

Checklist of the Diptera of Finland

by

Jere Kahanpää, Jukka Salmela



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CHECKLIST OF THE DIPTERA OF FINLAND

by Jere Kahanpää, Jukka Salmela

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Fax: +359-2-870-42-82

info@pensoft.net

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Checklist of the Diptera (Insecta) of Finland: an introduction and a summary of results

Jere Kahanpää¹

¹ *Finnish Museum of Natural History, Zoology Unit, P.O. Box 17, FI-00014 University of Helsinki, Finland*

Corresponding author: *Jere Kahanpää* (jere.kahanpaa@helsinki.fi)

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Abstract

Nearly thirty-five years have passed since Hackman published his “Check list of the Finnish Diptera” (1980). The number of true flies (Diptera) known from Finland has increased by more than two thousand species since then. At the same time, hundreds of erroneous records have been recognized and purged from the checklist.

ZooKeys issue 441 provides a new checklist of the Diptera species of the Republic of Finland. This introductory paper presents the rationale behind the project, provides technical documentation on the checklist format and sources used, and summarizes the results. The remaining papers in this issue cover one or more Diptera families in detail.

Two electronic appendices are provided: supporting data (additional references to first published records and the previous checklist) and a complete list of Finnish Diptera taxa in Darwin Core compliant format for easy computer access and processing.

The new checklist records 6920 fly species from Finland, 2932 belonging to the nematoceran or lower flies and 3989 to the suborder Brachycera. The changes since 1980 are most prominent in the Lower Diptera. For example, more than 400 non-biting midges (Chironomidae) have been added since 1980, and the number of moth flies (Psychodidae) known from Finland has more than tripled. Among the larger families, large increases in known Finnish species are also seen in Cecidomyiidae (161% increase), Pipunculidae (98%), and Chironomidae (90%).

Keywords

Finland, Diptera, flies, biodiversity, faunistics

Introduction

The Diptera is a large order of holometabolous insects commonly known as flies and midges. With some 150,000 described extant species (Pape et al. 2011) and many more still undescribed, the Diptera is one of the most successful groups of animals by any measure. Flies and midges are also an important part of food webs in most land and freshwater ecosystems, particularly so in the arctic and alpine zones (Mani 1968, Pape 2009a). The economic relevance of flies is also considerable (see Pape 2009b for a recent summary): they are key pollinators and biological control agents, but also – less beneficially – important vectors of human and domestic animal diseases.

Why a new checklist?

The history of Finnish Diptera catalogs starts with Evert J. Bonsdorff (1861, 1866), who reviewed a part of the brachyceran fauna known from the country at the time, totaling 657 species. Systematic maintenance and publishing of faunistic data began with the start of Wolter Hellén's amazing series of summary papers covering new country records (and deletions) of all Insecta and running uninterrupted for six decades (Hellén 1922, 1926, 1931, 1936, 1941, 1946, 1952, 1956, 1961, 1966, 1971, 1976). Richard Frey, Lauri Tiensuu, and Ragnar Storå (1941) published the first complete list of Diptera recorded from Finland. It included 3824 species.

The era of Hellén culminated in a revised list of Finnish Diptera by Walter Hackman (1980a, 1980b, 1980c) in cooperation with Bernhard Lindeberg and Rauno Väisänen. The number of species had increased to 4852. Hans Silfverberg succeeded Hellén as the author of regular updates on additions and deletions to the Finnish insect fauna (Silfverberg 1981, 1986, 1991, 1996, 2007, 2012).

Nearly thirty-five years have passed since Hackman's checklist. The number of Diptera species known from Finland has increased by more than two thousand species since 1980 (an increase of more than 40%). Several hundred erroneous records have been recognized during the same period. Many new names have been introduced and others found invalid, incorrectly used, or synonymized. The Diptera fauna of the whole Palaearctic Region has been catalogued (Soós and Papp 1984–1993) and many new local, regional, or global checklists have been published.

At this point, an updated checklist is urgently needed to provide a current reference to the Diptera fauna of Finland as a fresh starting point for further studies into the taxonomy, ecology, and other aspects of flies in Northern Europe.

Methods and format

Definition of a checklist

There is no universally accepted definition for an entomological checklist. The word is often used for lists of species with more information than merely valid names, but without comprehensive details on nomenclature or distribution and incomplete literature references. This new checklist of Finnish Diptera falls into category 5 on the comprehensiveness scale of Thompson and Knutson (1987). It does include full names with authorships and some but not all synonyms. Some literature references are provided in an Suppl. material 2.

National insect checklists have traditionally included the species recorded at least once from the country. Exotic imports without locally reproducing populations are usually excluded, but vagrants are included. This is by no means the only possible approach: the latest Danish list (Petersen and Meier 2001) use a predictive approach: it lists not only the species actually recorded from the country, but also those that are likely to be present based on the fauna of neighboring countries. The latter method works best when the fauna of the surrounding areas is at least as well known as the study area.

Taxonomic, geographical, and temporal limits

This checklist covers the Diptera fauna of the Republic of Finland. Only species recorded at least once within the current (*i.e.* post-1944) borders are included.

Many species were originally reported from Finland on the basis of specimens collected from areas ceded to Russia in 1944. If no reliable records (preferably voucher specimens) from within the current borders of the country exist, species were excluded from the checklist. In some cases – *e.g.* the muscid *Coenosia comita* (Huckett, 1936) – it has been impossible to determine whether the purported Finnish collecting localities fall within the current borders of the country. These species are indicated with a question mark on the checklist and are usually accompanied by a comment in the Notes section of the relevant paper.

No fossil or subfossil records were considered during the preparation of the checklist. Nationally extinct species are included. In practice, the oldest collected Diptera specimens from Finland are from the early 19th century, so all of the species in this checklist have been found in the country at least once during the last two hundred years.

Data sources and validation

Draft checklists for each family were created in the latter part of 2012 by combining data from the most recent checklist of the Finnish fauna of the family in question, the Palaearctic Catalog (Soós and Papp 1984–1993), Fauna Europaea (Beuk and Pape

2012), Silfverberg's updates to Hackman's checklist and references therein, other relevant scientific literature, and the Finnish Insect Record Database (Finnish Museum of Natural History 2013). From here onwards, the individual authors of each checklist paper were responsible for data validation.

For a great majority of families, the next step was examining the major Diptera collections in Finland (see the Acknowledgments). Fortunately, these collections have voucher specimens for most Diptera species reported from the country. If no recently identified specimens from the country could be found, the reliability of the record was judged by section authors based on details provided in the literature. For example, the record of *Alliopsis longiceps* (Ringdahl, 1935) from Finland was rejected. While Ringdahl correctly recorded this species from Finland in 1935, the type location ("Kuusamo bei Paanajärvi") is now Russian territory, and no later observations have been published.

Exceptions to the procedure include Trichoceridae, Ceratopogonidae, Cecidomyiidae (subfamily Cecidomyiinae), and Phoridae (genus *Megaselia* Rondani, 1856), for which the checklists are largely based on a critical literature review. For more details on sources and validation, see the introductions and notes of individual checklist papers.

Checklist structure and presentation

The new checklist of the Diptera of Finland is presented in three formats: a series of papers each covering one or more families, a comma separated values (CSV) file with the full taxon list, and a PDF (portable document format) file with literature references for species records. The latter two are included as electronic appendices to this paper.

All checklist papers follow the same general format. An introduction to the families covered is followed by a table or list of number of species recorded from the world, Europe, and Finland. An estimate of the faunistic level of knowledge is also given on a simple three-step scale (poor–average–good). This estimate is admittedly very subjective, being based on individual authors' judgment. The following factors were considered: the number of species known from Finland in comparison with neighboring countries, taking into account known habitat preferences, etc., of absent species; the number of specialists who have worked with Finnish fauna; the number of publications on the Finnish fauna; and the quantity and quality of identified material collected from Finland.

The Checklist section of each paper starts with the systematic position of the family or families treated. As an example, the checklist of lauxanoid flies starts with:

suborder Brachycera Macquart, 1834
clade Eremoneura Lameere, 1906
clade Cyclorrhapha Brauer, 1863
infraorder Schizophora Becher, 1882
clade Muscaria Enderlein, 1936
parvorder Acalyptratae Macquart, 1835
superfamily Lauxanoidea Macquart, 1835

The family-level classification used follows mostly Marshall (2012), with exceptions noted in the Introductions of individual papers. The presentation order of subfamilies, tribes, genera, and subgenera can be either alphabetical or systematic depending on the author’s preference. Species are always listed alphabetically within a genus or subgenus.

Each species record starts with the name of the taxon, the author’s name, and the year of description. Doubtful records are indicated with a question mark (?) before the species name. The valid name may be followed by one or more additional names used for the same taxon. These names can be younger synonyms, preoccupied names, misidentifications, or common misuses in Finnish or international literature. As an example, the following entry lists three additional names used for *Rhamphomyia trilineata*.

Rhamphomyia trilineata Zetterstedt, 1859
 = *sulcatina* Collin, 1926
 = *tibialis* auct. nec Meigen, 1822
 = *propinqua* misid.

R. sulcatina Collin is a younger synonym of *R. trilineata*. The name *R. tibialis* Meigen was erroneously used for this species by Frey (1956) and others; the genuine *R. tibialis* of Meigen has not been found in the Nordic countries. Frey et al. (1941) misidentified this species as *R. propinqua* de Meijere (in reality a junior synonym name for *R. sulcata* Meigen).

Table 1 lists abbreviations used in the checklist papers.

The checklist section is followed by a list of species not included on the checklist for various reasons. Excluded species comprise species recorded only from areas ceded to Russia before 1945, exotic species occasionally imported to Finland by man without locally reproducing populations, records based on misidentifications, etc. The Notes section presents authors’ comments on individual taxa.

Table 1. Common abbreviations used in the checklist papers.

Abbreviation	Word or term	Interpretation
aff.	<i>affinis</i>	affined to, near
auct. nec	<i>auctorum, nec</i>	wrong interpretation, literally ‘of authors, not’
cf.	<i>confer</i>	compare with (may be identical with)
coll.	collective	collective name for sister species not easily separable by morphology
emend.	emendation	an intentional alternative spelling
misid.	misidentified	
nom. dubium	<i>nomen dubium</i>	a name with uncertain meaning
nom. nudum	<i>nomen nudum</i>	a name without a proper scientific definition
pr.	<i>prope</i>	near
preocc.	preoccupied	preoccupied by an older homonymous name
sg.	subgenus	
sp.	species	
suppr.	suppressed	a name made unavailable by an ICZN decision
var.	variety	a described variety

Discussion

Table 2 presents a summary of the results for each family of Diptera recorded from Finland, which includes the number of species known from the country now; in the previous checklist (Hackman 1980a, 1980b, 1980c); and the difference between the two checklists in species counts and as a fraction of the fauna known in 1980.

The Diptera has traditionally been split into two suborders, Nematocera and Brachycera. It is now generally agreed that while Brachycera is a monophyletic lineage, Nematocera is not (see Yeates et al. 2007 and references therein). The Brachycera may have evolved from a bibionomorphan ancestor, but this has so far proved difficult to confirm (Lambkin et al. 2013). The systematic order of Table 2 follows Marshall (2012), with one exception: Conopoidea is given superfamily status. Families are listed alphabetically within each superfamily.

Two nematocerous families dominate by absolute numbers of species: the non-biting midges (Chironomidae) with 780 species, and the true fungus gnats (Mycetophilidae, 691 spp.). These two families also show the largest number of new species reported since 1980 (369 and 260 species respectively). Hoverflies (Syrphidae, 362 spp.) is the largest brachyceran family, followed closely by tachinid parasitic flies (Tachinidae, 319 spp.). The largest absolute increases are seen in Tachinidae (118 spp.) and Anthomyiidae (112 spp.). The relative number of moth fly (Psychodidae) species has more than tripled since Hackman's checklist, mostly due to the work of Jukka Salmela. Among the larger families, major increases are also seen in the Pipunculidae (98% increase), Cecidomyiidae (161%), and Chironomidae (90%).

Most Diptera families show a decreasing trend in the number of species with latitude in Europe, but some are genuinely more diverse in the boreal zone (see Kjærandsen et al. 2007). The number of species known from Finland compares favorably with the results from neighboring countries (see Table 3). With 6920 species, Finland has the highest reported Diptera diversity among the Nordic countries. Only Germany (9544 species, Schumann 2009) and the Czech Republic (7917 spp., Jedlička et al. 2009) of all the North and Central European countries report significantly higher national Diptera faunas. This must, however, be at least partially attributed to differences between surveying intensity and the history of various countries. Most countries have only a few (if any) active dipterologists. Up until the last decade, access to the taxonomic literature required for Diptera identification was restricted to those working in close cooperation with major taxonomic institutes.

The number of species present in an area does usually increase with the size of the area (see Ulrich and Buszko 2003 for an example involving European insects). Peterson and Meier (2001) presented a species-area curve (of type IV, see Scheiner 2003) for Diptera species of European countries. Figure 1, based on Table 3, is an updated version of their figure. Two simple models (linear and logarithmic) were fitted to the data using least squares fits. One should, however, not draw too many conclusions from these models: the true number of Diptera species present in each country is likely to be significantly larger than the known number of species. Furthermore, large – or at

Table 2. Number of species recorded from Finland for each Diptera family. Systematic order follows Marshall (2012).

	Family	Finland 2014 species # with and without doubtful records	Hackman (1980) species # including doubtful records	increase in species # spp.	%
LOWER DIPTERA (NEMATOCERAN FLIES)					
Tipulomorpha					
	Tipuloidea				
	Cylindrotomidae	7	5	2	40%
	Limonidae	196	144	52	36%
	Pediciidae	19	13	6	46%
	Tipulidae	114–115	98	16	16%
	Trichoceridae	15–17	13	2	15%
Psychodomorpha					
	Psychodidae	61–63	14	47	336%
Psychopteromorpha					
	Psychopteridae	7	6	1	17%
Culicomorpha					
	Culicoidea				
	Chaoboridae	8	8	0	0%
	Culicidae	38	37	1	3%
	Dixidae	16	7	9	129%
Chironomoidea					
	Ceratopogonidae	97	69	28	41%
	Chironomidae	780	411	369	90%
	Simuliidae	56	35	21	60%
	Thaumaleidae	1	0	1	–
Bibionomorpha					
	Anisopodoidea				
	Anisopodidae	7	5	2	40%
	Bibionidea				
	Bibionidae	17	13	4	31%

	Family	Finland 2014 species # with and without doubtful records	Hackman (1980) species # including doubtful records	increase in species # spp.	%
	Canthyloscidae	3	3	0	0%
	Mycetobiidae	1	1	0	0%
	Pachyneuridae	1	1	0	0%
	Scatopsidae	30	26	4	15%
Sciaroidea					
	Bolitophilidae	21	17	4	24%
	Ceatomyiidae	355–356	136	219	161%
	Diadocidiidae	5	3	2	67%
	Ditomyiidae	2	1	1	100%
	Keroplattidae	46–47	37	9	24%
	Mycetophilidae	691–692	431	260	60%
	Sciaridae	337	207	130	63%
	Sciarosoma	1	0	1	–
BRACHYCERA					
lower Brachycera					
Tabanomorpha					
	Xylophagoidea				
	Xylophagidae	5	4	1	25%
	Rhagionoidea				
	Athericidae	1	1	0	0%
	Rhagionidae	16–17	14	2	14%
	Tabanoidea				
	Tabanidae	38–39	37	1	3%
	Stratiomyoidea				
	Stratiomyidae	29	28	1	4%
	Xylomyiidae	1	1	0	0%
Asilomorpha					
	Asiloidea				
	Asilidae	35	35	0	0%
	Bombyliidae	18–19	22	-4	-18%

	Family	Finland 2014 species # with and without doubtful records	Hackman (1980) species # including doubtful records	increase in species # spp.	%
	Mythicomyiidae	1	1	0	0%
	Scenopinidae	3	2	1	50%
	Therevidae	17	20	-3	-15%
	unplaced in Asilomorpha				
	Acroceridae	5	5	0	0%
	Empidoidea				
	Atelestidae	2	1	1	100%
	Brachystomatidae	4	4	0	0%
	Dolichopodidae	260	219	41	19%
	Hybotidae	143-144	132	11	8%
	Empididae	172	154	18	12%
	Itaphila group	3	4		-25%
higher Brachycera, Cyclorhapha					
	Phoroidea				
	Opetidae	1	1	0	0%
	Lonchopteridae	8	3	5	167%
	Phoridae	224-234	202	22	11%
	Platypezidae	39	20	19	95%
	Syrphoidea				
	Pipunculidae	107	54	53	98%
	Syrphidae	362	271	91	34%
	Conopoidea				
	Conopidae	19	19	0	0%
	Diopsoidea				
	Psilidae	29	26	3	12%
	Tanypezidae	1	1	0	0%
	Strongylophthalmyiidae	2	2	0	0%
	Megamerinidae	1	1	0	0%

	Family	Finland 2014 species # with and without doubtful records	Hackman (1980) species # including doubtful records	increase in species # spp.	%	
Nertoidea	Micropezidae	6	5	1	20%	
	Pseudopomyzidae	1	1	0	0%	
Tephritoidea	Eurygnathomyiidae	1	1	0	0%	
	Lonchaeidae	41–44	37	4	11%	
	Neortophiliidae	2	0	2	–	
	Pallopteridae	13	10	3	30%	
	Piophilidae	15	13	2	15%	
	Platystomatidae	2	2	0	0%	
	Tephritidae	69	61	8	13%	
	Ulididae	16	14	2	14%	
	Lauxanoidea	Chamaemyiidae	27–28	16	11	69%
		Lauxaniidae	45	42	3	7%
Sciomyzoidea	Coelopidae	1	1	0	0%	
	Dryomyzidae	5	3	2	67%	
	Heterocheilidae	1	1	0	0%	
	Phaemyiidae	2	2	0	0%	
	Sciomyzidae	73–74	68	7	10%	
	Sepsidae	32	24	9	38%	
	Opomyzoidea	Agromyzidae	280–281	221	58	26%
		Anthomyzidae	15	12	3	25%
		Asteidae	6	5	1	20%
		Aulagastridae	2	1	1	100%
Clusiidae		12	10	2	20%	
Odiinidae		5	5	0	0%	
Opomyzidae		16	13	3	23%	

Family	Finland 2014 species # with and without doubtful records	Hackman (1980) species # including doubtful records	increase in species # spp.	%
Periscelididae	4	3	1	33%
Carnioidea				
Acartophthalmidae	3	3	0	0%
Canacidae	1	1	0	0%
Carnidae	13	12	1	8%
Chloropidae	150	91	59	65%
Milichidae	12–13	11	2	18%
Sphaeroceroidae				
Chyromyidae	4	4	0	0%
Heleomyzidae	61	53	8	15%
Sphaeroceridae	118	97	21	22%
Ephydroidea				
Braulidae	1	1	0	0%
Camillidae	3	3	0	0%
Diastatidae	10	5	5	100%
Drosophilidae	67	51	16	31%
Ephydriidae	112	106	6	6%
Hippoboscoidea				
Hippoboscidae s. lat. incl. Nycteribiidae	12	12	0	0%
Muscoidea				
Anthomyiidae	289	177	112	63%
Fanniidae	61	40	22	55%
Muscidae	307–309	253	54	21%
Scathophagidae	85–86	83	2	2%
Oestroidea				
Calliphoridae	45	36	9	25%
Oestridae	8–9	8	0	0%
Rhinidae	0–1	1	0	0%
Rhinophoridae	5	4	1	25%

	Family	Finland 2014 species # with and without doubtful records	Hackman (1980) species # including doubtful records	increase in species # spp.	%
		64	58	6	10%
	Sarcophagidae				
	Tachinidae	319	201	118	59%
Nematoceran, total		2932–2942	1741	1191	67%
Brachycera, total		3989–4015	3166	823	26%
Diptera, total		6920–6956	4907	2013	41%

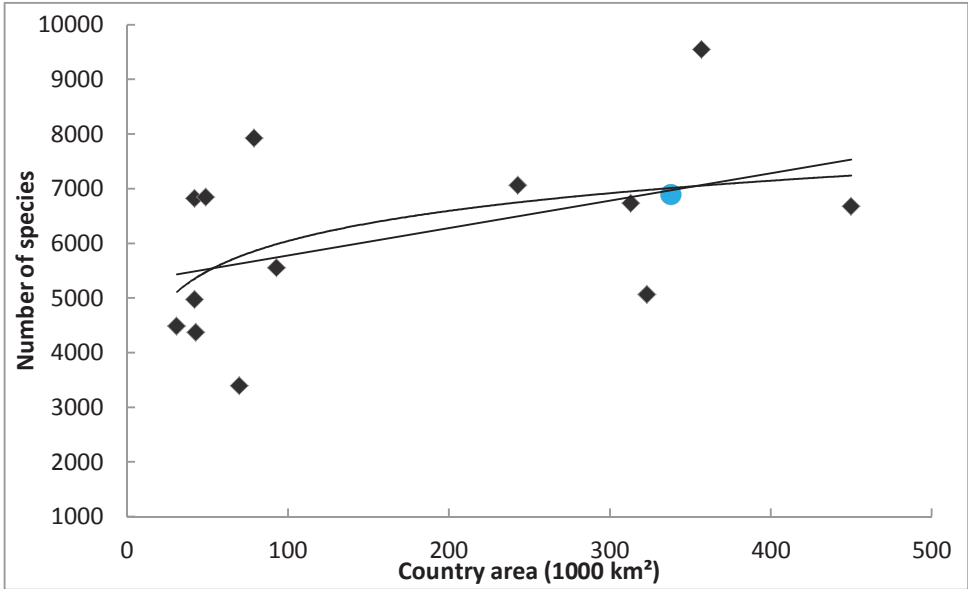


Figure 1. The species-area curve for some Northern, Western and Central European countries based on Table 3, excluding the Baltic states (see also Fig. 1 in Petersen and Meier 2001). Data for Finland is marked by a circle, other countries by rectangles. The two lines show linear and logarithmic least-squares fit models for the data.

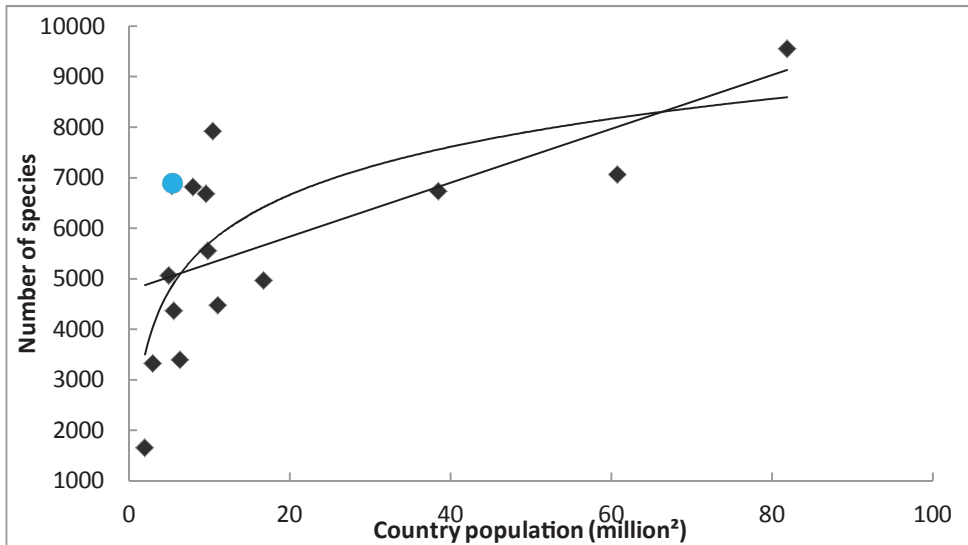


Figure 2. The species-population curve for some Northern, Western and Central European countries based on Table 3. Data for Finland is marked by a circle, other countries by rectangles. The two lines show linear and logarithmic least-squares fit models for the data.

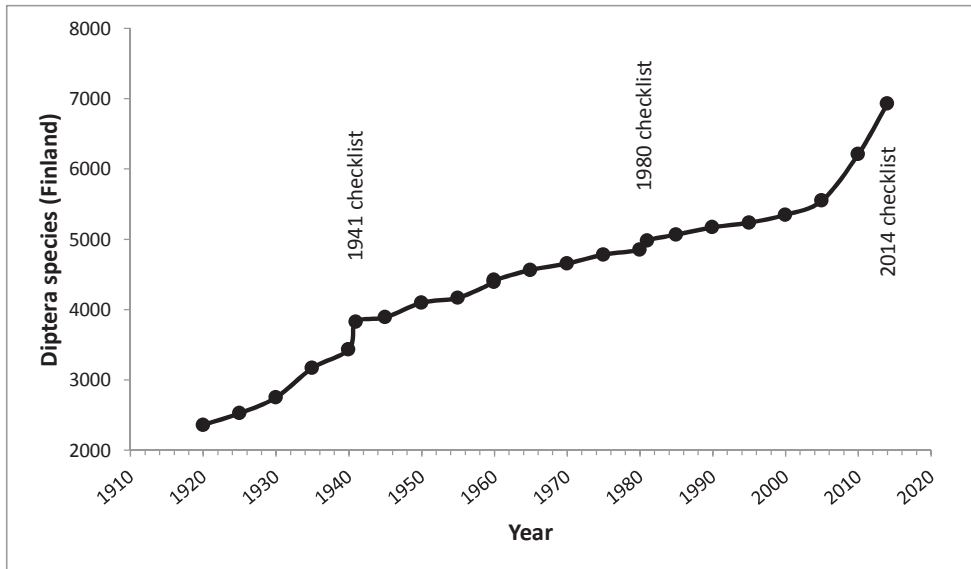


Figure 3. Total number of Diptera species known from Finland over time based on the 5-year summaries by Hellén and Silfverberg and the three checklists of Finnish Diptera. The publishing years of the three checklists are noted.

Table 3. Recent Diptera checklists from north and central European countries. The species numbers of nematoceran, brachyceran, and all Diptera are listed for each country. Species of doubtful occurrence are not included in the counts.

Country	Reference	# of species recorded		
		nematoceran	brachyceran	all Diptera
<i>Nordic countries</i>				
Finland		2932	3989	6920
Sweden	Cederberg et al. (2010)	2260	4410	6670
Norway	Gammelmo et al. (2010)	1936	3116	5052
Denmark	Petersen and Meier (2001)	1327	3034	4361
<i>Baltic countries</i>				
Latvia	Karpa (2008)	–	–	1654
Lithuania	Pakalniškis et al. (2006)	–	–	3311
<i>Western and Central Europe</i>				
Poland	Zatwarnicki (2001)	–	–	6721
Great Britain	Chandler (1998, 2013a)	2844	4210	7054
Ireland	Chandler et al. (2008), Chandler (2013b)	1479	1907	3386
the Netherlands	Beuk (2002)	1640	3324	4964
Belgium	Grootaert et al. (1991)	–	–	4474
Germany	Schumann et al. (1999), Schumann (2009)	–	–	9544
Switzerland	Merz et al. (1998, 2006)	–	–	6813
Czech Republic	Jedlička et al. (2009)	5162	2755	7917
Slovakia	Jedlička et al. (2009)	4460	2380	6840
Hungary	Papp et al. (2001)	~1460	~4090	~5550

least populous countries—countries are more likely to harbor dipterists, who contribute faunistic records (see Figure 2).

From an accumulation curve of new records over the last century (Figure 3), one can immediately see that the Finnish fauna is far from completely known. If almost all species present in the country had already been found, one would expect the rate of new records to diminish (but not fall to zero as genuine expansive species would still occasionally arrive). What has actually happened is the opposite; the rate of new discoveries has increased in the last decade. The number of species found as new to Finland during each five-year period seems to reflect the number of active dipterologists in the country. To a degree, this may represent a backlog from the 1980s and 1990s, when the number of dipterists collecting in Finland and publishing new faunistic records was smaller than during the previous 70 years, or in the 21st century. Still, one could predict that the true number of Diptera species present in Finland may be well over eight thousand species, including hundreds of still unknown and undescribed species (Fontaine et al. 2012).

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Supplementary material 1

Electronic appendix 1: CVS taxon file

Authors: Jere Kahanpää

Data type: (measurement/occurrence/multimedia/etc.)

Explanation note: This file is encoded as UTF-8 text with a semicolon as the field separator. In Excel, the CSV file is best opened using the Data/From Text functionality. The data is formatted as Darwin Core (Darwin Core Task Group 2009) compliant. The following fields are provided: taxonID [Fauna Europaea URN if available], scientificName, taxonRank, higherClassification, order, family, genus, subgenus, specificEpithet, scientificNameAuthorship, identificationQualifier, identificationRemarks, bibliographicCitation, taxonConceptID.

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Supplementary material 2

Electronic appendix 2: PDF literature references file

Authors: Jere Kahanpää

Data type: References list.

Explanation note: A PDF file with additional references to first published records is also provided. Cross-references to Hackman's 1980 checklist are included. This file includes an index to genus- and species-level names.

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Checklist of the infraorder Tipulomorpha (Trichoceridae, Tipuloidea) (Diptera) of Finland

Jukka Salmela¹, Andrius Petrašiūnas²

1 Metsäballitus, Natural Heritage Services, P.O. Box 8016, FI-96101 Rovaniemi, Finland **2** Vilnius university Faculty of Natural Sciences Department of Zoology Ciurlionio st. 21/27 LT 03101 Vilnius, Lithuania

Corresponding author: *Jukka Salmela* (jukka.e.salmela@gmail.com)

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Abstract

A checklist of the infraorder Tipulomorpha: families Trichoceridae, Pediciidae, Limoniidae, Cylindrotomidae and Tipulidae (Diptera) recorded from Finland.

Keywords

Checklist, Finland, Diptera, Trichoceridae, Pediciidae, Limoniidae, Cylindrotomidae, Tipulidae

Introduction

Trichoceridae is a small family of medium sized gnats, mostly of Holarctic distribution. Larvae live in different decaying matter like leaves, wood, fungi or dead mammals. Adults form numerous swarms that are encountered during colder fall and spring months or warmer winter days in warmer climates or during the short summer months in northern latitudes.

No comprehensive and up to date key exists for north European adults or larvae, but a combination of Shtackelberg (1988), Starý (1999) and Petrašiūnas (2009) could be used. However, Shtackelberg (1988) must be used with caution because several species have since been published. List of trichocerids presented here is based on literature review (see Dahl 1968, Dahl and Alexander 1976), no new material has been studied.

Table 1. Number of species by family.

Family	Number of species in			Level of knowledge
	World (Oosterbroek 2014)	Europe (Pape et al. 2011)	Finland	
Tipulomorpha:				
Trichoceridae	183	50	15–17	poor-average
Pediciidae	490	63	19	good
Limoniidae	10528	545	196	good
Cylindrotomidae	71	7	7	good
Tipulidae	4280	456	114–115	good

Tipuloidea crane flies (Pediciidae, Limoniidae, Cylindrotomidae and Tipulidae) belong to the infraorder Tipulomorpha together with trichocerids (Wiegmann et al. 2011). Following Starý (1992), most European authors distinguish four families: Limoniidae, Tipulidae, Pediciidae and Cylindrotomidae. North American authors, strongly influenced by C.P. Alexander, usually prefer a single family, Tipulidae; other families, *sensu* Starý, are there subfamilies or tribes (Byers 1992, Petersen et al. 2010). According to a recent phylogenetic analysis (Petersen et al. 2010), two families are recognized, Tipulidae and Pediciidae, but the consensus tree of that analysis had many unresolved polytomies. Crane fly larvae occur usually in moist or (semi)aquatic habitats, but larvae may also be found on mosses, in dry soil, fungal fruiting bodies and dead wood. Cylindrotomids are herbivorous, feeding on vascular plants or mosses. Most larvae of (semi)aquatic species have open spiracles and are dependent on aerial oxygen supply, but truly aquatic species are able to withdraw dissolved oxygen through the cuticle of tracheal gills.

An annotated list of Finnish crane flies was provided by Salmela (2012a) and a few species were later added in subsequent papers (Salmela 2012b, 2013). Species richness of Finnish crane flies is negatively correlated with latitude but mire-dwelling crane flies have anomalous species richness gradient (Salmela 2012). Finnish crane flies are rather well known, but perhaps up to 20 more species could be found from Finland (Salmela 2013).

Checklist

Nematocera Dumeril, 1805
 infraorder Tipulomorpha Rohdendorf, 1961

TRICHO CERIDAE Rondani, 1841

CLADONEURA Scudder, 1894

= *Diazosma* Bergroth, 1913

? *Cladoneura hirtipenne* (Siebke, 1863)

TRICHO CERA Meigen, 1803

sg. *Metatrichocera* Dahl, 1966

- Trichocera gigantea* (Dahl, 1967)
Trichocera lutea Becher, 1886
Trichocera mackenziei (Dahl, 1967)
sg. *Saltrichocera* Krzeminska, 2002
Trichocera annulata Meigen, 1818
 ? *Trichocera arctica* Lundström, 1915
Trichocera implicata Dahl, 1976
Trichocera maculipennis Meigen, 1818
Trichocera parva Meigen, 1804
Trichocera regelationis (Linnaeus, 1758)
Trichocera rufescens Edwards, 1921
Trichocera saltator (Harris, 1776)
 = *fuscata* Meigen, 1818
Trichocera sparsa Starý & Martinovský, 1996
sg. *Trichocera* Meigen, 1803
Trichocera hiemalis (De Geer, 1776)
Trichocera inexplorata (Dahl, 1967)
Trichocera major Edwards, 1921
Trichocera sibirica Edwards, 1920

PEDICIIDAE Osten Sacken, 1860

PEDICIINAE Osten Sacken, 1860

DICRANOTA Zetterstedt, 1838

sg. *Dicranota* Zetterstedt, 1838

Dicranota bimaculata (Schummel, 1829)

Dicranota crassicauda Tjeder, 1972

Dicranota guerini Zetterstedt, 1838

sg. *Paradicranota* Alexander, 1934

Dicranota gracilipes Wahlgren, 1905

Dicranota pavida (Haliday, 1833)

Dicranota robusta Lundström, 1912

Dicranota subtilis Loew, 1871

sg. *Rhaphidolabis* Osten Sacken, 1869

Dicranota exclusa (Walker, 1848)

PEDICIA Latreille, 1809

sg. *Crunobia* Kolenati, 1859

Pedicia straminea (Meigen, 1838)

sg. *Pedicia* Latreille, 1809

Pedicia rivosa (Linnaeus, 1758)

TRICYPHONA Zetterstedt, 1837

sg. *Tricyphona* Zetterstedt, 1837

Tricyphona immaculata (Meigen, 1804)

Tricyphona livida Madarassy, 1881

Tricyphona schummeli Edwards, 1921
Tricyphona unicolor (Schummel, 1829)
 ULINAE Alexander, 1920
ULA Haliday, 1833
sg. *Ula* Haliday, 1833
Ula bolitophila Loew, 1869
Ula kiusbiuensis Loew, 1869
Ula mixta Starý, 1983
Ula mollissima Haliday, 1833
 = *inconclusa* (Walker, 1856)
Ula sylvatica (Meigen, 1818)

LIMONIIDAE Speiser, 1909

CHIONEINAE Rondani, 1841

ARCTOCONOPA Alexander, 1955

Arctoconopa forcipata (Lundström, 1915)
Arctoconopa obscuripes (Zetterstedt, 1851)
Arctoconopa zonata (Zetterstedt, 1851)

CHEILOTRICHIA Rossi, 1848

sg. *Cheilotrichia* Rossi, 1848
Cheilotrichia imbuta (Meigen, 1818)

sg. *Empeda* Osten Sacken, 1869
Cheilotrichia areolata (Lundström, 1912)
Cheilotrichia cinerascens (Meigen, 1804)
 = *nubila* (Schummel, 1829)

Cheilotrichia neglecta (Lackschewitz, 1927)

CHIONEA Dalman, 1816

sg. *Chionea* Dalman, 1816
Chionea araneoides Dalman, 1816
 = *minuta* Tahvonen, 1932

Chionea crassipes Boheman, 1846

sg. *Sphaeconophilus* Becker, 1912

Chionea lutescens Lundström, 1907
 = *brevirostris* Tahvonen, 1932

CRYPTERIA Bergroth, 1913

Crypteria limnophiloides Bergroth, 1913

ERIOCONOPA Stary, 1976

Eriocnopa diuturna (Walker, 1848)
Eriocnopa trivialis (Meigen, 1818)

ERIOPTERA Meigen, 1803

sg. *Erioptera* Meigen, 1803
Erioptera beckeri Kuntze, 1914
 = *fuscipennis* misid.

- Erioptera divisa* (Walker, 1848)
Erioptera flavata (Westhoff, 1882)
 = *gemina* Tjeder, 1967
Erioptera griseipennis Meigen, 1838
Erioptera lutea Meigen, 1804
Erioptera nielseni Meijere, 1921
Erioptera pederi Tjeder, 1969
Erioptera sordida Zetterstedt, 1838
Erioptera squalida Loew, 1871
Erioptera tordi Tjeder, 1973
GNOPHOMYIA Osten Sacken, 1860
Gnophomyia acheron Alexander, 1950
Gnophomyia lugubris (Zetterstedt, 1838)
Gnophomyia viridipennis (Gimmerthal, 1847)
GONEMPEDA Alexander, 1924
Gonempeda flava (Schummel, 1829)
GONOMYIA Meigen, 1818
sg. *Gonomyia* Meigen, 1818
Gonomyia abscondita Lackschewitz, 1935
 = *lucidula* misid.
Gonomyia bifida Tonnoir, 1920
Gonomyia dentata Meijere, 1920
Gonomyia simplex Tonnoir, 1920
Gonomyia stackelbergi Lackschewitz, 1935
Gonomyia tenella (Meigen, 1818)
sg. *Teuchogonomyia* Alexander, 1968
Gonomyia edwardsi Lackschewitz, 1925
HOPLOLABIS Osten Sacken, 1869
sg. *Parilisia* Savchenko, 1976
Hoplolabis areolata (Siebke, 1872)
Hoplolabis vicina (Tonnoir, 1920)
MOLOPHILUS Curtis, 1833
sg. *Molophilus* Curtis, 1833
Molophilus appendiculatus (Staeger, 1840)
Molophilus ater (Meigen, 1804)
Molophilus bifidus Goetghebuer, 1920
Molophilus bihamatus Meijere, 1918
Molophilus cinereifrons Meijere, 1920
Molophilus corniger Meijere, 1920
Molophilus crassipygus Meijere, 1918
 = *ochrescens* Edwards, 1938
Molophilus flavus Goetghebuer, 1920
Molophilus griseus (Meigen, 1804)

- Molophilus medius* Meijere, 1918
Molophilus obscurus (Meigen, 1818)
Molophilus occultus Meijere, 1918
Molophilus ochraceus (Meigen, 1818)
Molophilus propinquus (Egger, 1863)
Molophilus pullus Lackschewitz, 1927
NEOLIMNOPHILA Alexander, 1920
Neolimnophila carteri (Tonnoir, 1921)
Neolimnophila placida (Meigen, 1830)
ORMOSIA Rondani, 1856
sg. Oreophila Lackschewitz, 1935
Ormosia sootryeni (Lackschewitz, 1935)
sg. Ormosia Rondani, 1856
Ormosia brevinervis (Lundström, 1907)
Ormosia clavata (Tonnoir, 1920)
Ormosia depilata Edwards, 1938
Ormosia fascipennis (Zetterstedt, 1838)
Ormosia hederæ (Curtis, 1835)
Ormosia lineata (Meigen, 1804)
Ormosia loxia Starý, 1983
Ormosia pseudosimilis (Lundström, 1912)
Ormosia ruficauda (Zetterstedt, 1838)
Ormosia staegeriana Alexander, 1953
PHYLLOLABIS Osten Sacken, 1877
Phyllolabis macroura (Siebke, 1863)
RHABDOMASTIX Skuse, 1890
Rhabdomastix borealis Alexander, 1924
Rhabdomastix laeta (Loew, 1873)
Rhabdomastix parva (Siebke, 1863)
RHYPHOLOPHUS Kolenati, 1860
Rhypholophus haemorrhoidalis (Zetterstedt, 1838)
Rhypholophus varius (Meigen, 1818)
SCLEROPROCTA Edwards, 1938
Scleroprocta pentagonalis (Loew, 1973)
Scleroprocta sororcula (Zetterstedt, 1851)
 = *danica* (Nielsen, 1923)
SYMPLECTA Meigen, 1830
sg. Psiloconopa Zetterstedt, 1838
Symplecta lindrothi (Tjeder, 1955)
Symplecta meigeni (Zetterstedt, 1838)
Symplecta stictica (Meigen, 1818)
sg. Symplecta Meigen, 1830
Symplecta chosenensis (Alexander, 1940)

- Symplecta hybrida* (Meigen, 1804)
Symplecta mabelana (Alexander, 1955)
Symplecta scotica (Edwards, 1938)
sg. *Trimicra* Osten Sacken, 1861
Symplecta pilipes (Fabricius, 1787)
TASIOCERA Skuse, 1890
sg. *Dasympophilus* Goetghebuer, 1920
Tasiocera exigua Savchenko, 1973
Tasiocera fuscescens (Lackschewitz, 1940)
Tasiocera murina (Meigen, 1818)
 LIMNOPHILINAE Bigot, 1854
ADELPHOMYIA Bergroth, 1891
Adelphomyia punctum (Meigen, 1818)
AUSTROLIMNOPHILA Alexander, 1920
sg. *Archilimnophila* Alexander, 1934
Austrolimnophila harperi (Alexander, 1926)
Austrolimnophila unica (Osten Sacken, 1869)
DICRANOPHRAGMA Osten Sacken, 1860
sg. *Brachylimnophila* Alexander, 1966
Dicranophragma adjunctum (Walker, 1848)
Dicranophragma separatum (Walker, 1848)
 = *nemorale* misid.
 = *leucophaea* misid.
ELOEOPHILA Rondani, 1856
Eloeophila maculata (Meigen, 1804)
Eloeophila mundata (Loew, 1971)
Eloeophila submarmorata (Verrall, 1887)
Eloeophila trimaculata (Zetterstedt, 1838)
Eloeophila verralli (Bergroth, 1912)
EPIPHRAGMA Osten Sacken, 1860
sg. *Epiphragma* Osten Sacken, 1860
Epiphragma ocellare (Linnaeus, 1761)
EUPHYLIDOREA Alexander, 1972
Euphylidorea dispar (Meigen, 1818)
 = *lineola* misid.
Euphylidorea meigeni (Verrall, 1886)
Euphylidorea phaeostigma (Schummel, 1829)
EUTONIA van der Wulp, 1874
Eutonia barbipes (Meigen, 1804)
HEXATOMA Latreille, 1809
sg. *Hexatoma* Latreille, 1809
Hexatoma fuscipennis (Curtis, 1836)
 = *nubeculosa* misid.

IDIOPTERA Macquart, 1834*Idioptera linnei* Oosterbroek, 1992= *fasciata* (Linnaeus, 1767) preocc.*Idioptera pulchella* (Meigen, 1830)= *pulchella* var. *macropteryx* (Tjeder, 1955)**LIMNOPHILA** Macquart, 1834**sg. *Limnophila*** Macquart, 1834*Limnophila pictipennis* (Meigen, 1818)*Limnophila schranki* Oosterbroek, 1992= *punctata* (Schrank, 1781)**NEOLIMNOMYIA** Seguy, 1937**sg. *Neolimnomyia*** Seguy, 1937*Neolimnomyia batava* (Edwards, 1938)**PARADELPHOMYIA** Alexander, 1936**sg. *Oxyrhiza*** de Meijere, 1946*Paradelphomyia fuscula* (Loew, 1873)*Paradelphomyia nigrina* (Lackschewitz, 1940)**PHYLIDOREA** Bigot, 1854**sg. *Macrolabina*** Savchenko, 1986*Phylidorea nigronotata* (Siebke, 1870)**sg. *Paraphylidorea*** Savchenko, 1986*Phylidorea fulvonervosa* (Schummel, 1829)= *Euphylidorea lineola* misid.**sg. *Phylidorea*** Bigot, 1854*Phylidorea abdominalis* (Staeger, 1840)*Phylidorea bicolor* (Meigen, 1804)*Phylidorea ferruginea* (Meigen, 1818)*Phylidorea heterogyna* (Bergroth, 1913)*Phylidorea longicornis* (Schummel, 1829)= *glabricula* (Meigen, 1830)*Phylidorea nervosa* (Schummel, 1829)= *nigricollis* (Meigen, 1830)*Phylidorea squalens* (Zetterstedt, 1838)*Phylidorea umbrarum* (Krogerus, 1937)**PILARIA** Sintenis, 1889*Pilaria decolor* (Zetterstedt, 1851)*Pilaria discicollis* (Meigen, 1818)*Pilaria meridiana* (Staeger, 1840)*Pilaria nigropunctata* (Agrell, 1945)= *fuscipennis* misid.*Pilaria scutellata* (Staeger, 1840)**PSEUDOLIMNOPHILA** Alexander, 1919**sg. *Pseudolimnophila*** Alexander, 1919

- Pseudolimnophila lucorum* (Meigen, 1818)
 LIMONIINAE Speiser, 1909
ACHYROLIMONIA Alexander, 1965
Achyrolimonia decemmaculata (Loew, 1873)
ANTOCHA Osten Sacken, 1860
sg. Antocha Osten Sacken, 1860
Antocha vitripennis (Meigen, 1830)
ATYPOPHTHALMUS Brunetti, 1911
sg. Atypophthalmus Brunetti, 1911
Atypophthalmus inustus (Meigen, 1818)
DICRANOMYIA Stephens, 1829
sg. Dicranomyia Stephens, 1829
Dicranomyia aperta Wahlgren, 1904
Dicranomyia autumnalis (Staeger, 1840)
Dicranomyia consimilis (Zetterstedt, 1838)
Dicranomyia didyma (Meigen, 1804)
Dicranomyia distendens Lundström, 1912
Dicranomyia frontalis (Staeger, 1840)
Dicranomyia halterata Osten Sacken, 1869
Dicranomyia handlirschi Lackschewitz, 1928
Dicranomyia hyalinata (Zetterstedt, 1851)
Dicranomyia longipennis (Schummel, 1829)
Dicranomyia mitis (Meigen, 1830)
Dicranomyia modesta (Meigen, 1818)
Dicranomyia moniliformis Doane, 1900
Dicranomyia omissinervis Meijere, 1918
Dicranomyia patens Lundström, 1907
Dicranomyia radegasti Starý, 1993
Dicranomyia sera (Walker, 1848)
Dicranomyia terraenovae Alexander, 1920
Dicranomyia ventralis (Schummel, 1829)
Dicranomyia zernyi Lackschewitz, 1928
sg. Glochina Meigen, 1830
Dicranomyia liberta Osten Sacken, 1860
Dicranomyia tristis (Schummel, 1829)
 = *subtristis* Alexander, 1924
 = *schineri* misid.
 = *schineriana* misid.
sg. Idiopyga Savchenko, 1987
Dicranomyia danica Kuntze, 1919
Dicranomyia esbeni (Nielsen, 1940)
Dicranomyia halterella Edwards, 1921
Dicranomyia intricata Alexander, 1927

- Dicranomyia klefbecki* (Tjeder, 1941)
Dicranomyia lulensis (Tjeder, 1969)
Dicranomyia magnicauda Lundström, 1912
Dicranomyia murina (Zetterstedt, 1851)
Dicranomyia ponojensis Lundström, 1912
Dicranomyia stigmatica (Meigen, 1830)
sg. *Melanolimonia* Alexander, 1965
Dicranomyia caledonica Edwards, 1926
Dicranomyia morio (Fabricius, 1787)
Dicranomyia occidua Edwards, 1926
Dicranomyia rufiventris (Strobl, 1901)
Dicranomyia stylifera Lackschewitz, 1928
sg. *Numantia* Bigot, 1854
Dicranomyia fusca (Meigen, 1804)
DICRANOPTYCHA Osten Sacken, 1860
Dicranoptycha cinerascens (Meigen, 1818)
Dicranoptycha fuscescens (Schummel, 1829)
DISCOBOLA Osten Sacken, 1865
Discobola annulata (Linnaeus, 1758)
Discobola caesarea (Osten Sacken, 1854)
ELEPHANTOMYIA Osten Sacken, 1860
sg. *Elephantomyia* Osten Sacken, 1860
Elephantomyia edwardsi Lackschewitz, 1932
Elephantomyia krivosheinae Savchenko, 1976
HELIUS Lepeletier & Serville, 1828
sg. *Helius* Lepeletier & Serville, 1828
Helius flavus (Walker, 1856)
Helius longirostris (Meigen, 1818)
Helius pallirostris Edwards, 1921
LIBNOTES Westwood, 1876
sg. *Afrolimonia* Alexander, 1965
Libnotes ladogensis (Lackschewitz, 1940)
LIMONIA Meigen, 1803
sg. *Limnobia* Meigen, 18018
Limonia badia (Walker, 1848)
Limonia flavipes (Fabricius, 1787)
Limonia macrostigma (Schummel, 1829)
Limonia maculicosta (Coquillett, 1905)
Limonia messaurea Mendl, 1971
Limonia nubeculosa Meigen, 1804
Limonia phragmitidis (Schrank, 1781)
 = *tripunctata* Fabricius, 1781
Limonia stigma (Meigen, 1818)
Limonia sylvicola (Schummel, 1829)

Limonia trivittata (Schummel, 1829)

LIPSOTHRIX Loew, 1873

Lipsothrix ecucullata Edwards, 1938

Lipsothrix errans (Walker, 1848)

METALIMNOBIA Matsumura, 1911

sg. Metalimnobia Matsumura, 1911

Metalimnobia bifasciata (Schränk, 1781)

Metalimnobia charlesi Salmela & Starý, 2008

Metalimnobia quadrimaculata (Linnaeus, 1761)

Metalimnobia quadrinotata (Meigen, 1818)

Metalimnobia tenua Savchenko, 1976

Metalimnobia zetterstedti (Tjeder, 1968)

= *elegans* Zetterstedt, 1838 preocc.

NEOLIMONIA Alexander, 1964

Neolimonia dumetorum (Meigen, 1804)

ORIMARGA Osten Sacken, 1869

sg. Orimarga Osten Sacken, 1869

Orimarga attenuata (Walker, 1848)

Orimarga juvenilis (Zetterstedt, 1851)

RHIPIDIA Meigen, 1818

sg. Rhipidia Meigen, 1818

Rhipidia maculata Meigen, 1818

= *duplicata* (Doane, 1900)

Rhipidia uniseriata Schiner, 1864

CYLINDROTOMIDAE Schiner, 1863

CYLINDROTOMA Macquart, 1834

Cylindrotoma borealis Peus, 1952

Cylindrotoma distinctissima (Meigen, 1818)

Cylindrotoma nigriventris Loew, 1849

DIOGMA Edwards, 1938

Diogma caudata Takahashi, 1960

Diogma glabrata (Meigen, 1818)

PHALACROCERA Schiner, 1863

Phalacrocera replicata (Linnaeus, 1758)

TRIOGMA Schiner, 1863

Triogma trisulcata (Schummel, 1829)

TIPULIDAE Latreille, 1802

CTENOPHORINAE Osten Sacken, 1887

tribe Ctenophorini Osten Sacken, 1887

CTENOPHORA Meigen, 1803

sg. Ctenophora Meigen, 1803

Ctenophora flaveolata (Fabricius, 1794)

- Ctenophora guttata* Meigen, 1818
Ctenophora nigriceps (Tjeder, 1949)
Ctenophora pectinicornis (Linnaeus, 1758)
DICTENIDIA Brulle, 1833
Dictenidia bimaculata (Linnaeus, 1761)
PHOROCTENIA Coquillett, 1910
Phoroctenia vittata (Meigen, 1830)
tribe Tanypterini Savchenko, 1966
TANYPTERA Latreille, 1804
sg. Tanyptera Latreille, 1804
Tanyptera atrata (Linnaeus, 1758)
Tanyptera nigricornis (Meigen, 1818)
DOLICHOPEZINAE Osten Sacken, 1887
DOLICHOPEZA Curtis, 1825
sg. Dolichopeza Curtis, 1825
Dolichopeza albipes (Strom, 1768)
Dolichopeza bifida Osterbrook & Lantsov, 2011
= *nitida* of authors
TIPULINAE Latreille, 1802
tribe Prionocerini Savchenko, 1966
PRIONOCERA Loew, 1844
Prionocera abscondita Lackschewitz, 1933
Prionocera chosenicola Alexander, 1945
= *dimidiata* misid.
= *absentiva* misid.
Prionocera pubescens Loew, 1844
Prionocera recta Tjeder, 1948
= *lapponica* Tjeder, 1948
= *lackschewitzi* Mannheims, 1951
Prionocera ringdahli Tjeder, 1948
Prionocera serricornis (Zetterstedt, 1838)
Prionocera subserricornis (Zetterstedt, 1851)
= *proxima* Lackschewitz, 1933
Prionocera turcica (Fabricius, 1787)
Prionocera woodorum Brodo, 1987
tribe Tipulini Latreille, 1802
ANGAROTIPULA Savchenko, 1961
Angarotipula tumidicornis (Lundström, 1907)
NEPHROTOMA Meigen, 1803
Nephrotoma aculeata (Loew, 1871)
Nephrotoma analis (Schummel, 1833)
Nephrotoma appendiculata (Pierre, 1919)
Nephrotoma cornicina (Linnaeus, 1758)

- Nephrotoma crocata* (Linnaeus, 1758)
Nephrotoma dorsalis (Fabricius, 1781)
Nephrotoma flavescens (Linnaeus, 1758)
Nephrotoma lundbecki (Nielsen, 1907)
Nephrotoma lunulicornis (Schummel, 1833)
Nephrotoma pratensis (Linnaeus, 1758)
Nephrotoma quadristriata (Schummel, 1833)
Nephrotoma relictata (Savchenko, 1973)
Nephrotoma scurra (Meigen, 1818)
Nephrotoma submaculosa Edwards, 1928
Nephrotoma tenuipes (Riedel, 1910)
NIGROTIPULA Hudson & Vane-Wright, 1969
Nigrotipula nigra (Linnaeus, 1758)
TIPULA Linnaeus, 1758
sg. Acutipula Alexander, 1924
Tipula fulvipennis De Geer, 1776
Tipula maxima Poda, 1761
sg. Arctotipula Alexander, 1934
Tipula salicetorum Siebke, 1870
 = *nigricornis* Zetterstedt, 1851
sg. Beringotipula Savchenko, 1961
Tipula unca Wiedemann, 1817
 = *hortensis* Meigen, 1818
sg. Dendrotipula Savchenko, 1964
Tipula flavolineata Meigen, 1804
sg. Emodotipula Alexander, 1966
Tipula obscuriventris Strobl, 1900
sg. Lindnerina Mannheims, 1965
Tipula bistilata Lundström, 1907
Tipula subexcisa Lundström, 1907
sg. Lunatipula Edwards, 1931
Tipula affinis Schummel, 1833
Tipula circumdata Siebke, 1863
 = *livida* misid.
Tipula fascipennis Meigen, 1818
Tipula humilis Staeger, 1840
Tipula laetabilis Zetterstedt, 1838
 = *dilatata* Schummel, 1833
Tipula limitata Schummel, 1833
Tipula lunata Linnaeus, 1758
 = *luna* mistake
? *Tipula peliostigma* Schummel, 1833
Tipula recticornis Schummel, 1833

- Tipula selene* Meigen, 1830
Tipula trispinosa Lundström, 1907
Tipula vernalis Meigen, 1804
sg. Odonatisca Savchenko, 1956
Tipula nodicornis Meigen, 1818
 = *juncea* Meigen, 1818
sg. Platytipula Matsumura, 1916
Tipula luteipennis Meigen, 1830
Tipula melanoceros Schummel, 1833
sg. Pterelachisus Rondani, 1842
Tipula cinereocincta Lundström, 1907
Tipula crassicornis Zetterstedt, 1838
Tipula irrorata Macquart, 1826
Tipula jutlandica Nielsen, 1947
Tipula kaisilai Mannheims, 1954
Tipula laetibasis Alexander, 1934
Tipula luridorostris Schummel, 1833
Tipula matsumuriana ssp. *pseudohortensis* Lackschewitz, 1932
Tipula mutila Wahlgren, 1905
Tipula octomaculata Savchenko, 1964
Tipula pabulina Meigen, 1818
Tipula pauli Mannheims, 1964
Tipula pseudoirrorata Goetghebuer, 1921
Tipula recondita Pilipenko & Salmela, 2012
Tipula stenostyla Savchenko, 1964
Tipula submarmorata Schummel, 1833
 = *meigeni* Mannheims, 1966
Tipula truncorum Meigen, 1830
Tipula varipennis Meigen, 1818
 = *pseudovariipennis* misid.
Tipula wahlgreni Lackschewitz, 1925
Tipula winthemi Lackschewitz, 1932
sg. Savtshenkia Alexander, 1965
Tipula alpium Bergroth, 1888
Tipula benesignata Mannheims, 1954
Tipula confusa van der Wulp, 1883
 = *marmorata* Meigen, 1818
Tipula gimmerthali Lackschewitz, 1925
Tipula grisescens Zetterstedt, 1851
Tipula interserta Riedel, 1913
Tipula invenusta Riedel, 1919
Tipula limbata Zetterstedt, 1838
Tipula obsoleta Meigen, 1818

- Tipula pagana* Meigen, 1818
Tipula signata Staeger, 1840
Tipula subnodicornis Zetterstedt, 1838
sg. *Schummelia* Edwards, 1931
Tipula variicornis Schummel, 1833
sg. *Tipula* Linnaeus, 1758
Tipula paludosa Meigen, 1830
 = *oleracea* misid.
Tipula subcunctans Alexander, 1921
 = *czizeki* de Jong, 1925
sg. *Vestiplex* Bezzi, 1924
Tipula excisa Schummel, 1833
Tipula hortorum Linnaeus, 1758
Tipula laccata Lundström & Frey, 1916
Tipula montana Curtis, 1834
Tipula nubeculosa Meigen, 1804
Tipula pallidicosta Pierre, 1924
Tipula scripta Meigen, 1830
Tipula sintenisi Lackschewitz, 1933
Tipula tchukchi Alexander, 1934
 = *bo* Mannheims, 1967
sg. *Yamatotipula* Matsumura, 1916
Tipula chonsaniana Alexander, 1945
Tipula coerulescens Lackschewitz, 1923
Tipula couckeii Tonnoir, 1921
Tipula fendleri Mannheims, 1963
Tipula freyana Lackschewitz, 1936
Tipula lateralis Meigen, 1804
Tipula marginella Theowald, 1980
 = *marginata* Meigen, 1818
Tipula moesta Riedel, 1919
Tipula montium Egger, 1863
Tipula pierrei Tonnoir, 1921
 = *solstitialis* Westhoff, 1879
Tipula pruinosa Wiedemann, 1817
Tipula quadrivittata Staeger, 1840

Excluded species

Trichocera japonica Matsumura, 1915

Twenty-two previously reported crane fly species were deleted from the Finnish list by Salmela (2012a); these are not repeated here.

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Checklist of the families Chaoboridae, Dixidae, Thaumaleidae, Psychodidae and Ptychopteridae (Diptera) of Finland

Jukka Salmela¹, Lauri Paasivirta², Gunnar M. Kvifte³

1 *Metsähallitus, Natural Heritage Services, P.O. Box 8016, FI-96101 Rovaniemi, Finland* **2** *Ruuhikoskenkatu 17 B 5, 24240 Salo, Finland* **3** *Department of Limnology, University of Kassel, Heinrich-Plett-Str. 40, 34132 Kassel-Oberzwehren, Germany*

Corresponding author: *Jukka Salmela* (jukka.e.salmela@gmail.com)

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Abstract

A checklist of the families Chaoboridae, Dixidae, Thaumaleidae, Psychodidae and Ptychopteridae (Diptera) recorded from Finland is given. Four species, *Dixella dyari* Garret, 1924 (Dixidae), *Threticus tridactylis* (Kincaid, 1899), *Panimerus albifacies* (Tonnoir, 1919) and *P. przhiboroi* Wagner, 2005 (Psychodidae) are reported for the first time from Finland.

Keywords

Finland, Diptera, species list, biodiversity, faunistics

Introduction

Psychodidae or moth flies are an intermediately diverse family of nematocerous flies, comprising over 3000 species world-wide (Pape et al. 2011). Its taxonomy is still very unstable, and multiple conflicting classifications exist (Duckhouse 1987, Vaillant 1990, Ježek and van Harten 2005). The nomenclature used in the Finnish check-list follows the

Norwegian one (Kvifte et al. 2011). For differences between the taxonomy used herein and that used in previous works on Finnish Psychodidae (e.g. Hackman 1980, Salmela 2003, 2005, Salmela et al. 2007, Autio and Salmela 2010) see Kvifte et al. (2011). Two species, *Pneumia nubila* and *Pneumia palustris*, listed in the previous check-lists by Hackman (1980) and Wagner (2013) have not been confirmed through study of material. Of these, *P. palustris* have been suggested to be synonymous with *Pneumia gracilis* (Eaton, 1893) (Withers 1989). Both these species have been linked to some taxonomic confusion in the past, and thus the record of *P. nubila* may represent *Pneumia trivialis*. The present check-list contains the first Finnish records of the species *Threticus tridactilis* (Kincaid, 1899), *Panimerus albifacies* (Tonnoir, 1919) and *P. przhiboroi* Wagner, 2005 (see Notes).

Finnish Psychodidae are very well studied compared to other Nordic countries, however new species are still being discovered at a regular rate. Most of these are new country records, but in recent years the fauna has also yielded some species new to science (Salmela et al. 2012, Kvifte unpubl.). This trend is likely to continue. Probably between twelve and thirty further species can be expected to be found in the Finnish fauna. There are no good identification sources available for Psychodids, as all works suffer from taxonomic or nomenclatural errors and/or insufficient descriptions. The best works relevant to the Finnish fauna are Vaillant (1971-1983), Withers (1989) and Wagner (1997c, genera only).

Phantom midges (Chaoboridae) are close relatives to mosquitoes (Culicidae) and meniscus midges (Dixidae) (Saether 1970, 1997). There are around 50 known species of phantom midges in the world and 15 in the palearctic region, of which five are holarctic species. In Finland, there are eight species in three genera (Hirvenoja 1960, Hackman 1980, in which the species in the genus *Mochlonyx* were still doubtful).

The only strictly lacustrine species in Finland is *Chaoborus flavicans*. The other species live in small fishless lakes, ponds and springs where their predators are mainly dragon flies, dytiscid beetles and frogs. *Chaoborus nyblaei* and *Cryophila lapponica* are found from small fishless ponds on fells and ponds created by melting water. However, in 2013 larvae of *C. nyblaei* were found from the boreal zone, NE Lapland (Savukoski) from a small but permanent pond. *Chaoborus pallidus* lives in eutrophic lakes and small lakes in southern and central Finland (Hirvenoja 1960, 1963, Paasivirta 2002). However, there have not been any systematic surveys of the fauna across the biogeographic provinces and the conservation statuses of the species have not been evaluated. Finnish species can be identified by using Saether (1997, 2002).

Meniscus midges (Dixidae) belong to infraorder Culicomorpha. There are nearly 200 known species of which 53 occur in the Palaearctic region. In Finland two genera and 16 species are present (Hackman 1980, Salmela 2003, Salmela et al. 2007). One species (*Dixella dyari* Garret, 1924) is reported here for the first time from Finland (see Notes). Larvae of meniscus midges dwell in or slightly above water meniscus, having a characteristic U-shaped position (Wagner 1997a). Members of the genus *Dixella* are associated with lentic or slow flowing waters, such as ponds, lake shores and bog pools. Species of the genus *Dixa* are lotic, dwelling in running waters of varying size. Two Finnish species, *Dixa dilatata* and *D. submaculata* prefer springs and spring brooks. The Finnish fauna is generally rather well known, although three species have hitherto

Table 1. Number of species by family.

Family	Number of species in			Level of knowledge
	World (Pape et al. 2011)	Europe	Finland	
Psychodomorpha:				
Psychodidae	2958	493	61–63	average
Culicomorpha:				
Chaoboridae	54	9	8	good
Dixidae	186	32	16	average
Thaumaleidae	182	76	1	good
Ptychopteromorpha:				
Ptychopteridae	69 (Wagner et al. 2008)	14	7	good

been collected from single localities. One northern *Dixa* species close to *D. dilatata* is still undescribed. A majority of the species can be identified by using Martini (1928), Peus (1934, 1936), Vaillant (1967) and Disney (1999).

Trickle midges (Thaumaleidae) is a small family belonging to infraorder Culicomorpha. Globally, nearly 200 species are known of which 76 are European. Central European mountains harbor a rich assemblage of trickle midges (Wagner 2002), at least if compared to the poor diversity (5 spp.) in Fennoscandian area (Wagner 1997b, Andersen et al. 2013). Only one species, *Thaumalea truncata*, has been hitherto recorded from Finland (see the discussion in Andersen et al. 2013). Larvae of trickle midges dwell on hygropetric substrates or splash zones of running waters (Wagner 1997b). *Thaumalea truncata* occurs mainly in northern Finland, both boreal and subarctic ecoregions, and adult specimens have been caught around springs and headwater streams (Salmela 2003, Salmela 2008).

Phantom crane flies (Ptychopteridae) belong to infraorder Ptychopteromorpha, being a sister group of Psychodomorpha and Culicomorpha (Wiegmann et al. 2011). Ptychopteridae is a small family with over 69 species in the world and 14 in Europe. Seven species are known from Finland, all belonging to the genus *Ptychoptera*. Only one Finnish species, *Ptychoptera minuta*, is widespread, locally abundant and almost ubiquitous. Other species are much less frequent, occurring in peatlands, headwater streams, springs and swamps. Adult *Ptychoptera* superficially resemble Tipuloidea crane flies, being slender and having long legs. Larvae of *Ptychoptera* live in shallow aquatic habitats, usually in soft substrates (Andersson 1997). Finnish species can be identified by using Andersson (1997) and Krzeminski (1986).

Checklist

Nematocera Dumeril, 1805
 infraorder Psychodomorpha Hennig, 1968

PSYCHODIDAE Newman, 1834
 PSYCHODINAE Newman, 1834

tribe Pericomaini Enderlein, 1935

PARABAZARELLA Vaillant, 1983

Parabazarella subneglecta (Tonnoir, 1922)

BERDENIELLA Vaillant, 1976

Berdeniella freyi (Berdén, 1954)

CLYTOCERUS Eaton, 1904

sg. **Boreoclytocerus** Duckhouse, 1978

Clytocerus ocellaris (Meigen, 1818)

Clytocerus rivosus (Tonnoir, 1919)

Clytocerus tetracorniculatus Wagner, 1977

PERICOMA Walker, 1856

sg. **Pachypericoma** Vaillant, 1978

Pericoma blandula Eaton, 1893

Pericoma nielseni Kvifte, 2010

= *formosa* Nielsen, 1964 (preocc. Meunier, 1905)

sg. **Pericoma** Walker, 1856

Pericoma rivularis Berdén, 1954

PNEUMIA Enderlein, 1935

Pneumia borealis (Berdén, 1954)

Pneumia bucegica (Vaillant, 1981)

Pneumia mutua (Eaton, 1893)

? *Pneumia nubila* (Meigen, 1818)

? *Pneumia palustris* (Meigen, 1818)

Pneumia pilularia (Tonnoir, 1940)

Pneumia stammeri (Jung, 1954)

Pneumia trivialis (Eaton, 1893)

Pneumia ussurica (Wagner, 1994)

ULOMYIA Walker, 1856

Ulomyia cognata (Eaton, 1893)

Ulomyia fuliginosa (Meigen, 1804)

tribe Psychodini Newman, 1834

PHILOSEPEDON Eaton, 1904

Philosepedon balkanicus Krek, 1970

Philosepedon humeralis (Meigen, 1818)

Philosepedon soljani Krek, 1971

PSYCHODA Latreille, 1796

Psychoda albipennis Zetterstedt, 1850

= *parthenogenetica* Tonnoir, 1940

Psychoda alternata Say, 1824

Psychoda brevicornis Tonnoir, 1940

Psychoda buxtoni Withers, 1988

Psychoda cinerea Banks, 1894

- Psychoda crassipenis* Tonnoir, 1940
Psychoda cultella Salmela, Kvifte & More, 2012
Psychoda erminea Eaton, 1898
Psychoda gemina (Eaton, 1904)
Psychoda grisescens Tonnoir, 1922
Psychoda itoco Tokunaga & Komyo, 1955
Psychoda lativentris Berdén, 1952
Psychoda lobata Tonnoir, 1940
Psychoda minuta Banks, 1894
Psychoda phalaenoides Linnaeus, 1758
Psychoda satchelli Quate, 1955
Psychoda setigera Tonnoir, 1922
Psychoda trinodulosa Tonnoir, 1922
Psychoda uniformata Haseman, 1907
THRETICUS Eaton, 1904
Threticus tridactilis (Kincaid, 1899)
TRICHOPSYCHODA Tonnoir, 1922
Trichopsychoda hirtella (Tonnoir, 1919)
tribe Maruinini Enderlein, 1937
LOBULOSA Szabo, 1960
Lobulosa pollex (Berdén, 1954)
TONNOIRIELLA Vaillant, 1971
Tonnoiriella nigricauda (Tonnoir, 1919)
tribe Mormiini Enderlein, 1937
MORMIA Enderlein, 1935
Mormia niesiolowskii Wagner, 1985
Mormia strobli (Ježek, 1986)
tribe Paramormiini Enderlein, 1937
PARAJUNGIELLA Vaillant, 1972
Parajungiella consors (Eaton, 1893)
Parajungiella ellisi (Withers, 1987)
Parajungiella pseudolongicornis Wagner, 1975
LEPISEODINA Enderlein, 1937
Lepiseodina rothschildi (Eaton, 1912)
PANIMERUS Eaton, 1913
sg. Panimerus Eaton, 1913
Panimerus albomaculatus (Wahlgren, 1904)
Panimerus notabilis (Eaton, 1893)
sg. Psycmera Ježek, 1984
Panimerus albifacies (Tonnoir, 1919)
Panimerus intellegus (Jung, 1956)
Panimerus przhiboroi Wagner, 2005

PARAMORMIA Enderlein, 1935*Paramormia polyscoidea* (Krek, 1970)*Paramormia ustulata* (Walker, 1856)**PERIPSYCHODA** Enderlein, 1935*Peripsychoda auriculata* (Curtis, 1839)*Peripsychoda fusca* (Macquart, 1826)**TELMATOSCOPIUS** Eaton, 1904*Telmatoscopus advena* (Eaton, 1893)*Telmatoscopus similis* Tonnoir, 1922

SYCORACINAE Rondani, 1856

SYCORAX Haliday in Curtis, 1839*Sycorax silacea* Haliday in Curtis, 1839

infraorder Culicomorpha Hennig, 1948

superfamily Culicoidea Meigen, 1818

CHAOBORIDAE Newman, 1834**CHAOBORUS** Lichtenstein, 1800sg. *Chaoborus* Lichtenstein, 1800*Chaoborus crystallinus* (De Geer, 1776)*Chaoborus flavicans* (Meigen, 1830)*Chaoborus obscuripes* (van der Wulp, 1859)sg. *Peusomyia* Sæther, 1970*Chaoborus pallidus* (Fabricius, 1794)sg. *Schadanophasma* Dyar & Shannon, 1924*Chaoborus nyblaei* (Zetterstedt, 1838)**CRYOPHILA** Edwards, 1930*Cryophila lapponica* (Martini, 1928)**MOCHLONYX** Loew, 1844*Mochlonyx fuliginosus* Felt, 1905= *M. martinii* Edwards, 1930= *M. velutinus* of authors*Mochlonyx velutinus* (Ruthe, 1831)= *M. culiciformis* (De Geer, 1776) preocc.**DIXIDAE** Schiner, 1868**DIXA** Meigen, 1818*Dixa dilatata* Strobl, 1900*Dixa nebulosa* Meigen, 1830*Dixa puberula* Loew, 1849*Dixa submaculata* Edwards, 1920**DIXELLA** Dyar & Shannon, 1924*Dixella aestivalis* (Meigen, 1818)*Dixella amphibia* (De Geer, 1776)

Dixella autumnalis (Meigen, 1838)
Dixella borealis (Martini, 1928)
Dixella dyari (Garret, 1924)
Dixella filicornis (Edwards, 1926)
Dixella hyperborea (Bergroth, 1889)
Dixella laeta (Loew, 1849)
Dixella naevia (Peus, 1934)
Dixella nigra (Staeger, 1840)
Dixella obscura (Loew, 1849)
Dixella serotina (Meigen, 1818)

THAUMALEIDAE Bezzi, 1913

THAUMALEA Ruthe, 1831

Thaumalea truncata Edwards, 1929

infraorder Ptychopteromorpha Wood & Borkent, 1986

superfamily Ptychopteroidea Osten Sacken, 1862

PTYCHOPTERIDAE Osten Sacken, 1862

PTYCHOPTERA Meigen, 1803

sg. Paraptychoptera Tonnoir, 1919

Ptychoptera lacustris Meigen, 1830

Ptychoptera paludosa Meigen, 1804

sg. Ptychoptera Meigen, 1803

Ptychoptera albimana (Fabricius, 1787)

Ptychoptera contaminata (Linnaeus, 1758)

Ptychoptera hugoi Tjeder, 1968

Ptychoptera minuta Tonnoir, 1919

Ptychoptera scutellaris Meigen, 1818

Excluded species

Dixa maculata Meigen, 1818. There is one female specimen collected from Russia, Kantalaks (=Kandalaksha) that belongs to *Dixella borealis*.

Notes

Threticus tridactylis: Ostrobothnia borealis pars borealis, Rovaniemi, Nammalikokivalo, 13.6.–11.7.2004, J. Salmela leg.; Regio kuusamoensis, Taivalkoski, Poikaloukusanoja, 1.6.–1.7.2006, J. Salmela leg.; Regio kuusamoensis, Taivalkoski, Syväoja 1.6.-1.7.2006, J. Salmela leg.

- Panimerus albifacies***: Regio aboensis, Turku, Pomponrahka-Isosuo mire conservation area, 1.8.–28.9.2011, J. Salmela & E. Nummela leg.
- Panimerus przhiboroi***: Ostrobothnia borealis pars borealis, Tervola, Ruuttulampi conservation area, 4.6.–2.7.2012 J. Salmela leg. (New for European fauna)
- Psychoda albipennis*** Zetterstedt has been confirmed to occur in Finland by Bo-W. Svensson (female specimen from Tavastia australis, South Finland, Tampere, 2009, J. Salmela leg.).
- Dixella dyari***: Lapponia enontekiensis, Enontekiö, Pallas-Yllästunturi National Park, Lumikero E, 25.8.2010, J. Salmela leg.

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Checklist of the family Culicidae (Diptera) in Finland

Larry Huldén¹, Lena Huldén²

1 Finnish Museum of Natural History, Zoology Unit, P.O. Box 17, FI-00014 University of Helsinki, Finland

2 University of Helsinki, Department of Agricultural Sciences, P.O. Box 27, FI-00014 University of Helsinki, Finland

Corresponding author: *Larry Huldén* (larry.hulden@helsinki.fi)

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Abstract

A checklist of the Culicidae (Diptera) recorded from Finland is provided.

Keywords

Checklist, Finland, Diptera, Culicidae, mosquitoes

Introduction

The family Culicidae comprises 3539 extant species world-wide. The Finnish fauna is relatively small in relation to world fauna. Because of medical importance this family has been extensively taxonomically studied but still new species are discovered. The generic and subgeneric classifications of Culicidae follow Reinert et al. 2009. Because of some confusing use of names in the first half of the twentieth century in the Finnish literature, all available names are included in the list for clarity. The most important work on the Finnish mosquitoes was done by Pirkka Utrio (1975, 1976, 1977, 1978, 1979).

Number of species:

World: 3539 extant species + 25 fossil species (Harbach 2014)

Europe: 104 species (Snow and Ramsdale 2004)

Finland: 38 species

Checklist

suborder Nematocera Dumeril, 1805
 infraorder Culicomorpha Hennig, 1948
 superfamily Culicoidea Meigen, 1818

CULICIDAE Meigen, 1818

ANOPHELINAE Grassi, 1900

Anopheles Meigen, 1818

sg. Anopheles Meigen, 1818

Anopheles beklemishevi Stegni & Kabanova, 1976

= *maculipennis* auct. in part

Anopheles claviger (Meigen, 1804)

Anopheles messeae Falleroni, 1926

= *claviger* (of Fabricius, 1805) auct. nec Meigen, 1804

= *maculipennis* auct. in part

CULICINAE Meigen, 1818

Aedes Meigen, 1818

Aedes cinereus Meigen, 1818

Aedimorphus Theobald, 1903

Aedes vexans (Meigen, 1830)

Coquillettidia Dyar, 1905

Coquillettidia richiardii (Ficalbi, 1889)

Culex Linnaeus, 1758

sg. Culex Linnaeus, 1758

Culex pipiens Linnaeus, 1758

Culex torrentium Martini, 1925

sg. Neoculex Dyar, 1905

Culex territans Walker, 1856

= *apicalis* auct. nec Adams, 1903

Culiseta Felt 1904

= *Theobaldia* Neveu-Lemaire, 1902 preocc.

sg. Culicella Felt, 1904

Culiseta morsitans (Theobald, 1901)

Culiseta ochroptera Peus, 1935

sg. Culiseta Felt, 1904

Culiseta alaskaensis (Ludlow, 1906)

Culiseta annulata (Schrank, 1776)

Culiseta bergrothi (Edwards, 1921)

= *glaphyoptera* auct. nec (Shiner, 1864)

Culiseta subochrea (Edwards, 1921)

Dahlia Reinert, Harbach & Kitching, 2006

Dahlia geniculata (Olivier, 1791)

Ochlerotatus Lynch Arribalzaga, 1881

- sg. *Ochlerotatus*** Lynch Arribalzaga, 1881
Ochlerotatus annulipes (Meigen, 1830)
Ochlerotatus euedes (Howard, Dyar & Knab, 1913)
 = *beklemishevi* Denisova, 1955
Ochlerotatus cantans (Meigen, 1818)
 = *waterhousei* (Theobald in Waterhouse, 1905)
 = *maculatus* auct. nec (Meigen, 1804)
 = *rusticus* auct. nec (Rossi, 1790)
Ochlerotatus caspius (Pallas, 1771)
Ochlerotatus cataphylla Dyar, 1916
Ochlerotatus communis (De Geer, 1776)
 = *nemosus* (Meigen, 1818)
Ochlerotatus cyprius Ludlow, 1920
 = *freyi* Edwards, 1921
Ochlerotatus diantaeus Howard, Dyar & Knab, 1912
Ochlerotatus dorsalis (Meigen, 1830)
Ochlerotatus excrucians (Walker, 1848)
Ochlerotatus flavescens (Müller, 1776)
 = *lutescens* (Fabricius, 1775)
 = *variegatus* (Schrank, 1781)
Ochlerotatus hexodontus Dyar, 1919
Ochlerotatus impiger (Walker, 1848)
 = *parvulus* (Edwards 1921)
 = *nearcticus* auct. nec (Dyar, 1922)
Ochlerotatus intrudens Dyar, 1919
Ochlerotatus leucomelas (Meigen, 1804)
Ochlerotatus nigrinus (Eckstein, 1918)
 = *sticticus* auct. nec Meigen 1828
Ochlerotatus nigripes (Zetterstedt, 1838)
 = *alpinus* auct. nec (Linnaeus) nomen dubium
Ochlerotatus pionips Dyar, 1919
Ochlerotatus pullatus (Coquillett, 1904)
Ochlerotatus punctodes Dyar, 1922
Ochlerotatus punctor (Kirby, 1837)
Ochlerotatus riparius Dyar & Knab, 1907

Notes

***Anopheles maculipennis* Meigen, 1818.** Not recorded in Finland. All previous reports refer to *An. messeae* or *An. beklemishevi*.

Anopheles claviger (of Fabricius, 1805). Mistaken name usage for *Anopheles maculipennis* s. lat. in the early 20th century Finnish literature which then followed the Italian tradition.

***Culex pipiens f. molestus* Forskåhl, 1775.** This is not a valid species level taxon. It is a man biting form of the mainly bird biting *Culex pipiens*. Both have been reported from Finland.

***Dahlia geniculata* (Oliver, 1791).** A possibly occasional specimen of this species was collected in Western Finland, verified by Christine Dahl (Itämies 1981).

***Ochlerotatus alpinus* L. Frey (1921)** included this invalid species name (see Harbach 2014) in the Finnish list with a question mark. Hellén (1931) withdrew it from the Finnish list. According to Utrio (1977), Frey refers to *nigripes* (Zetterstedt, 1838).

***Ochlerotatus behningi* Martini, 1926.** The species is listed for both Finland and Sweden in Dahl (1997). Lundström et al. (2013) do not accept the report for Sweden because of absence of documented locality. Based on the same argument, we do not include this species in the Finnish list.

***Ochlerotatus (Rusticoidus) rusticus* (Rossi, 1790).** Dahl (1997) listed this species for Finland. There are, however, no confirmed collections of the species in Finland. Frey (1921) listed *Aedes maculatus* Meigen (with *A. waterhousei* Theobald as a presumed synonym) from Finland. According to Natvig (1948), Meigen made a mistake in 1830 when he stated that “*maculatus* is the male of *cantans*” instead of “*reptans* is the male of *cantans*”, leading to a switch in synonyms. According to Minar (1990) the correct combinations should be as follows: *maculatus* Meigen is a synonym of *rusticus* (Rossi) and both *reptans* (Meigen) and *waterhousei* (Theobald) are synonyms of *cantans* (Meigen). From this context, it is obvious that Frey refers to the common species *cantans* and not to the southern species *rusticus*.

***Ochlerotatus sticticus* (Meigen, 1838).** The species was reported from Finland (Kilpisjärvi) by Frey (1932) and listed for Finland in Frey and Storå (1941). According to Natvig (1948) and Utrio (1979) this record refers to *Aedes nigrinus* (Eckstein). In addition, it was reported by Syrjämäki (1960) in Finland (Hanko: Tvärminne) but later withdrawn by the author according to Utrio (1979, personal communication). It was also included for Finland in Dahl (1997), probably based on the former reports. According to Gutsevich et al. (1970) this species occurs in Russian Karelia. Thus, *A. sticticus* is not included in the Finnish list.

***Culex apicalis* Adams, 1903.** Originally reported by Martini (1928) from Finland. All European reports of this Nearctic species before 1950 represent the closely related Holarctic species *Culex territans* (Becker et al. 2003).

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Checklist of the family Ceratopogonidae (Diptera) of Finland

Larry Huldén¹, Lena Huldén²

1 Finnish Museum of Natural History, Zoology Unit, P.O. Box 17, FI-00014 University of Helsinki, Finland

2 University of Helsinki, Department of Agricultural Sciences, P.O. Box 27, FI-00014 University of Helsinki, Finland

Corresponding author: *Larry Huldén* (larry.hulden@helsinki.fi)

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Abstract

A checklist of the family Ceratopogonidae (Diptera) recorded from Finland is provided.

Keywords

Checklist, Finland, Diptera, Ceratopogonidae

Introduction

The biting midges (Ceratopogonidae) have only occasionally been studied by Finnish entomologists. Most notable are the studies by Lundström (1910, 1916), Munsterhjelm (1920), Storå (1939) and Hämäläinen (1988). The last mentioned reference is not published in print but included because the determinations have been checked by Peter Havelka. Other species reports were given by Frey (1918), Forsius (1924), Krogerus (1960), Meinander (1977) and Huldén et al. (2010). A considerable part of the species information has been contributed by foreign specialists, Edwards (1924), Clastrier (1961, 1991), Delecolle et al. (1983), Borkent and Bissett (1990), Szadziewski (2001), Ashe et al. (2007), Dominiak et al. (2007), Dominiak and Szadziewski (2010) and Dominiak (2012).

A World Catalogue of Ceratopogonidae is maintained by Art Borkent (2014), updated Jan. 20, 2014.

Number of species:

World: 6180 extant species + 274 fossil species (Borkent 2014)

Europe: 567 species (Fauna Europaea, Szadziewski, Borkent and Dominiak 2014)

Finland: 97 species

Faunistic knowledge level in Finland: medium

Checklist

suborder Nematocera Dumeril, 1805

infraorder Culicomorpha Hennig, 1948

superfamily Chironomoidea Newman, 1834

CERATOPOGONIDAE Newman, 1834

FORCIPOMYIINAE Lenz, 1934

ATRICHOPOGON Kieffer, 1906

sg. *Atrichopogon* Kieffer, 1906

Atrichopogon brunnipes (Meigen, 1804)

Atrichopogon fuscus (Meigen, 1804)

= *fossicola* (Kieffer, 1922)

Atrichopogon longicalcar Remm, 1961

Atrichopogon minutus (Meigen, 1830)

Atrichopogon pavidus (Winnertz, 1852)

sg. *Meloebelea* Wirth, 1956

Atrichopogon lucorum (Meigen, 1818)

Atrichopogon meloesugans Kieffer, 1922

= *winnertzi* auct. nec Goetghebuer, 1922

Atrichopogon oedemerarum Storå, 1939

sg. *Psilokempia* Enderlein, 1936

Atrichopogon appendiculatus (Goetghebuer, 1920)

Atrichopogon forcipatus (Winnertz, 1852)

Atrichopogon maculatus (Lundström, 1910)

= *minutus* var. *maculatus* Lundström, 1910

Atrichopogon rostratus (Winnertz, 1852)

FORCIPOMYIA Meigen, 1818

sg. *Caloforcipomyia* Saunders, 1957

Forcipomyia glauca Macfie, 1934

sg. *Forcipomyia* Meigen, 1818

Forcipomyia bipunctata (Linnaeus, 1767)

Forcipomyia ciliata (Winnertz, 1852)

- Forcipomyia costata* (Zetterstedt, 1838)
 = *picea* (Winnertz, 1852)
Forcipomyia kaltenbachi (Winnertz, 1852)
Forcipomyia myrmecophila (Egger, 1863)
Forcipomyia nigra (Winnertz, 1852)
sg. *Microhelea* Kieffer, 1917
Forcipomyia fuliginosa (Meigen, 1818)
 = *brevimana* (Lundström, 1910)
sg. *Thyridomyia* Saunders, 1925
Forcipomyia monilicornis (Coquillett, 1905)
 = *hirta* (Lundström, 1910)
sg. *Trichobelea* Goetghebuer, 1920
Forcipomyia eques (Johanssen, 1908)
 DASYHELEINAE Lenz, 1934
DASYHELEA Kieffer, 1911
sg. *Dasyhelea* Kieffer, 1911
Dasyhelea bensoni Edwards, 1933
 = *vernalis* Remm, 1979
Dasyhelea bilineata Goetghebuer, 1920
 = *saxicola* (Edwards, 1929)
 = *obscura* auct. nec (Winnertz, 1852)
 = *versicolor* auct. nec (Winnertz, 1852)
Dasyhelea pallidiventris (Goetghebuer, 1931)
sg. *Dicryptoscena* Enderlein, 1936
Dasyhelea modesta (Winnertz, 1852)
 = *aestiva* (Winnertz, 1852)
 = *longipalpis* Kieffer, 1913
Dasyhelea notata Goetghebuer, 1920
sg. *Pseudoculicoides* Malloch, 1915
Dasyhelea corinneae Gosseries, 1991
 = *scutellata* (Meigen, 1830), preocc.
Dasyhelea flavoscutellata (Zetterstedt, 1850)
 = *egens* (Winnertz, 1852)
sg. *Sebessia* Remm, 1979
Dasyhelea holosericea (Meigen, 1804)
 CERATOPOGONINAE Newman 1834
 tribe Culicoidini Kieffer, 1911
Culicoides Latreille, 1809
Culicoides achrayi Kettle & Lawson, 1955
Culicoides albicans (Winnertz, 1852)
 = *vexans* auct. nec (Staeger, 1839)
Culicoides chiopterus (Meigen, 1830)
Culicoides circumscriptus Kieffer, 1918

- Culicoides dewulfi* Goetghebuer, 1936
Culicoides fascipennis (Staeger 1839)
Culicoides festivipennis Kieffer, 1914
 = *odiblis* Austen, 1921
Culicoides grisescens Edwards, 1939
Culicoides impunctatus Goetghebuer, 1920
Culicoides kibunensis Tokunaga 1937
 = *cubitalis* Edwards in Edwards et al. 1939
Culicoides nubeculosus (Meigen, 1830)
Culicoides obsoletus (Meigen, 1818)
 = *varius* (Winnertz, 1852)
Culicoides pallidicornis (Kieffer 1919)
Culicoides pictipennis (Staeger, 1839)
Culicoides pseudoheliophilus Callot & Kremer, 1961
Culicoides pulicaris (Linnaeus, 1758)
Culicoides punctatus (Meigen, 1804)
Culicoides riethi Kieffer, 1914
Culicoides riouxi Callot & Kremer, 1961
Culicoides salinarius Kieffer, 1914
Culicoides scoticus Downes & Kettle, 1952
Culicoides segnis Campbell & Pelham-Clinton 1960
Culicoides sphagnumensis Williams, 1955
 = *carjalaensis* Glukhova, 1957
Culicoides stigma (Meigen, 1818)
Culicoides subfasciipennis Kieffer, 1919
 tribe Ceratopogonini Newman, 1834
ALLUAUDOMYIA Kieffer, 1913
Alluaudomyia needhami Thomsen, 1935
 = *pentaspila* Remm & Glukhova, 1971
Alluaudomyia quadripunctata (Goetghebuer, 1934)
BRACHYPOGON Kieffer, 1899
sg. Isohelea Kieffer, 1917
Brachypogon aquilonalis (Clastrier, 1961)
Brachypogon hyperboreus (Clastrier 1961)
Brachypogon incompletus (Kieffer, 1925)
 = *lapiae* Clastrier, 1961
Brachypogon nitidulus (Edwards, 1921)
 = *finniae* Clastrier, 1961
Brachypogon sociabilis (Goetghebuer, 1920)
CERATOPOGON Meigen, 1800
Ceratopogon lacteipennis Zetterstedt, 1838
Ceratopogon niveipennis Meigen, 1818
 = *candidatus* Winnertz, 1852

SCHIZOHELEA Kieffer, 1917*Schizohoelea leucopeza* (Meigen, 1804)= *copiosa* Winnertz, 1852= *xanthopeza* (Clastrier, 1963)**SERROMYIA** Meigen, 1818*Serromyia atra* (Meigen, 1818)*Serromyia femorata* (Meigen, 1804)*Serromyia subinermis* Kieffer, 1919

tribe Heteromyiini Wirth, 1962

CLINOHELEA Kieffer, 1917*Clinohoelea unimaculata* (Macquart, 1826)= *variegata* (Winnertz, 1852)

tribe Sphaeromiini Newman 1834

MALLOCHOHELEA Wirth, 1962*Mallochohoelea inermis* (Kieffer, 1909)*Mallochohoelea munda* (Loew, 1864)= *dentata* (Kieffer, 1909)*Mallochohoelea nitida* (Macquart, 1826)*Mallochohoelea setigera* (Loew, 1864)*Mallochohoelea vernalis* Remm, 1965**PROBEZZIA** Kieffer, 1906= *Dicrobezzia* Kieffer, 1919*Probezzia concinna* (Meigen, 1818)= *venusta* v. *concinna* (Meigen, 1818)*Probezzia seminigra* (Panzer, 1798)= *venusta* (Meigen, 1818)= *borealis* (Clastrier, 1962)**SPHAEROMIAS** Curtis, 1829*Sphaeromias fasciatus* (Meigen, 1804)*Sphaeromias pictus* (Meigen, 1818)= *candidatus* (Loew, 1856) preocc.

tribe Palpomyiini Enderlein, 1936

BEZZIA Kieffer, 1899*Bezzia annulipes* (Meigen, 1830)*Bezzia bicolor* (Meigen, 1804)*Bezzia circumdata* (Staeger, 1839)= *solstitialis* (Winnertz, 1852)*Bezzia coracina* (Zetterstedt, 1850)= *albipes* (Winnertz, 1852)*Bezzia fascispinosa* Clastrier, 1962*Bezzia flavicornis* (Staeger, 1839)= *flavipalpis* (Winnertz, 1852)*Bezzia fuscifemoris* Remm, 1971

- Bezzia leucogaster* (Zetterstedt, 1850)
 = *xanthocephala* Goetghebuer, 1911
Bezzia nigrifula (Zetterstedt, 1838)
Bezzia nobilis (Winnertz, 1852)
 = *leucogaster* var. *punctata* Lundström, 1910
Bezzia winnertziana Kieffer, 1919
 = *gracilis* (Winnertz, 1852) nec Haliday, 1833
PALPOMYIA Meigen, 1818
Palpomyia armipes (Meigen, 1838)
 = *rufipecta* (Winnertz, 1852)
Palpomyia distincta (Haliday, 1833)
Palpomyia flavipes (Meigen, 1804)
 = *hortulana* Meigen, 1818
Palpomyia flavitarsis (Meigen, 1838)
Palpomyia lineata (Meigen, 1804)
 = *stagnalis* Clastrier, 1962
Palpomyia lundstroemi Remm, 1981
 = *bispinosa* Lundström, 1916, preocc.
Palpomyia serripes (Meigen, 1818)
 = *transfuga* (Staeger, 1839)
Palpomyia tibialis (Meigen, 1818)

Notes

- Atrichopogon meloesugans* Kieffer, 1922.** This species was restored from synonymy with *A. winnertzi* Goetghebuer, 1922 by Szadziewski et al. (2007).
- Dasyhelea modesta* (Winnertz, 1852).** Old records reported before 1988 of this species (as *D. aestiva* (Winnertz, 1852) or *D. longipalpis* (Winnertz, 1852)) are questionable according to Dominiak and Szadziewski (2010). Records by Hämäläinen (1988) are valid.
- Ceratopogon neglectus* Winnertz, 1852.** Reported by Lundström (1910) as *Culicoides neglectus* from Finland. Szadziewski (1984) transferred it to *Dasyhelea*. Remm (1988) considered it a doubtful Ceratopogonidae. Because the type specimen is lost and the original description is insufficient it is considered nomen dubium by Dominiak and Szadziewski (2010). The species is removed from the Finnish list.
- Culicoides vexans* (Staeger, 1839).** Reported from Finland by Lundström (1910) who listed *Culicoides albicans* as a probable synonym. *C. vexans* was omitted in Frey and Storå (1941) and Havelka (1978) but included in Hackman (1980) and Szadziewski et al. (1997) (citing Hackman). According to Delecolle et al. (1983) Lundström's *C. vexans* represents *C. albicans*. *C. albicans* is included in the Finnish list and *C. vexans* is removed from the Finnish fauna.
- Culicoides reconditus* (Campbell & Pelham-Clinton, 1960) and *C. riouxi* Callot & Kremer, 1961.** *C. riouxi* was treated as a synonym of *C. reconditus* in Borkent

and Wirth (1997) but restored from synonymy in Borkent (2012). Delecolle et al. (1983) reported *C. riouxi* as a valid species from Finland (N: Tvärminne). The record of *C. reconditus* by Hämäläinen (1988) from Finland (Ta: Riihimäki) was checked by Havelka but because he considered *C. riouxi* and *C. reconditus* synonyms the identity of Hämäläinen's record remains unclear (see Havelka and Aquilar 1999 and Huldén et al. 2008 in accordance with Borkent and Wirth 1997). As a consequence *C. reconditus* is not included in the Finnish list.

***Culicoides salinarius* Kieffer, 1914.** According to Delecolle et al. (1983) this species is indistinguishable from *C. manchuriensis* Tokunaga, 1941 which is reported from Russian Karelia by Glukhova (1957).

***Probezzia concinna* (Meigen, 1818).** The record listed by Krogerus (1960) from Kuusamo district (by mistake as '*coracina*') is tentatively interpreted to be in the same locality in Finland as *Probezzia seminigra*, Kuusamo: Isosuo (Storå 1937). *P. concinna* was listed as a variety of *P. seminigra* in Frey and Storå (1941). Storå obviously identified both taxa. The species is here interpreted as a Finnish species.

***Palpomyia flavipennis* Meigen, 1804.** Misspelled species name for *P. flavipes* (Frey and Storå 1941).

***Palpomyia aterrima* Goetghebuer, 1921.** The record listed by Krogerus (1960) from Kuusamo district is from the Russian part according to locality data in Storå (1939). Not recorded in Finland.

***Palpomyia spinipes* (Meigen) in Panzer, 1806.** The record listed by Krogerus (1960) from Kuusamo district is from the Russian part according to the bog type information. Not recorded in Finland.

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Checklist of the family Chironomidae (Diptera) of Finland

Lauri Paasivirta¹

¹ *Ruuhikoskenkatu 17 B 5, FI-24240 Salo, Finland*

Corresponding author: *Lauri Paasivirta* (lauri.paasivirta@suomi24.fi)

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Abstract

A checklist of the family Chironomidae (Diptera) recorded from Finland is presented.

Keywords

Finland, Chironomidae, species list, biodiversity, faunistics

Introduction

There are supposedly at least 15 000 species of chironomid midges in the world (Armitage et al. 1995, but see Pape et al. 2011) making it the largest family among the aquatic insects. The European chironomid fauna consists of 1262 species (Sæther and Spies 2013). In Finland, 780 species can be found, of which 37 are still undescribed (Paasivirta 2012).

The species checklist written by B. Lindeberg on 23.10.1979 (Hackman 1980) included 409 chironomid species. Twenty of those species have been removed from the checklist due to various reasons. The total number of species increased in the 1980s to 570, mainly due to the identification work by me and J. Tuiskunen (Bergman and Jansson 1983, Tuiskunen and Lindeberg 1986). There has been a new rapid increase in the total number of species since 1998. I have reported 187 additional species, of which 8 have been new to science, and other researchers have reported 24 additional

species. The chironomid fauna of all biogeographical provinces has been relatively well surveyed (Paasivirta 2012, including the trapping efficiency and the collectors).

Holotypes and paratypes exist for 87 species described from Finland. 23 species have been found only in Finland, thus making them putatively endemic species. Six of these species have only been found from the original type locality. 42 species have been found only from one collecting site in Finland.

Larvae of chironomid midges are found in all types of aquatic habitats. In addition, some species (130 species, 17%) specialize in semi-aquatic environments like wet moss on wetlands and shores of lotic waters. A total of 367 species have been identified from springs and the surrounding habitats in Finland. Sixteen percent of these species are associated with or specialized in springs and 25% are semi-aquatic species (Paasivirta 2007). One hundred and seventy aquatic species have been found from marine habitats, excluding river estuaries (Paasivirta 2000 and later additions). Sixty five additional species live in the mildly brackish water in the northern part of Bothnian Bay. There are only four strictly marine species.

The conservation statuses have been estimated for 667 Finnish chironomid species. Eleven species are classified as vulnerable (VU), 21 as near threatened (NT) and 6 species as lacking sufficient information (DD) (Penttinen et al. 2010). Since the chironomid midges have not been extensively studied and no long-term studies have been performed in Finland, the only useful criteria for the assessment of the conservation statuses have been either extent of occurrence or area of occupancy.

The nomenclature of the species list is consistent with Fauna Europaea (Sæther and Spies 2013). Undescribed species are specified with appellations derived from the first collecting locality. For example *Procladius* sp. 2 “Palsa” was first found at a site called Palsa.

The list of Finnish chironomids (with bioprovincial distribution data) was last updated by Paasivirta (2012).

Number of species:

World: 7053 species (Pape et al. 2011)

Europe: 1262 species (Sæther and Spies 2013)

Finland: 780 species, incl. 37 undescribed species

Faunistic knowledge level in Finland: good

Checklist

Nematocera Dumeril, 1805

infraorder Culicomorpha Hennig, 1948

superfamily Chironomoidea Newman, 1834

CHIRONOMIDAE Newman, 1834

PODONOMINAE Thienemann & Edwards, 1937

tribe Boreochlini Brundin, 1966

- BOREOCHLUS** Edwards, 1938
Boreochlus thienemanni Edwards, 1938
- LASIODIAMESA** Kieffer, 1924
Lasiodiamesa armata Brundin, 1966
Lasiodiamesa gracilis (Kieffer, 1924)
Lasiodiamesa sphagnicola (Kieffer, 1925)
tribe Podonomini Thienemann & Edwards, 1937
- PAROCHLUS** Enderlein, 1912
Parochlus kiefferi (Garrett, 1925)
- TRICHOTANYPUS** Kieffer, 1906
Trichotanypus mariae Wirth & Sublette, 1970
Trichotanypus posticalis (Lundbeck, 1898)
- TANYPODINAE Skuse, 1889
tribe Anatopyniini Fittkau, 1962
- ANATOPYNIA** Johannsen, 1905
Anatopynia plumipes (Fries, 1823)
tribe Coelotanypodini Coffman, 1978
= Clinotanypodini Lipina, 1928
- CLINOTANYPUS** Kieffer, 1913
Clinotanypus nervosus (Meigen, 1818)
tribe Macropelopiini Zavřel, 1929
- APSECTROTANYPUS** Fittkau, 1962
Apsectrotanypus trifascipennis (Zetterstedt, 1838)
- MACROPELOPIA** Thienemann, 1916
Macropelopia adaucta Kieffer, 1916
= *goetghebueri* (Kieffer, 1918)
Macropelopia nebulosa (Meigen, 1804)
Macropelopia notata (Meigen, 1818)
- PSECTROTANYPUS** Kieffer, 1909
Psectrotanypus varius (Fabricius, 1787)
tribe Natarsiini Roback & Moss, 1978
- NATARSIA** