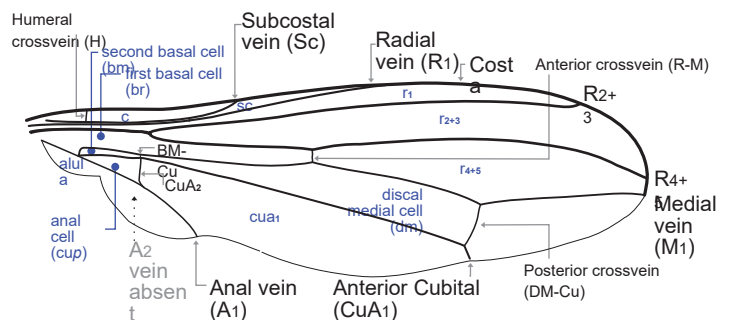


Fig. 1 Wing, *Calobata petronella*, omitting the complex of sclerites which connect the wing to the thorax.

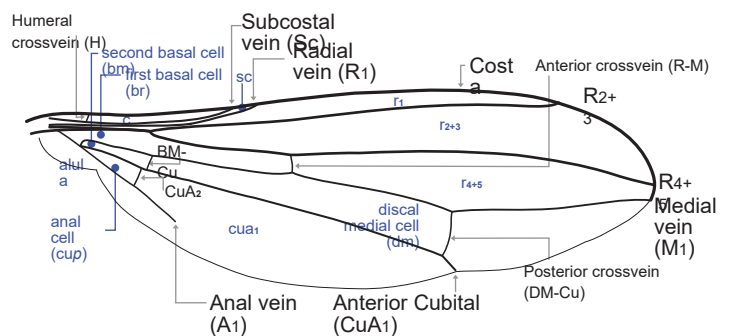


Fig. 2 Wing, *Neria cibaria*, omitting the complex of sclerites which connect the wing to the thorax.



Orchid Tailcoat (*Chyliza vittata*) by Carnifex



Bearded Fool (*Megamerina dolium*) by Renko



Caterina's Columbina (*Chamaepsila longipennis*) by Simon Oliver



Common Stiltier (*Micropeza corrigiolata*) by Benjamin Fabian



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

Online version (with hyperlinks) on [Newsletters](#) page at <http://micropezids.myspecies.info/node/292>

Darwyn Sumner

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

Spreadsheets

Recording: UK

Spreadsheets submissions have been tailing off a little since I last uploaded to [NBN Atlas](#). The reasons could be that annual lists of just a handful may not seem worth the bother or that for recorders who collect over a wide range of taxa it is simpler to upload an entire mixed batch to iRecord rather than engage separately with all the different Recording Schemes.

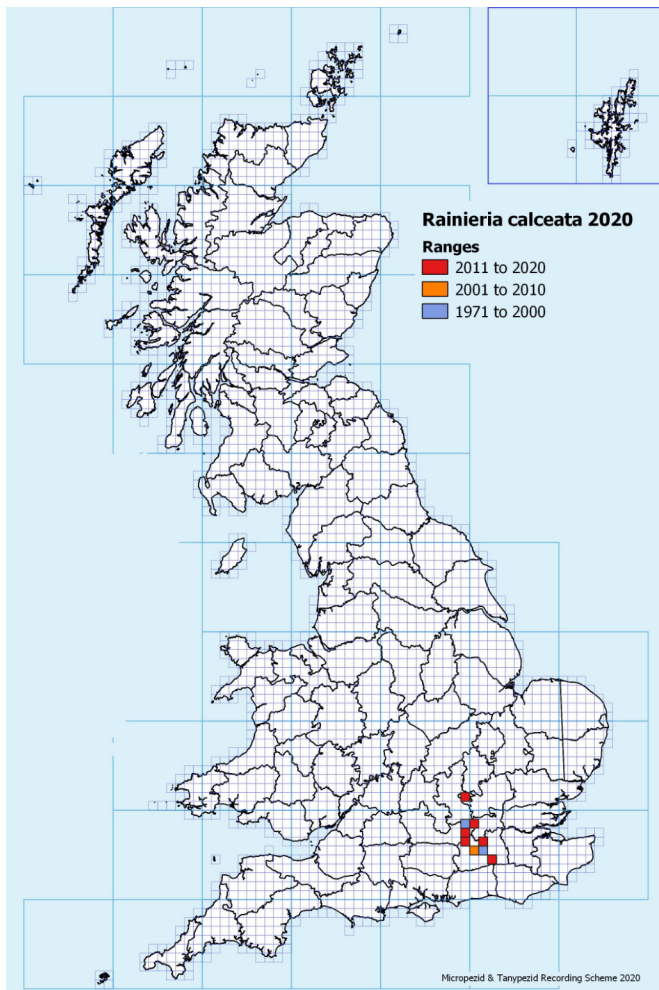
iRecord

iRecord submissions are a mixed bag, both from those who manage their own personal collections (Excel or biological recording applications) and casual observers.

The verification process can be tricky, one has either to trust the recorder to know their stuff or try to identify from a picture. Despite uploading keys to my website there's no indication as to what was used for identification, indeed there's evidence to suggest some are still using the 1940s Collins key.

[Rainieria calceata](#) distribution

I keep revising the UK distribution of this species, one or two records crop up each year and I had a revised set of records from Jonty Denton. Peter Chandler has an interest in this as it's a feature of his work on Windsor Great Park - a flagship species for him as well as for this scheme.



Recording: Europe

One of my objectives has been to get records of species occurrences onto *GBIF* (a Global Biodiversity Gateway.) With the assistance of *NBN* who are my “endorsers” to *GBIF*, I have now made some progress.

As a first test run I analysed the following paper,

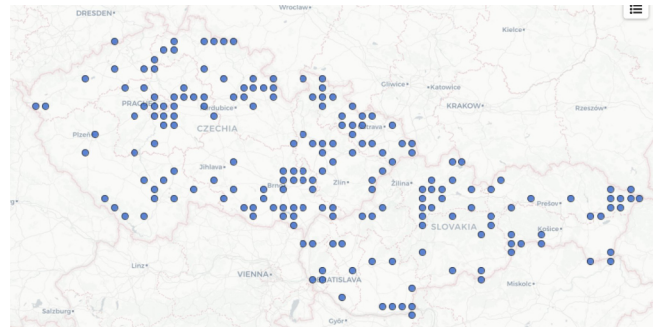
- Roháček, J., & Barták, M. (1990). Micropezidae (Diptera) of Czechoslovakia. *Casopis Slezského Zemskeho Muzea Opava (A)*, 39, 97–111.

extracting the records into a format (Darwin Core) recognisable by GBIF and uploading them there.

The dataset is detailed under the [NBN summary](#) and the [GBIF summary](#) and records are now available for research.

The project featured in an NBN News item [Sharing non-UK datasets with GBIF](#) in November, where you will find links to all the documentation.

Czech Republic and Slovakia were reasonably safe bets for this work as those countries don't yet have arrangements with GBIF. There is now however, a baseline country recordset (439 records) on GBIF:

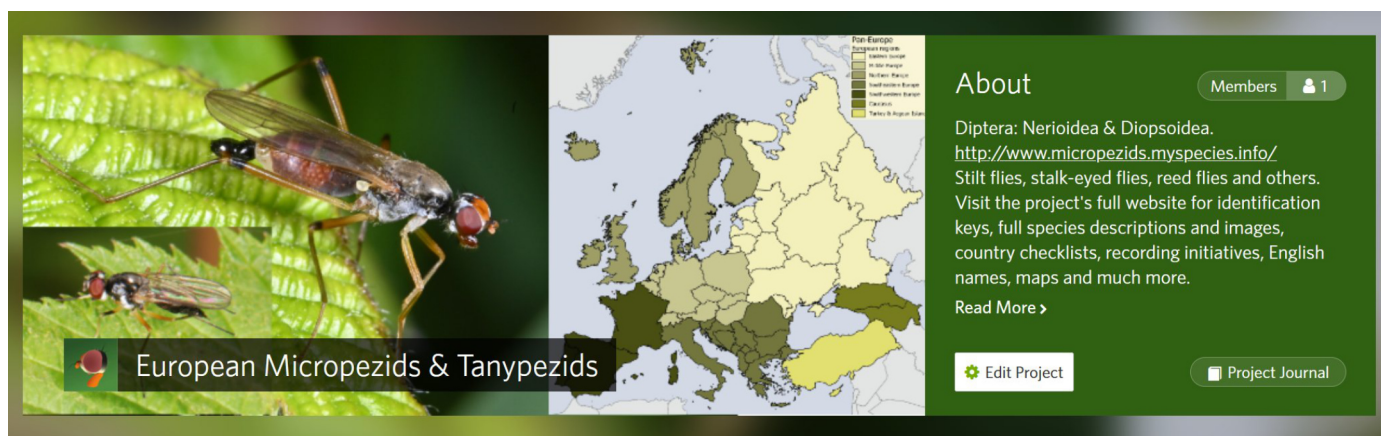


Any GBIF links against taxa (examples can be found on the Scratchpad site) now show more information, for example at the moment the only records for *Micropeza brevipennis* on GBIF are from the above dataset, though it is known from elsewhere.

