

# Sciomyzidae & Phaeomyiidae

## Sciomyzidae Recording Scheme

Newsletter 7 Autumn 2021

Founded June 1983 by Ian McLean

### Recording Scheme - News

#### Update

As co-organiser of this UK Recording Scheme, led by Ian McLean, I've received a good deal of information and data since I took on the role in 2008 (Bulletin 66). Though it has been 11 years since the last newsletter, the brief note on the scheme in DF Bulletin 91 was an indication to several of us that there was a need for a more detailed account. This 2021 update has contributions from myself, Matt Harrow and Steve Falk.

#### Identification Keys

Three books provide the backbone to European species identification:

Rozkošný R, 1984. The Sciomyzidae (Diptera) of Fennoscandia and Denmark.

Vala J-C, 1989. Diptères Sciomyzidae Euro-Méditerranéens.

Rivosecchi L, 1992. Diptera Sciomyzidae.

The above were used as the basis for a key of UK species (Sumner, 1998) and in a Dipterists Forum workshop (*idem*, 2004.) Workshops in later years too as people kept taking Sciomyzids for me to identify regardless of the main topic.

Stuart Ball and Ian McLean subsequently began work on a more definitive key, taking into account additions to the UK fauna and culminating in a 2014 workshop and key (Ball, 2017) This key, revised in early 2017, also contains distribution maps and full species descriptions and is available to registered Dipterists Forum members.

Both are workshop keys, the use of copyrighted material therein being acceptable for teaching purposes.

Darwyn Sumner (Scheme co-organiser)

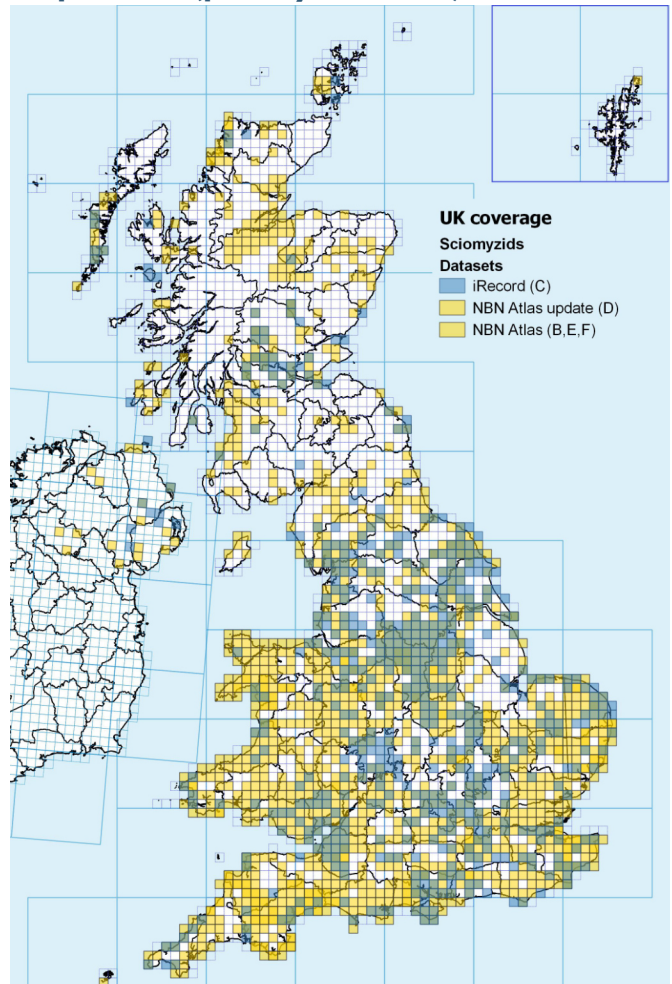
### Recording: UK

#### Summary of datasets

By publishing datasets to NBN Atlas, information regarding occurrences become available without restriction to all. In particular current distribution maps may be accessed through NBN Atlas. Whilst no Recording Scheme can undertake to



#### Open Data (publicly available), March 2021



Status of records on NBN Atlas and on iRecord as of March 2021. The objective is to make all the records publicly accessible through NBN Atlas.

Yellow = NBN Atlas (30,299 which includes a recent Scheme batch of 6,530. Recent additions from DF Field Weeks and a further 883 Scheme update)

Blue = verified iRecord occurrences (2,884) - on their way to NBN Atlas

Green = where both overlap. **Grand total 34,543**

Contact us if you've any more or simply add them to iRecord.



Sciomyzidae Recording Scheme at <https://www.dipterists.org.uk/snail-killing-flies-scheme/home>

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

Darwyn Sumner, Matt Harrow & Steve Falk



always be up-to-the-minute with such uploads, typically they may catch up every couple of years or so. More frequently when arrangements are in place to allow verified iRecord occurrences to be fed directly into a scheme's Atlas dataset.

The following list indicates which batches of records exist, most of which may be found as Open Data on the NBN Atlas:

- A. Pre-2007 occurrence records (Part 1) in the possession of Stuart Ball who liaised with the scheme to collate these in Recorder 2002 and used them for analysis in the 2014 workshop and 2017 key where they are fully detailed.
- B. Spreadsheets submitted to DS from 2007 to 2016 were processed and uploaded to [NBN Atlas](#) in 2021 as a partial dataset (identified on the Atlas as Part 2.) 6530 records
- C. Verified iRecord submissions: scheduled to be added as a separate NBN Atlas dataset (request to BRC 19/03/2021)
- D. Spreadsheet datasets submitted to the Recording Scheme (DS) since 2014: submitted for addition to B. 883 records
- E. [Older NBN datasets](#) - from a variety of historic sources such as DF field weeks or agency records
- F. [Current surveys](#) placed on the Atlas arising from LERC work, expeditions such as DF Field Weeks and others
- G. iNaturalist. The NBN Atlas upload methodology is currently unclear but it presently only contains a handful of records, some of which have also been submitted through iRecord (C.) and to the Recording Scheme (D.)

