

# Micropezids & Tanypezids

## Stilt & Stalk Fly Recording Scheme

Newsletter 4

Spring 2022

### Recording Scheme - News

#### Open Data updates: UK

The UK database on [NBN Atlas](#) has been updated in recent months. In August the number of Scheme records stood at 4073; it rose to 5386 in September. Spreadsheets submitted by scheme contributors since 2016 were processed and 526 records added. In June 2021 we gained access to the scans of Steve Falk's field note and survey folders (to 2014) and using the methods detailed at <https://tinyurl.com/7kfh5u5d> I was able to add a further 777.

#### Scheme Publications

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

The following preprints are now accessible ...

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

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

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

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

The above ResearchGate preprints have been read widely by researchers (over 500 times) and even cited once or twice.

#### Atlas, phenology & revised status

The UK Atlas has now been updated:

Sumner D.P. (2021). Biogeography, Status & Phenology of UK Micropezids & Tanypezids (Diptera, Nerioidae & Diopsoidea). Dipterists Forum Report: Stilt & Stalk Fly Recording Scheme, A(11 V1), 48.

<https://tinyurl.com/ve2f2wrx>

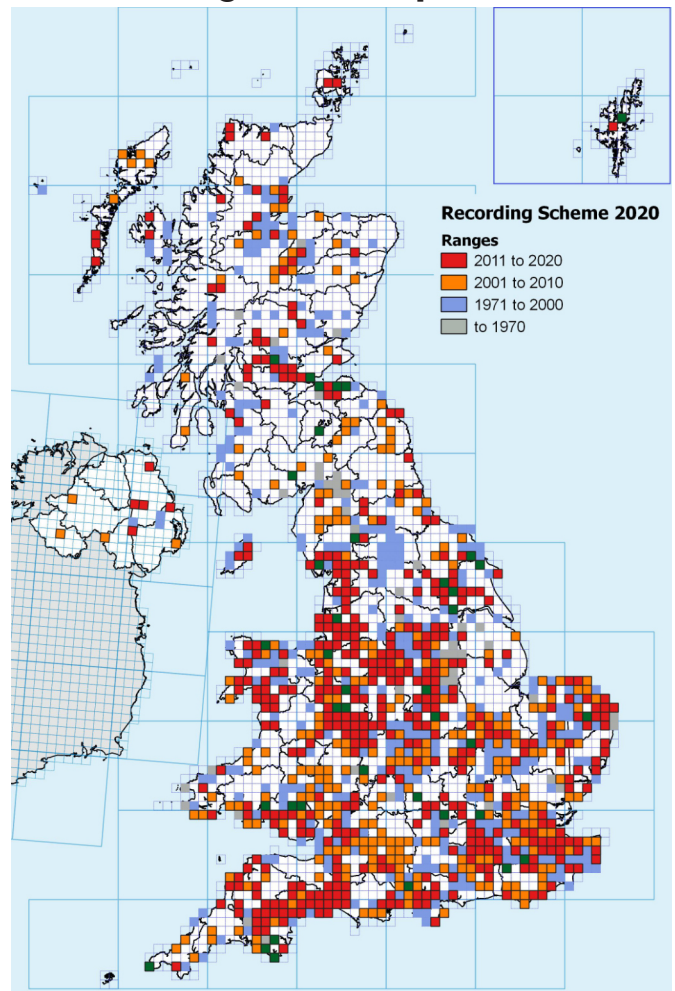
As regards UK status this qualifies as an assessment rather than a full IUCN revision. The analyses revise the status of a number of species, removing *Micropeza lateralis* & *Megamerina dolium* from the threat lists and downgrading the threat status of *Rainieria calceata* whilst indicating that the Scottish specialities *Cnodacophora styliifera* and *Strongylophthalmyia ustulata* are under-recorded.

Current UK distribution maps are to be found on the Scratchpad site.



European Harlequin (*Tanypeza longimana*) photo ©Barry Webb (on iRecord)

### UK Recording Scheme Open Data 2020



Status of records to 2020. All are publicly accessible through NBN Atlas. Dark green 10km squares are 2021 records (60), mainly through iRecord & iNaturalist. The colour patterns are indicative of changes in recorder effort over the decades, for example the blue and grey regions haven't been investigated (successfully) since last century.

**Contact the Recording Scheme if you've any more or simply add them to iRecord.**



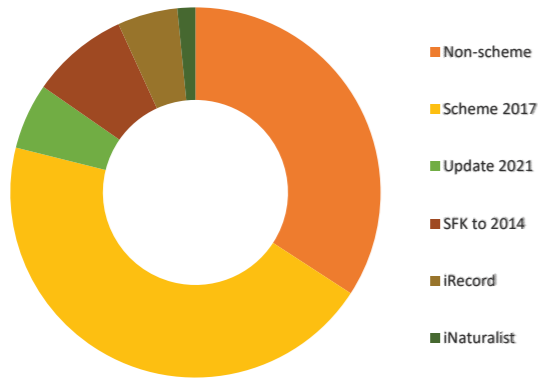
European Micropezids & Tanypezids at <http://micropezids.myspecies.info/>

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

Darwyn Sumner

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

**Recording: UK**  
Records breakdown



The above shows the source of the records used in this scheme's analyses (distribution maps, phenology etc..). The first four categories were present on [NBN Atlas](#) by September 2021. Non-scheme records (3119) are historic datasets added from various sources together with records which have not necessarily passed through this scheme's verification procedures. The scheme's records (4083) were updated in 2021 from records submitted (526) plus a digitisation project (777) as detailed on [NBN Atlas](#). Records from iRecord (480) and iNaturalist (143), all verified by this scheme's organiser, were added later. Despite careful verification, a good deal of editing and removal of invalid data was required in order to achieve satisfactory analyses.

**Verification**

The different means adopted by recorders in submitting records to this Recording Scheme each have their own benefits and provide different levels of networking.

**Traditional:** When this Recording Scheme was set up in 1999 it was supported by Dipterists Forum members who communicated by email and spreadsheet data. Most of the initial contributors still use this method and it forms the basis of the scheme's informal network.

**iRecord:** The shift in recorder's preferences becomes evident when examining the records posted to this online system. Some using this method are the traditional supporters, others casual or those who record across multiple taxa. Over the 2017 to 2020 period some 480 records were posted here, amounting to 1/3<sup>rd</sup> of the UK total during that period. The verification system is terrific, in particular the "plausible" option which I find much better than the yes/no consensus system in iNaturalist. The networking potential is good, recorders can be contacted if further enquiries are needed and some do respond to the verifier's comments.

**iNaturalist:** UK records are rising and the networking potential here is considerable. In particular, since it was set up as a European project, there has been much communication with contributors from abroad. The automated systems send records directly to GBIF and a mechanism by which UK records are placed on NBN Atlas is currently operational through iRecord.

**UK Status revision**

The updated dataset above was used to recalculate the status of the UK species. Full details were published (together with distribution maps and phenology) in November and are available as a preprint on ResearchGate at <https://tinyurl.com/33fk7aby>

**New UK species**

Roger Thomason added *Chamaepsila pectoralis* to the UK list with his report at <https://tinyurl.com/xjrperk> on Diptera.info where it was confirmed by Paul Beuk. Tony Irwin commented "The genus is in need of a thorough overhaul, going back to types where they exist, and probably using genomic characters as well. Having said that, I have no evidence to suggest that humeralis and pectoralis are not good species, so I would support adding pectoralis to the British list." So it was. Peter Chandler will be adding it to the revisions and Chris Raper added it to the UKSI. The record itself was added to NBN Atlas last autumn.



*Chamaepsila pectoralis* Graven, Shetland 2021-06-07 Roger Thomason

A summary of this species may be found at <https://micropezids.myspecies.info/taxonomy/term/112> and key papers are listed there, notably the following:

Shatalkin, A. I., & Merz, B. (2010). The Psilidae (Diptera, Acalyprata) of Switzerland, with description of two new species from Central Europe. *Revue Suisse de Zoologie*, 117(4), 771–800.