Now that the system has been demonstrated to work (a first also for NBN via the ever-helpful Sophie Ratcliffe) the plan is to upload further batches from another 50 published papers across Europe. The list of planned work can be found on the [Datasets uploaded](#) page of this scheme's research Scratchpad. Notable amongst these are substantial datasets for Norway, Estonia, Ireland, Portugal and Germany.

France

In September last year Phil Withers sent me the following: “A quick update on progress with the French *Psilidae*. The text is completed, the records are all compiled from the sources we have at our disposal (we think over 1200 specimens have been examined in all). All that is left now are the keys: these too are nearly complete, although for 4 species we are forced to rely on literature criteria as we have yet to see any specimens (although all have been recorded for France)” Sadly Phil passed away (see Bulletin 90) before this project could be completed. His collaborator on that project was Jocelyn Claude who contacted me with a view to continuing with the project. We have now expanded it to cover all Micropezids & Tanypezids. It may take a couple of years.



iNaturalist project

The above is the header of the opening page of an [iNaturalist project](https://www.inaturalist.org/projects/european-micropezids-tanypezids) set up in May <https://www.inaturalist.org/projects/european-micropezids-tanypezids>

To begin it I had to have a minimum number of observations or identifications.

Basically it is just a filter on a taxonomic group(s) plus a defined region (Pan-Europe). To that was added a header image and a logo together with some descriptive text.

Once set up it searches the entire iNaturalist database for records conforming to that filter and presents some statistics. At the time it was set up there were only around 275 observations, rising as follows by the end of 2020:

- Observations 607
- Species 32
- Identifiers 85
- Observers 300
- Members 10

In addition to showing the latest submitted images it also lists the people with the **most observations** and the **most species** plus the **most observed species**, which were:

- *Neria cibaria*
- *Micropeza corrigiolata*
- *Rainieria calceata*
- *Psila fimetaria*

Managing the project is not much trouble given the relatively low number of observations. I checked each one, rejecting those misidentified (coleoptera, psyllids, empids and even plants) and those wrongly assigned to non-European taxa. When confirming an identification it was helpful, under the request to “give a reason”, to provide a link to that particular taxon on the Scratchpad site.

The majority of records arise from Russia, Austria and UK.

Did the project encourage more recording? Possibly it did for a small handful of recorders encouraged by having their identifications confirmed or by there being a **gallery of images** of the group on the project’s page.

The figures include many unverified records, though I’m able to raise some to Research grade, many are first time identifications so unless the original contributor confirms my ID then many remain unconfirmed. This would be easily resolved by some form of collaboration, easily implemented by joining the project as a member and looking for unconfirmed (“needs ID”) records:

Scratchpad site

I wasn’t expecting collaborators on any projects when I set this up 2 years ago. Scratchpads have a “forum” feature and I am in the process of setting this up. Though I’ve received around 50 auto-applications from USA scammers able to bypass the weak security system, I can manage these time-wasting requests in the same way that old style forums used to. **If you want to join the forum then send me an email first.**

Expeditions

La Planète Revisitée. Marc Pollett organised an expedition to Corsica in June 2019. Large numbers of Diptera were collected by various methods and the samples were distributed to various experts across Europe. Paul Beuk got some, finding a handful of Psilidae amongst the mixed vials of Acalyptates. The Micropezidae & Tanypezidae were sent to Jindrich Roháček, we’ve no news of those yet.

Publications

Libor Dvořák sent me his paper arising from an expedition to the Caucasus where he found *Neria caucasica* for the first time since 1990.

Dvořák L, Obona J, Dvořáková K, Mikalsen G, Manko P, 2020. Additional data of several Diptera families from Georgia and Azerbaijan. Boletín de la Sociedad Entomológica Aragonesa 67, 147–153.

Only two species from the Micropezidae, *Rainieria calceata* and *Micropeza brevipennis*, are mentioned in Nikita Vikhrev’s book:

Vikhrev NE, 2020. Diptera: An Introduction to Flies. Moscow: Phytos.

Intriguingly he talks of meadow steppes as a habitat for the latter and of its being common in the Black Earth Reserve near Kursk. Evidently the Zoological Museum at Moscow University would be a good place to look for records of species in this scheme.

Preprints & test keys

1. **European Psilidae.** Paul Beuk took on the task of working through all the Acalypterate material collected during the Corsica expedition. To facilitate this he built a provisional key to the Psilidae (<https://tinyurl.com/y3wfs4xz>) which he would like testing.

2. **Preprints** available at <https://tinyurl.com/y2ybp5f9>
Biogeography, population dynamics and status of *Micropeza lateralis* (Diptera, Micropezidae) in Europe
Observations on *Phytomyza orobanchia* (Diptera, Agromyzidae) and *Chyliza extenuata* (Diptera, Psilidae), both new to Wales, on Ivy Broomrape (*Orobanche hederæ*)

Visual Key to European species of *Micropeza*

D.Sumner 2020

Based upon images, descriptions and known biogeography. It can be tested on images uploaded to iNaturalist, Diptera.info and other European sites.

Identification

Ten species of *Micropeza* are recorded in Europe. One of these, *M. nigra*, is confined to Turkey (Kemal & Kocak 2015) and the eastern mediterranean, one to Romania, Lithuania, Hungary & Caucasus (*M. angustipennis*), two (*M. atripes*, *M. cingulata*) to East European Russia, one to Spain (*M. hispanica*) and one, *M. kawalli*, which is only recorded in Lithuania (Pakalniškis, 2006). Of the remaining four, two are currently known from the UK (*M. corrigiolata* & *M. lateralis*) and of the two others, *M. brevipennis* may be overlooked here or may find its way to the UK, occurring in warm lowland meadows associated with Lucerne (*Medicago sativa*, = alfalfa), whilst *M. grallatrix* is strictly southern Mediterranean.

1—Body mostly black. Pleura without stripes.

2

—Body mostly brown and/or yellow. Pleura with yellow longitudinal stripes

7

2—Legs more than half black

3

—Legs predominantly yellow or yellowish brown

6

3—Legs entirely black



_____melanic forms, *nomina dubia* & non-European species

[*Micropeza hispanica*](#) Bigot, 1886 is probably a melanic form of something (perhaps *M. corrigiolata*), one Spanish record. [*Micropeza atripes*](#) Bezzi, 1895. The author considered it to be a melanic form of *M. corrigiolata*, one Italian record. [*Micropeza kettaniae*](#) Ebejer, 2019 is recorded from Morocco, approximately 70km south of Spain.

—Legs mostly black. Black species.

4

4—Mid and hind femora mainly yellow with two black rings.



_____ [*Micropeza nigra*](#) [Black Stilter]

Turkey and southwards

—Only the hind femora are yellow, these have black rings.

5

5—All segments of the antenna dark yellow.

Propleuron with a row of long setae on the ventral margin. Coxae & legs all black except hind femora. Thorax black with some yellowing on the humeri and the sides of the scutellum. Yellow colouration on the head starts in the anterior part of the frons alongside the eyes, then down past the antennae and around the mouth opening in a thin band.



_____ [*Micropeza cingulata*](#) [Black-legged Stilter]

A mainly black species, only known from East European Russia

—Only the bases of the antennae yellow, the third is black/brown

Genae rusty yellow, frons & vertex black/brown. Thorax & abdomen glossy black. Legs yellow, mid & hind femora light brown.

_____ [*Micropeza kawalli*](#) [Scarce Stilter]

Recorded just once in Latvia (Courland) by Gimmerthal in 1847, listed for Lithuania in Pakalniškis, 2006. *species inquirenda*

6—Haltere yellow; fore coxa clear yellow and simple; wing long, extending beyond the end of tergite 6.