The practise of publishing these datasets provides the means by which scheme organisers answer queries. To those using NBN Atlas for research, education and other purposes, the above list should give some indication as to how comprehensive your NBN Atlas search will be. Absent from your searches will be some of A. and all of G. at the time of writing, whilst C. & D. will be available when they have been fully processed.

**Open Data:** Maps & phenology in this newsletter use B., C., D., E., & F. These are to be found on NBN Atlas where you can generate your own maps.

## Getting stuff identified

1. Use the galleries to get a rough idea - especially Steve Falk's at <https://tinyurl.com/y3ndju78>
2. If yours is an image then geotag it and post to iRecord or iNaturalist, both of which expect you to have some sort of idea of what it is.
3. Use the keys, then when you're certain, ensure the record is submitted to the Recording Scheme

A lot of them are hard to do from images alone. Run a filter on iNaturalist (Sciomyzidae|UK) and you'll see the easy ones plus a lot of *Tetanocera spp.* (which cannot be done from just pictures)

### iRecord

**iRecord** submissions are the currently preferred method of sending records to the Recording Scheme. Though both of us are set up as verifiers, Matt Harrow carries out the bulk of the verifying on behalf of the scheme. It is planned that future Spreadsheets will be dealt with by uploading them there. A request was made of BRC to arrange for verified records on the BRC silo to be transferred to NBN Atlas under the title "Sciomyzid Recording Scheme - iRecord" and thus become Open Data. Look for your stuff there.

### iNaturalistUK

Images posted here get checked occasionally, don't hold your breath though, some cannot be done from pictures. They are however scrutinised by overseas experts.

Darwyn Sumner

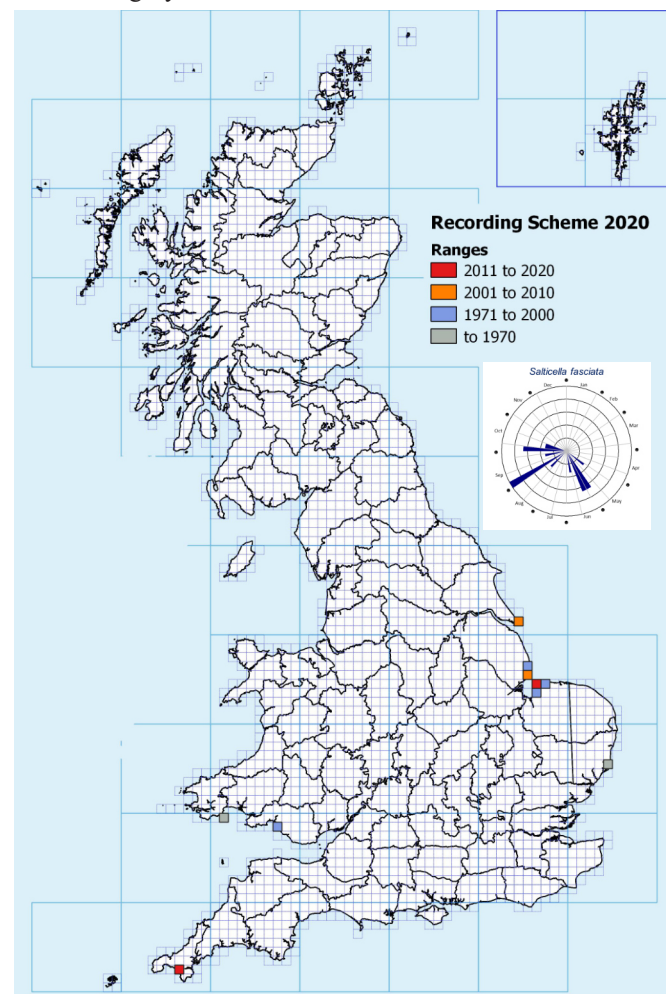
## Species accounts

### 1. BAP species

#### *Salticella fasciata* distribution & phenology

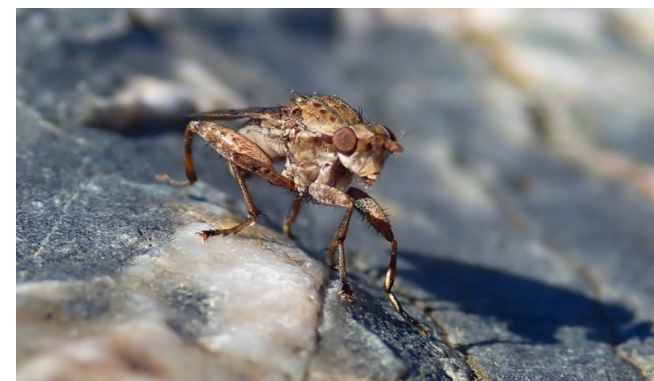
This scheme's flagship species.

The only Sciomyzid amongst Dipterist Forum's BAP "adopt a species" is *Salticella fasciata* (Bulletin 65, 2008.) Accordingly this is one of the species to which we pay special attention. It gets a brief note in Falk's IUCN account (2017) who refers to Shirt, 1987 so it's only got the old Red Data Book status. From the data we have now (35 records), we can assign it an IUCN category.