Wang, X. (1988). Determination tables of the Western Palaearctic Chamaepsila species (Diptera: Psilidae). *Stuttgart-Based Contributions to the Natural History*, 417(Series A), 1–13.

Tony Irwin remarks that "It does seem odd that the species hasn't been found on the British mainland yet" so would UK dipterists please check their material just in case.

**New European species**

More Psilidae have been found in Europe too. Kaj Winqvist is working on a *Chamaepsila* new to Finland (and Europe) whilst Jocelyn Claude, in addition to adding *Psila helvetica* to the French list is working on a number of *Chamaepsila* new to science. This work has focussed the attention of a number of experts on this genus with Jocelyn busying himself figuring genitalia. Maybe the outcome will be a much-needed revision. As Jindřich Roháček summarised recently "Any precision identification of species of this difficult genus will be great."

**Recording: Europe**

The objective to get records of species occurrences onto GBIF using data from published papers continues slowly. I have the records extracted into a spreadsheet, the current problem is the absence of a handful of taxa from the GBIF backbone taxonomy, they use [Catalogue of Life](#) as their main source. The list of planned work can be found on the [Datasets uploaded](#) page of this scheme's research Scratchpad.

**Denmark**

One example of a country-based online recording website: <https://www.naturbasen.dk/art/14104/neria-cibaria>

**Identification**  
**Psilidae**

Two recent keys are useful to have in your library:

1. Phil Withers & Jocelyn Claude, (2021) *Psilidae of France* (Diptera: Acalyprata): checklist and identification keys for genera and species.

<https://tinyurl.com/87c34yww>

2. Paul Beuk, Key: Psilidae

<https://tinyurl.com/2e6szjcr>

**Loxocerini**

There are consequently three keys available with which to identify the Loxocerini. The Summer 2008 key tried a novel approach based on characters observed on UK specimens, the Withers 2019 key was based on French material and the Beuk 2020 key on other European material. Only the Withers key contains figures, all of them line drawings from previous publications.

**Visual Guide to European Loxocerini**

The Loxocerini may be identified from some images provided they are of a sufficient quality and cover the necessary aspects. There are several examples on both iRecord and iNaturalist, a good range of species on the gallery of Diptera.info and choice examples on <https://micropezids.myspecies.info/>

To identify from photographs, which rarely show all the features necessary to work through keys, the approach is to narrow the choices by ruling out each of the species one by one:

1. *Loxocera hoffmanseggi* (not UK)



Black thorax + red abdomen (mostly). Antennae with arista placed anteriorly.

2. *Loxocera aristata* (including the melanic form *L.maculata*)



Pale marking on the lower part of the occiput (below the eye) confined to a small (genal) patch

The remainder have much larger genal patches, more than half of the lower occiput:

3. *Imantimyia albisetata*



Yellow to amber face (fades to black just below the antennae.) Humeri dark + scutellum pale (tan or amber.) Arista with distinct hairs (needs a clear photo.) Postgenal stripe present.

4. *Imantimyia fulviventris*



Atlantic Reed (*Imantimyia fulviventris*) by Geoff Foale (inset John Hallmén)

Black face. Humeri dark + scutellum pale. Arista with shorter hairs. Postgenal stripe absent.

Differentiating the above two relies either on characters rarely visible in photographs (detail of arista hairs or face colour below antennae) or on microscopical character on the occiput - a shimmer stripe on the lower occiput (the gena or "cheek")

Consequently it is not safe to identify the above two from most field photographs.

5. *Imantimyia sylvatica*



Humeri pale + scutellum pale (tan/yellow). Tan/yellow rather than amber in colouration, humeri tan/yellow, more or less pigmented tan/yellow markings on the frons above the antennae and a distinctive long black stripe on the thorax.

6. *Imantimyia nigrifrons*



**Humeri black + scutellum black.** Weakly, but clearly infuscated wing ribs. The hind tibia can also often be coloured brown in the middle parts (Hennig 1941). *I. nigrifrons* also has a very dark thorax compared to other *Loxocera*.

**Other guides**

The [FSC Identikit online guide](#) on the Scratchpad site may also prove valuable in narrowing down some of the Psilidae.