***Micropeza corrigiolata* [Common Stilter]**

compared with *M. lateralis*: Smaller, mainly black species. Vertex and occiput black. Thorax practically entirely black. usually 2-4 pairs of longer setae on the metasternum; ♂ cercus usually yellowish, hypopygium mainly black; ♀ pleurae with a distinctive pattern, dark patches extending down the sternites, ovipositor sheath completely black ventrally. 5-6.5mm

—Haltere brown; fore coxa long and bulging, yellow with a proximal blackening and a distal cream patch; wing short, not quite reaching the end of tergite 6

Face black with white dusting by the eyes (which continues on to the genae). Metasternum with at most 1 pair of longer setae; ♂ cercus brown; ♀ pleural membrane with a distinctive colour pattern consisting of a continuous brown (burnt umber) stripe above a cream-coloured belly; ovipositor sheath yellowish brown ventrally



***Micropeza brevipennis* [Lucerne Stilter]**

7—Yellow/sienna + pale brown. Arista brown. Pleura with a long thin white diagonal stripe. ♂ S5 with a ventral tuft of long black bristles

Propleuron without ventral setae; scutellum at most medially with a brownish spot, otherwise yellow; abdominal tergites largely yellow/pale brown



***Micropeza angustipennis* [Pale Stilter]**

Countries surrounding the Black Sea (Steppic lowlands and hills)

—Mid-brown with some yellow. Arista white; propleuron with well developed ventral setae; scutellum almost completely brown; tergites dark brown with raw sienna hind margins

8—Upper half of occiput black with a central yellow patch extending horizontally from the eye. Antennal flagellum black.

Mesonotum brown (burnt sienna), 2 anterior thin black stripes & 2 posterior thin yellow stripes. Pleura with an upper golden yellow stripe, below this a burnt umber stripe and finally more golden yellow on the lower pleura and all coxae.



***Micropeza lateralis* [Broom Stilter]**

compared with *M. corrigiolata*: Larger, brown and sienna species. Vertex and occiput streaked and spotted with sienna. Side margins of thoracic disc, and lower part of pleurae sienna. ♂ hypopygium mainly sienna. 6 - 8.5mm

—Upper 2/3 of occiput black with variably sized streaks of colour extending up into the black from the pale genae. Antennal flagellum orange to dark.

Mesonotum black with no stripes. On the pleura the black fades through maroon to an upper golden yellow stripe, again fading through maroon to golden yellow on the lower pleura.

Coxae cream-coloured.



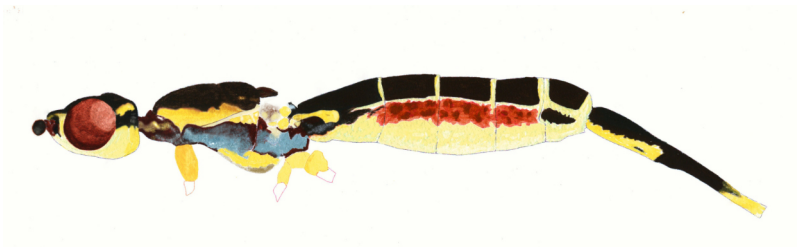
***Micropeza grallatrix* [Mediterranean Stilter]**

Southern parts of Mediterranean countries such as Portugal, Spain and Italy

The above key is devised primarily to aid identification from photographs. The hind femorae (where available for study) are illustrated at each couplet, for further illustrations consult micropezids.myspecies.info

Scarce material is scattered widely across various European museums and collections. Many thanks to Jens-Hermann Stuke for taking the trouble to photograph his specimen of *M. nigra*. The illustrations overleaf are based upon a range of photographic material, the paintings by the author are gouche & ink, retouched and refined in graphics applications.

Lateral aspects of European *Micropeza* species (females)



Broom Stilter
Micropeza lateralis



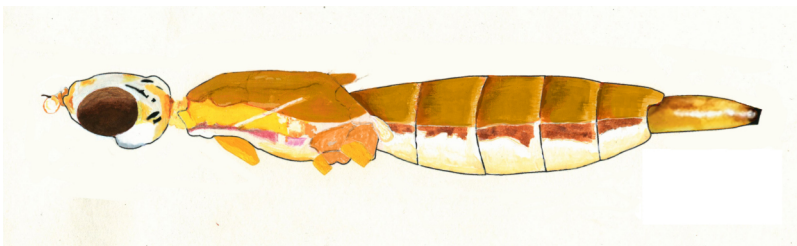
Lucerne Stilter
Micropeza brevipennis



Common Stilter
Micropeza corrigiolata



Mediterranean Stilter
Micropeza grallatrix



Pale Stilter
Micropeza angustipennis



Black Stilter
Micropeza nigra