The two pre-1970 sites are Tenby and Aldeburgh. Sand-dune systems are present at the former (Penally Dunes), for the latter the location is imprecise. The Glamorganshire site, Kenfig Dunes is very extensive and has been searched unsuccessfully by MH. The core site in the east is Holme Dunes in Norfolk. Whilst this system transitions to salt marsh further east, to the west coastal defences may have harmed the habitat by stabilising dunes; Snettisham has been searched for many years without success. The metapopulation here clearly disperses across the Wash though there have been no recent records for the Lincolnshire coast (Skegness, Gibraltar Point to Spurn Head).

The Cornish site is Loe Bar, first recorded there in 2005.



*Salticella fasciata* at Loe Bar in Cornwall, September 2020 [Matt Harrow]



Images from France posted on iNaturalist by Jean Marc Ruiz

Darwyn Sumner (BAP adopter, 2008)

### 2. Most recognisable species

The four species on pages 4 & 5 are the most photographed + identifiable as indicated by iNaturalist submissions. Other species such as *Tetanocera* may be the most photographed and though attempts have been made (Bulletin 90) they cannot be identified from images alone.

### 3. Selected species

The six species on page 6 are a random selection. All photographs by Steve Falk, maps and phenology by D. Sumner from Open Data.

For the 2017 figures on the remaining species see Ball, 2017.

## Status

A simplified method of assessing IUCN status was discussed in Bulletin 83 (p9). The actual method is quite complex (see their 2012 handbook) but the availability of good data regarding occurrences throughout well-defined time periods is an excellent starting point. By separating into decade groups, occurrence quantities can be used to approximately assign IUCN categories (Sumner, 2017) If unacceptable for formal designations the method is at least capable of detecting broad trends, even if that trend is obscured by variations in recording effort and chance encounters of scarcer species. The following table is derived from an analysis of **Open Data** on 11 selected species.

The last status assessment for Sciomyzidae in the UK was in Falk, 1992. They were not included in the later 2016 review (Falk et al. 2016) which assessed many other Acalypterates. This latter document however provided information as to how provisional regional IUCN categories may be assigned.

### Area of occupancy

Area of occupancy is but one of several formal criteria used to determine Red List Categories. A useful starting point however is when Open Data provides that information in the form of "occupied grid squares" which can be determined through GIS (as used to produce the maps) as follows:

Taxon	Pre 2001	2001 to 2010	2011 to 2020	Status
	number of unique hectads (10km squares)			[Falk, 1992]
<i>Salticella fasciata</i>	10	4	2	[vulnerable]
<i>Coremacera marginata</i>	101	137	265	Least Concern (LC)
<i>Trypetoptera punctulata</i>	144	113	121	Least Concern (LC)
<i>Sepedon spegea</i>	145	87	122	Least Concern (LC)
<i>Limnia unguicornis</i>	125	145	127	Least Concern (LC)
<i>Dichetophora obliterata</i>	35	35	33	
<i>Dictya umbrarum</i>	34	14	16	[notable]
<i>Ectinocera borealis</i>	3	5	2	[rare] → vulnerable
<i>Elgiva cucularia</i>	89	50	35	
<i>Hydromya dorsalis</i>	216	116	110	Least Concern (LC)
<i>Psacadina zernyi</i>	12	13	9	[vulnerable] → near threatened

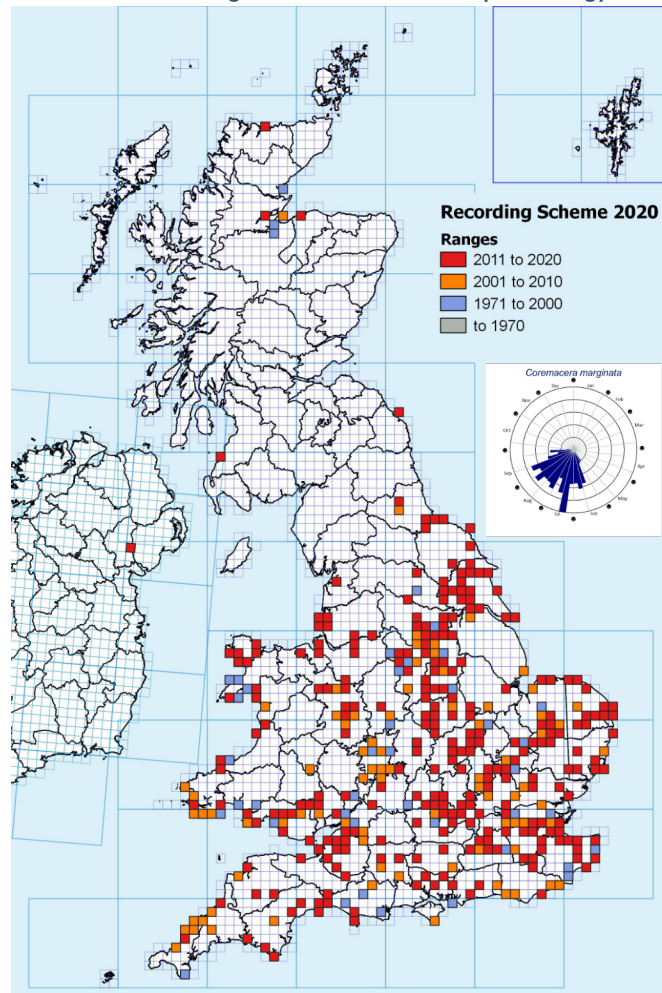
In a considerable oversimplification of the guidelines, taxa may be considered **Critically Endangered** if the population size reduction is  $\geq 90\%$  over a previous period of 10 years, **Endangered**  $\geq 70\%$  and **Vulnerable**  $\geq 50\%$ . A full assessment would require a detailed study of all the criteria (and more data than that available through Open Data alone) but the AO figures above suggest that both *Salticella fasciata* and *Ectinocera borealis* may be categorised as **Vulnerable** and that *Psacadina zernyi* is no longer within those three threatened categories but may qualify as **Near Threatened**.

The above is a small sample based upon an as yet incomplete set of data. The formal IUCN categories for the Sciomyzidae are scheduled to be fully reassessed in 2022.

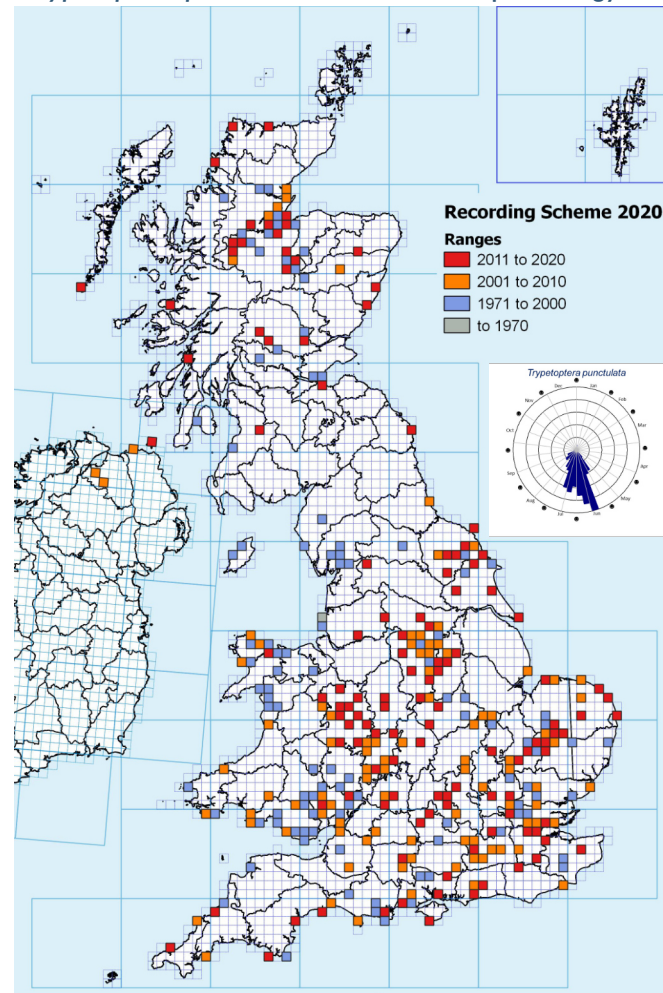
Steve Falk discusses the availability of records in each of his papers on the subject of status. The emergence and subsequent cooperation of the Recording Schemes was key to the work then, the emergence and population of NBN Atlas by those Schemes with Open Data is key now.



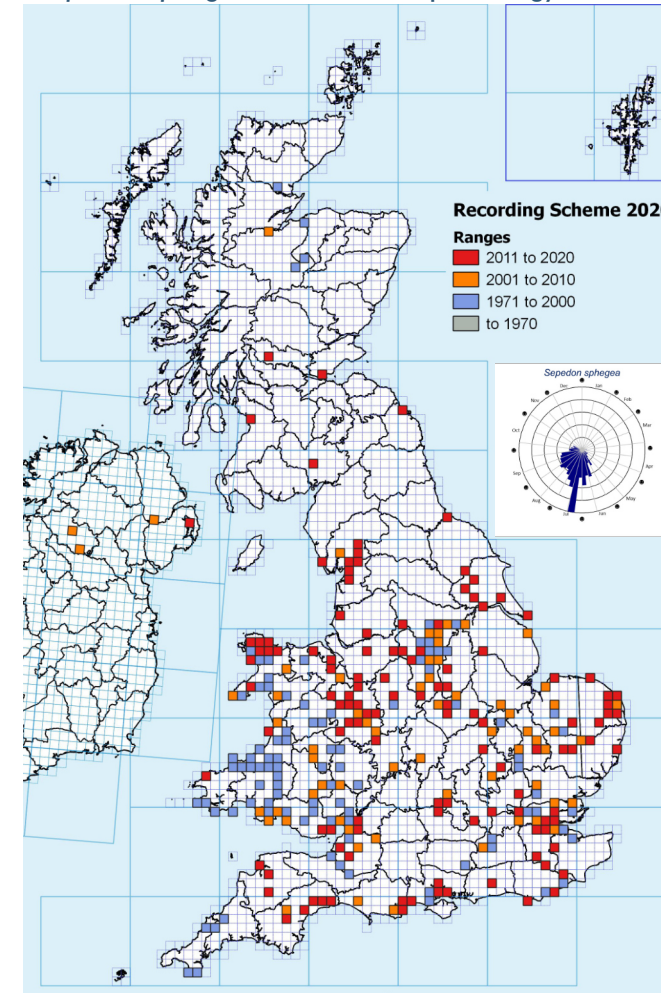
*Coremacera marginata* distribution & phenology



*Trypetoptera punctulata* distribution & phenology



*Sepedon spegea* distribution & phenology



*Limnia unguicornis* distribution & phenology

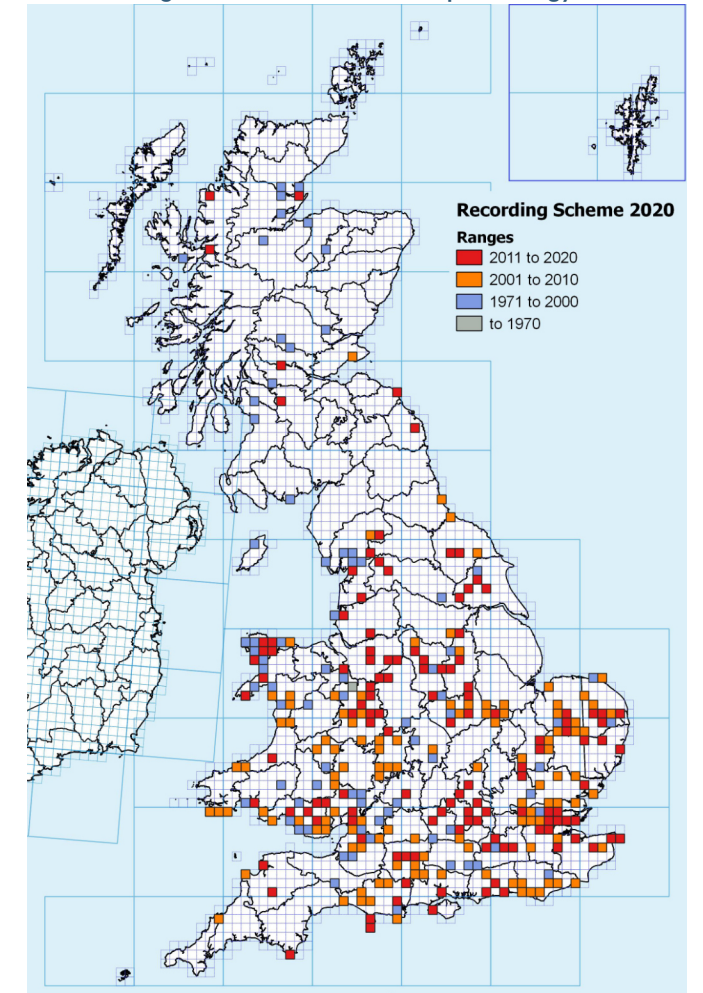


Image by Steve Falk (<https://tinyurl.com/3j565ca6>)



Image by Steve Falk (<https://tinyurl.com/8f52pvrz>)



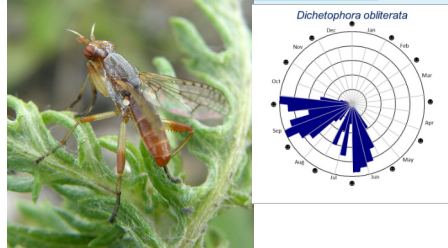
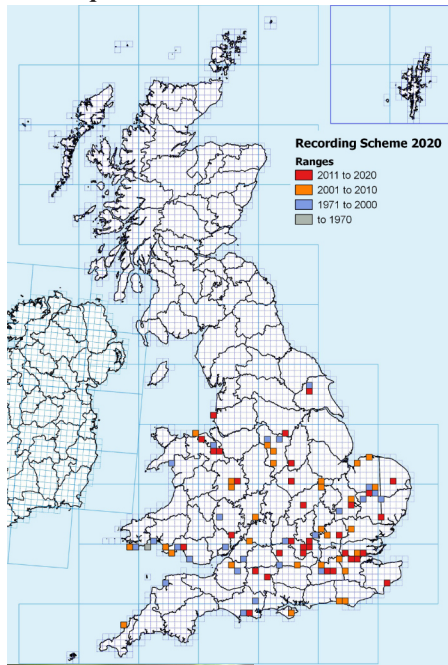
Image by Steve Falk (<https://tinyurl.com/ch99fm29>)



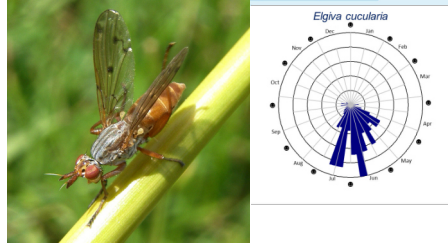
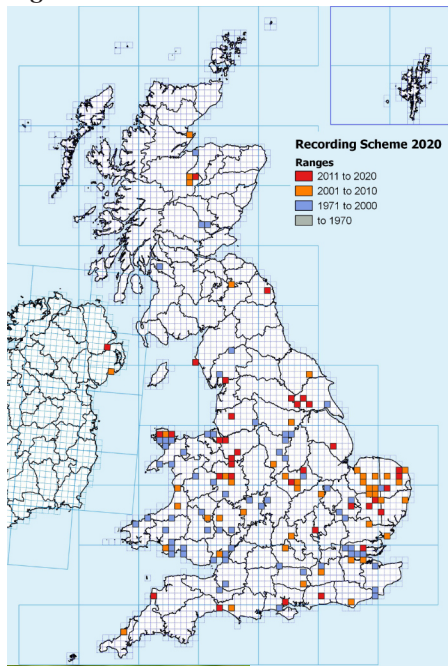
Image by Steve Falk (<https://tinyurl.com/wv7mkrw5>)



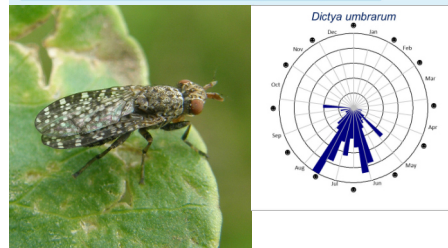
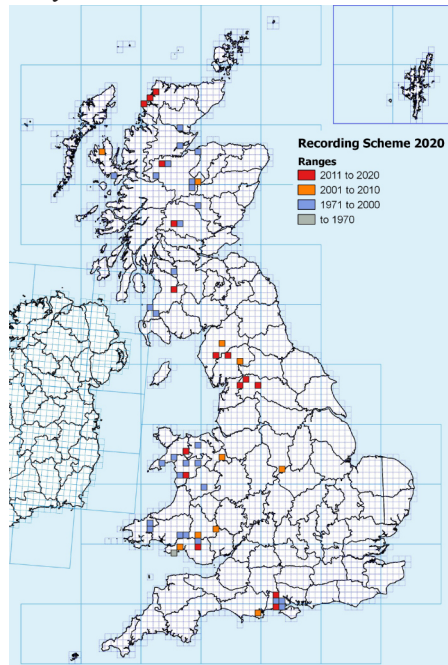
*Dichetophora obliterata*



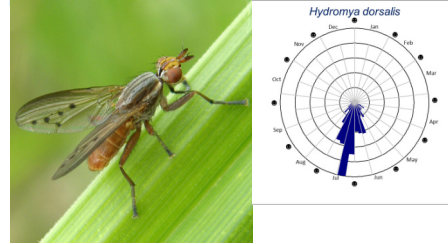
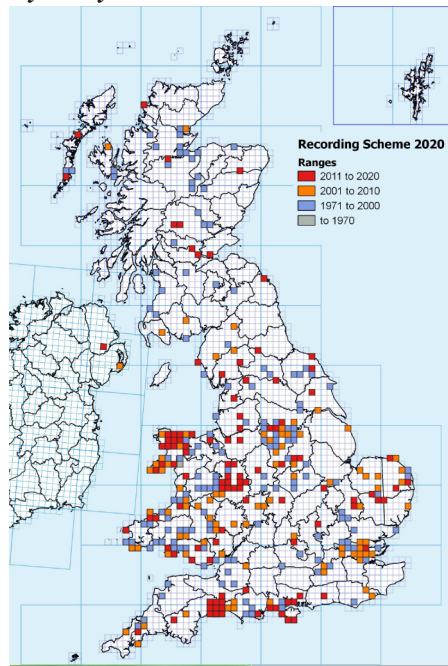
*Elgiva cucularia*



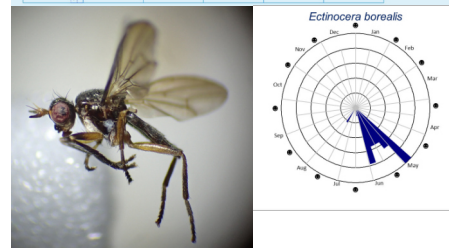
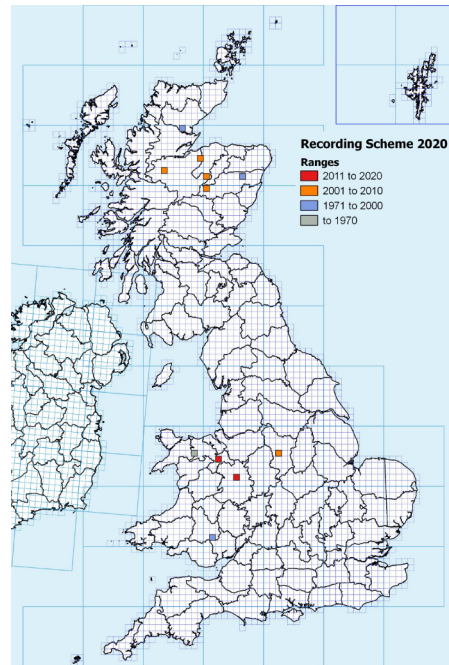
*Dictya umbrarum*



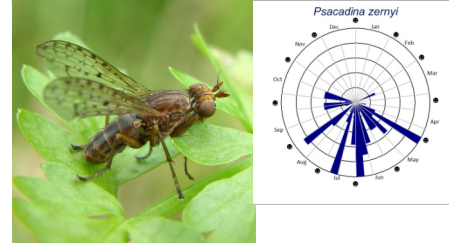
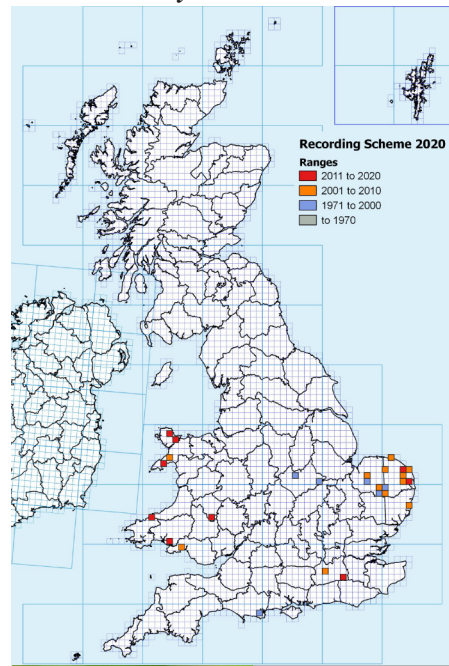
*Hydromya dorsalis*



*Ectinocera borealis*



*Psacadina zernyi*



## Recording: Europe

### iNaturalist project

The above is the header of the opening page of an [iNaturalist project](https://www.inaturalist.org/projects/european-sciomyzids) set up in 2020 <https://www.inaturalist.org/projects/european-sciomyzids>

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 <1,273 observations, rising as follows by June 2021:

- Observations 1,435
- Species 55
- Identifiers 209
- Observers 617
- Members 4

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:

- *Coremacera marginata*
- *Trypetoptera punctulata*
- *Euthycera cribrata (not UK)*
- *Sepedon sphegea*
- *Limnia unguicornis*

The project is not managed, though observations are checked by European dipterists.

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, many are first time identifications so unless the original contributor confirms an 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

Begun by Jonas Mortelmans <http://sciomyzidae.myspecies.info/> this is currently unpopulated in respect of taxa. Ambitious in geographic scope the site has not been worked upon since 2015. A fresh start for UK or Europe may be called for.

Jonas is active on iNaturalist however where he is the top identifier by far. He gives his interests as "Sciomyzidae - snailkilling flies" nothing else.

## UK Sciomyzid Galleries

Popular subjects amongst many photographers, you'll find Malcolm Storey's focus-stacked pictures on Bioimages at <https://tinyurl.com/nbzdzhaz> and on several Flickr sites such as the regionally based one of [Ian Andrews](#).

The most comprehensive UK collection is that of Steve Falk at <https://tinyurl.com/y3ndju78> who additionally provides identification tips and habitat pictures.

If you've a good image organiser at home (e.g. iMatch) then there's nothing to stop you downloading your own personal set to help you identify them, they're all either CC-BY or [CC-BY-NC](#) and have been uploaded by these photographers for that very purpose.

## Publications

### Keys

Ball, S. G. 2017. Sciomyzidae (Diptera).

### Newsletters

The previous 6 newsletters are available at:

<http://www.micropezids.myspecies.info/node/344#Sciomyzidae>

### References

- Falk, S. J. 1992. A review of the scarce and threatened flies of Great Britain, Res. Surv. Nat. Conserv. Nature Conservancy Council, Peterborough.
- Falk, S. J., J. W. Ismay, and P. J. Chandler. 2016. A Provisional Assessment of the Status of Acalyprtratae flies in the UK, Nat. Engl.
- IUCN. 2012. IUCN Red List Categories and Criteria, IUCN Bull. Gland, Switzerland.
- Sumner DP, 2017. Status assessment. Bulletin of the Dipterists Forum 83, 9.
- Sumner, D. P. 2018. Phenology and Polar Area Charts (Fantail Phenology). Dipterists Forum Rep. C 5: 8.



## UK Sciomyzid Checklist

The following list is taken from the current UKSI certified by Chris Raper as current in late 2020. For spreadsheet use download his UKSI list and use that to record, the terms will then match up to those recognisable by NBN Atlas.

Stuart Ball treats the checklist in more detail and more taxonomically correct, the following is simply alphabetical. Stuart provides comprehensive details for each taxon; note that items on his Contents pages (1 to 3) are interactive, no need to scroll through the entire 150 pages.

Vernacular names have been assigned by Steve Falk, to discover these, go to his Flickr site. He missed a chance for a theme here, I'd have gone for famous detectives and murderers.

Highlighted taxa in the following list are hyperlinked to Steve Falk's Flickr species accounts where you can view more images of them, see identification tips and habitats and links to NBN Atlas distributions:

### Sciomyzidae

<b>Anticheta</b>	<b>Haliday, 1838</b>		
<a href="#"><i>Anticheta analis</i></a>	(Meigen, 1830)	Rare	
<a href="#"><i>Anticheta atriseta</i></a>	(Loew, 1849)		
<a href="#"><i>Anticheta brevipennis</i></a>	(Zetterstedt, 1846)	Vulnerable	
<a href="#"><i>Anticheta obliuosa</i></a>	Enderlein, 1939	Vulnerable	
<b>Colobaea</b>	<b>Zetterstedt, 1837</b>		
<a href="#"><i>Colobaea bifasciella</i></a>	(Fallén, 1820)	Notable	
<a href="#"><i>Colobaea distincta</i></a>	(Meigen, 1830)	Notable	
<a href="#"><i>Colobaea pectoralis</i></a>	(Zetterstedt, 1847)	Vulnerable	
<a href="#"><i>Colobaea punctata</i></a>	(Lundbeck, 1923)	Notable	
<b>Coremacera</b>	<b>Rondani, 1856</b>		
<a href="#"><i>Coremacera marginata</i></a>	(Fabricius, 1775)		
<b>Dichetophora</b>	<b>Rondani, 1868</b>		
<a href="#"><i>Dichetophora finlandica</i></a>	Verbeke, 1964	Rare	
<a href="#"><i>Dichetophora obliterata</i></a>	(Fabricius, 1805)		
<b>Dietya</b>	<b>Meigen, 1803</b>		
<a href="#"><i>Dietya umbrarum</i></a>	(Linnaeus, 1758)	Notable	
<b>Ditaeniella</b>	<b>Sack, 1939</b>		
<a href="#"><i>Ditaeniella grisescens</i></a>	(Meigen, 1830)	Notable	
<b>Ectinocera</b>	<b>Zetterstedt, [1838]</b>		
<a href="#"><i>Ectinocera borealis</i></a>	Zetterstedt, [1838]	Rare	
<b>Elgiva</b>	<b>Meigen, 1838</b>		
<a href="#"><i>Elgiva cucularia</i></a>	(Linnaeus, 1767)		
<a href="#"><i>Elgiva sollicita</i></a>	(Harris, [1780])		
<b>Euthycera</b>	<b>Latreille, 1829</b>		
<a href="#"><i>Euthycera fumigata</i></a>	(Scopoli, 1763)		
<b>Hydromya</b>	<b>Robineau-Desvoidy, 1830</b>		
<a href="#"><i>Hydromya dorsalis</i></a>	(Fabricius, 1775)		
<b>Ilione</b>	<b>Haliday in Curtis, 1837</b>		
<a href="#"><i>Ilione albiseta</i></a>	(Scopoli, 1763)		
<a href="#"><i>Ilione lineata</i></a>	(Fallén, 1820)		
<b>Limnia</b>	<b>Robineau-Desvoidy, 1830</b>		
<a href="#"><i>Limnia paludicola</i></a>	Elberg, 1965		
<a href="#"><i>Limnia unguicornis</i></a>	(Scopoli, 1763)		
<b>Pherbellia</b>	<b>Robineau-Desvoidy, 1830</b>		
<a href="#"><i>Pherbellia albocostata</i></a>	(Fallén, 1820)		
<a href="#"><i>Pherbellia annulipes</i></a>	(Zetterstedt, 1846)	Notable	
<a href="#"><i>Pherbellia argyra</i></a>	Verbeke, 1967	Vulnerable	
<a href="#"><i>Pherbellia brunnipes</i></a>	(Meigen, 1838)	Notable	
<a href="#"><i>Pherbellia cinerella</i></a>	(Fallén, 1820)		
<a href="#"><i>Pherbellia dorsata</i></a>	(Zetterstedt, 1846)	Notable	
<a href="#"><i>Pherbellia dubia</i></a>	(Fallén, 1820)		
<a href="#"><i>Pherbellia goberti</i></a>	(Pandellé, 1902)		
<a href="#"><i>Pherbellia griseola</i></a>	(Fallén, 1820)	Notable	

<a href="#"><i>Pherbellia knutsoni</i></a>	Verbeke, 1967	Rare	
<a href="#"><i>Pherbellia nana</i></a>	(Fallén, 1820)	Notable	
<a href="#"><i>Pherbellia pallidiventris</i></a>	(Fallén, 1820)		
<a href="#"><i>Pherbellia punctata</i></a>	(Fabricius)		
<a href="#"><i>Pherbellia rozkosnyi</i></a>	Verbeke, 1967		
<a href="#"><i>Pherbellia schoenherri</i></a>	(Fallén, 1826)		
<a href="#"><i>Pherbellia scutellaris</i></a>	(von Roser, 1840)		
<a href="#"><i>Pherbellia sordida</i></a>	(Hendel, 1902)		
<a href="#"><i>Pherbellia stackelbergi</i></a>	Elberg, 1965		
<a href="#"><i>Pherbellia ventralis</i></a>	(Fallén, 1820)		
<b>Pherbina</b>	<b>Robineau-Desvoidy, 1830</b>		
<a href="#"><i>Pherbina coryleti</i></a>	(Scopoli, 1763)		
<b>Psacadina</b>	<b>Enderlein, 1939</b>		
<a href="#"><i>Psacadina verbekei</i></a>	Rozkosný in Knutson Berg, 1975	Rozkosný & Notable	
<a href="#"><i>Psacadina vittigera</i></a>	(Schiner, 1864)	Rare	
<a href="#"><i>Psacadina zernyi</i></a>	(Mayer, 1953)	Vulnerable	
<b>Pteromicra</b>	<b>Lioy, 1864</b>		
<a href="#"><i>Pteromicra angustipennis</i></a>	(Staeger, 1845)		
<a href="#"><i>Pteromicra glabricula</i></a>	(Fallén, 1820)	Notable	
<a href="#"><i>Pteromicra leucopeza</i></a>	(Meigen, 1830)	Vulnerable	
<a href="#"><i>Pteromicra pectorosa</i></a>	(Hendel, 1902)	Vulnerable	
<b>Renocera</b>	<b>Hendel, 1900</b>		
<a href="#"><i>Renocera pallida</i></a>	(Fallén, 1820)		
<a href="#"><i>Renocera striata</i></a>	(Meigen, 1830)	Notable	
<a href="#"><i>Renocera strobilii</i></a>	Hendel, 1900		
<b>Salticella</b>	<b>Robineau-Desvoidy, 1830</b>		
<a href="#"><i>Salticella fasciata</i></a>	(Meigen, 1830)	Vulnerable	
<b>Sciomyza</b>	<b>Fallén, 1820</b>		
<a href="#"><i>Sciomyza dryomyzina</i></a>	Zetterstedt, 1846	Vulnerable	
<a href="#"><i>Sciomyza simplex</i></a>	Fallén, 1820	Notable	
<a href="#"><i>Sciomyza testacea</i></a>	Macquart, 1835		
<b>Sepedon</b>	<b>Latreille, 1804</b>		
<a href="#"><i>Sepedon sphegea</i></a>	(Fabricius, 1775)		
<a href="#"><i>Sepedon spinipes</i></a>	(Scopoli, 1763)		
<b>Tetanocera</b>	<b>Duméril, 1800</b>		
<a href="#"><i>Tetanocera arrogans</i></a>	Meigen, 1830		
<a href="#"><i>Tetanocera elata</i></a>	(Fabricius, 1781)		
<a href="#"><i>Tetanocera ferruginea</i></a>	Fallén, 1820		
<a href="#"><i>Tetanocera freyi</i></a>	Stackelberg, 1963	Rare	
<a href="#"><i>Tetanocera fuscinervis</i></a>	(Zetterstedt, [1838])		
<a href="#"><i>Tetanocera hyalipennis</i></a>	von Roser, 1840		
<a href="#"><i>Tetanocera montana</i></a>	Day, 1881		
<a href="#"><i>Tetanocera phyllophora</i></a>	Melander, 1920	Notable	
<a href="#"><i>Tetanocera punctifrons</i></a>	Rondani, 1868	Notable	
<a href="#"><i>Tetanocera robusta</i></a>	Loew, 1847		
<a href="#"><i>Tetanocera silvatica</i></a>	Meigen, 1830		
<b>Tetanura</b>	<b>Fallén, 1820</b>		
<a href="#"><i>Tetanura pallidiventris</i></a>	Fallén, 1820		
<b>Trypetoptera</b>	<b>Hendel, 1900</b>		
<a href="#"><i>Trypetoptera punctulata</i></a>	(Scopoli, 1763)		

### Phaeomyiidae

<b>Pelidnoptera</b>	<b>Rondani, 1856</b>		
<a href="#"><i>Pelidnoptera fuscipennis</i></a>	(Meigen, 1830)		
<a href="#"><i>Pelidnoptera nigripennis</i></a>	(Fabricius, 1794)	Notable	