**Photography**

If you are fortunate enough to happen across one of these in the field then the best you might manage is one or two quick shots. Even the very best of these might not be enough to confirm their identity. An effective tactic is that of Malcolm Storey who gets a fresh specimen to his studio and photographs it from all angles. For this group it's the full-frontal head shot which helps greatly, so try to bag this aspect in the field if you can, perhaps netting it then holding it in one hand whilst snapping the face using the other. Then let it go.

**Verification**

Very few images posted on iNaturalist can be identified, mostly the best that can be achieved is the Genus *Loxocera* (iNaturalist doesn't recognise *Imantimyia* or the tribe Loxocerini). Some warrant the comment:

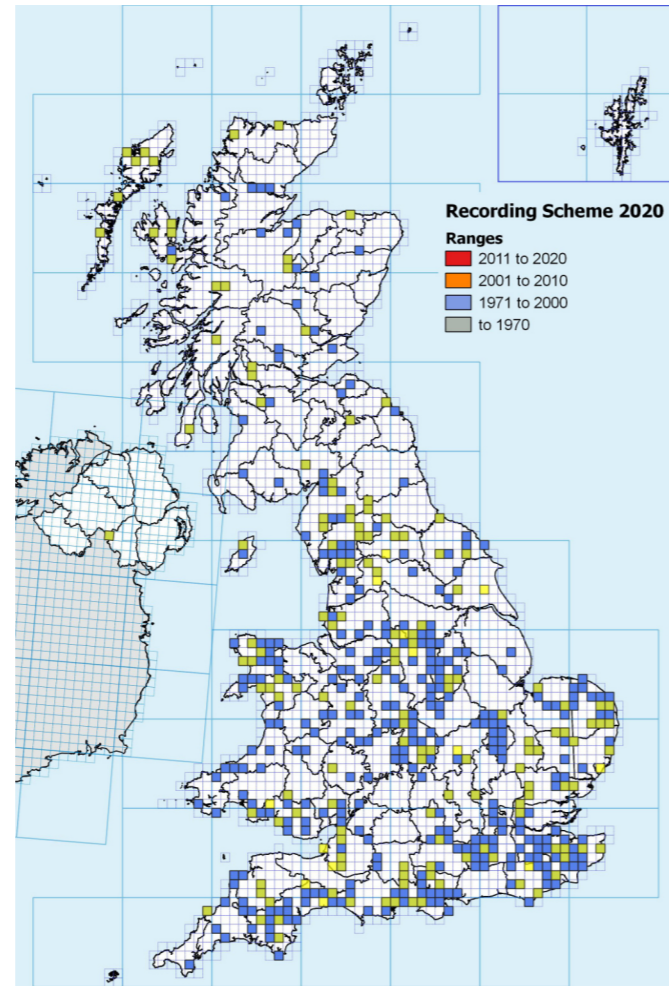
Either *Imantimyia albiseta* (<https://micropezids.myspecies.info/taxonomy/term/75>) or *I. fulviventris* (<https://micropezids.myspecies.info/taxonomy/term/76>)

To be certain which, the face below the antennae would need to be examined (yellow and black respectively)

Rarely *Loxocera hoffmanseggi* and *Loxocera aristata* get

posted there but *Loxocera albiseta* is the main one recorded. iRecord images can be similarly inconclusive but here the verifier can use the "plausible" option and add that same comment. Some then turn out to have been taken as specimens and so may readily be resolved using iRecord's notification system.

**UK Loxocerini Map**



Fully identified Loxocerini (blue) overlain with 161 records (yellow) which cannot be identified beyond *Loxocera* (Genus) via photographs. Overlaps appear green.

**iNaturalist project**



This Scheme's [iNaturalist project](https://www.inaturalist.org/projects/european-micropezids-tanypezids), set up in May 2020 at <https://www.inaturalist.org/projects/european-micropezids-tanypezids> goes from strength to strength. It now has 13 members, users signed up to keep an eye specifically on this group. By the end of the season the number of observations across Europe had risen from last year's 607 to 1100

Perhaps the project did encourage more recording. Around 20% of UK recording is now through this site. There has also

been a good deal of positive feedback occasioned by my habit of providing a link to each taxon on my Scratchpad site when confirming an identity. Hopefully contributors go and read that before confirming my ID.

I'm indebted to Sam Rees for showing an interest and helping to raise many to Research grade, a good example of the effectiveness of collaboration. Do participate by joining the project as a member, there are always many unconfirmed ("needs ID") records:

**Visual Guide to European Chylizinae**  
**Chylizinae**

The European fauna consists of 6 species in the Genus *Chyliza*: *C. annulipes*, *C. extenuata*, *C. leguminicola*, *C. leptogaster*, *C. nova* and *C. vittata*. They are all keyed in ...

Bygebjerg, R., Munk, T., & Elnif, J. (2011). *Chyliza leguminicola* Melander, 1920 (Diptera: Psilidae) new to the Palearctic fauna. *Entomologiske Meddelelser*, 79(2), 73–84.

... and also in Withers and Beuk where this group ("tailcoats") is arrived at at the start of the key, alongside the Loxocerini.

From photographs they may be narrowed down as follows:

1. *Chyliza leguminicola* (not UK but it is invasive)



Lupin Tailcoat (*Chyliza leguminicola*) by J. Elnif

Legs (femora) black.

2. *Chyliza annulipes*



Legs yellow, Femora with broad black rings

3. *Chyliza vittata*



Orchid Tailcoat (*Chyliza vittata*) by Kurt Holmqvist

Legs yellow. Femora without rings. Thorax mainly yellow

4. *Chyliza extenuata*



© Valter Jacinto

Legs yellow. Femora without rings. Thorax mainly black. Arista with dense black pubescence.

5. *Chyliza leptogaster*



Common Tailcoat (*Chyliza leptogaster*) by Dmitry Gavryushin

Legs yellow. Femora without rings. Thorax mainly black. Arista pubescence normal. Frons mainly black, females with second antennal segment partially brown.

6. *Chyliza nova*

[no reliable photograph known]

Legs yellow. Femora without rings. Thorax mainly black. Arista pubescence normal. Frons normally much yellowed, females with second antennal segment yellow.

To reliably differentiate *C. leptogaster* from *C. nova* requires microscopical examination or a very good photograph of the fore tibia of a male.

**Other guides**

The keys above provide further detail. The [FSC Identikit online guide](#) on the Scratchpad site may also prove valuable.

**Acknowledgements**

Many thanks to the photographers whose work features in the above guides. Many of them post regularly on Diptera.info and on iNaturalist, others provide images as an educational resource on their own websites (e.g. Flickr & Bioimages.)

The Scratchpad research site also has many images kindly licensed by various photographers.

# European Micropezids & Tanypezids

## Neria femoralis

There have been a number of misidentification problems arising from this species. The clearest illustration is that of Lithuanian photographer Tomas Tarvainis (who makes it clear that he's not an entomologist) on his site at <https://tyt.lt/about.php> where two images of *Neria cibaria* are misidentified as *Neria femoralis*.

It's a tricky one to resolve so I'm cautious about all reports of *Neria femoralis*. A handful of UK records are being checked - they've been uploaded to NBN Atlas as "unconfirmed" and also some records which were posted on Waarneming.nl to finish up as images on GBIF don't conform fully with Czerny's description (below.)

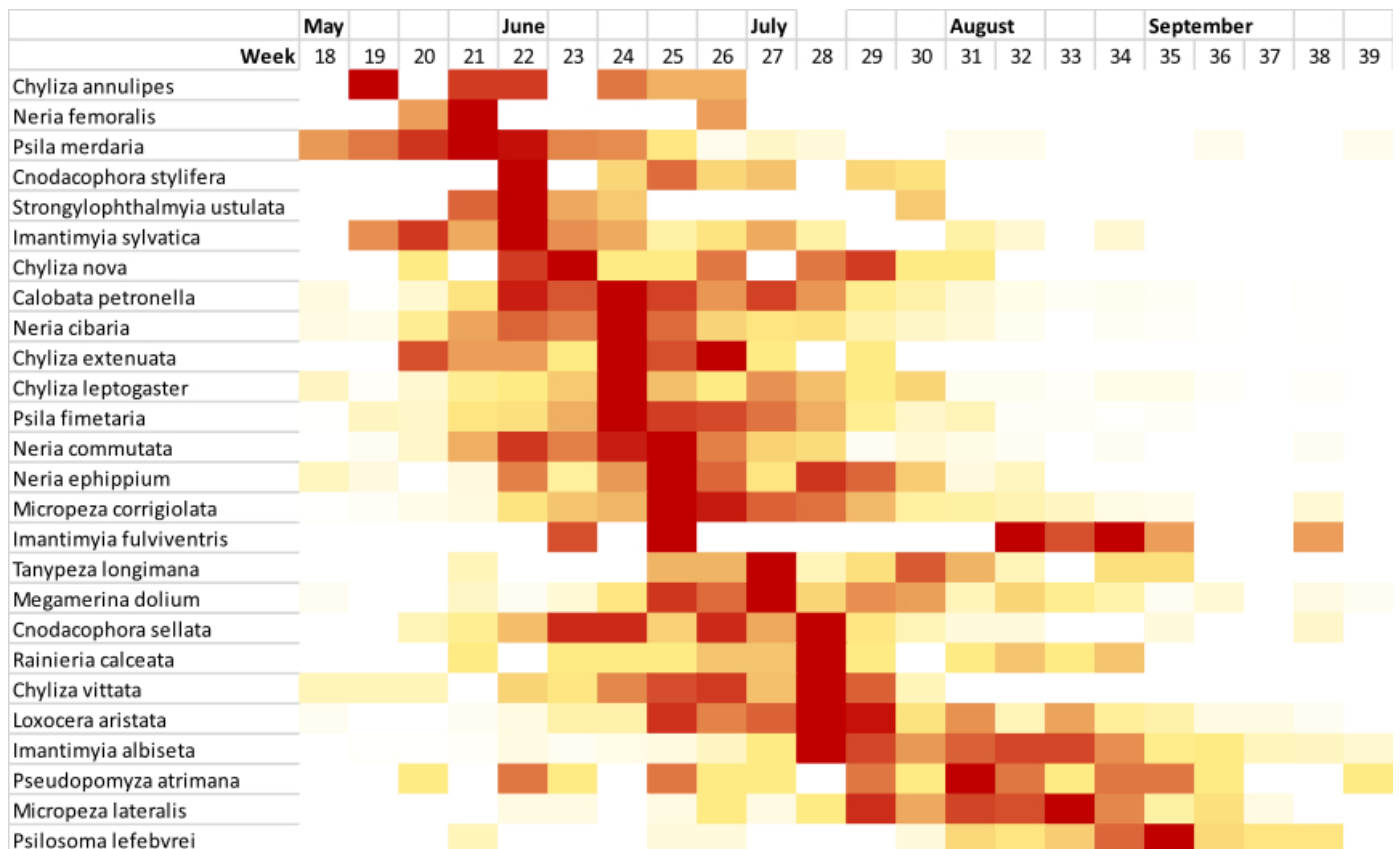
I discussed this species with Jindřich Roháček who tells me that it is relatively easy to find in the Czech Republic and kindly sent me an image. However the image (opposite) posted by Sokolkov on iNaturalist shows most clearly the head pattern features described by Czerny, 1930: **Male: frons narrowed anteriorly, frontal stripe rusty yellow, black around ocelli, in front of ocelli with a pointed whitish dusted triangle, reaching middle of frons. Eye margins whitish dusted anteriorly, lateral eye ridges and occiput black, with white dusting**



A case perhaps of the species not conforming to the published description. Anna Kreffer's sequence of images at <https://tinyurl.com/54k69f86> look fine, but no dusted triangle.

I tried again in 2021 to find this at its UK site in Cheshire. The rather cool spring however seems to have delayed its emergence and nothing was found.

## Chronology



Timeline of UK flight times of Micropezids & Tanypezids (except *Chamaepsila*) listed in order of earliest peak occurrence (red.) Dates as week number (*sensu* MS Excel.) For fantail phenology charts see Sumner, 2021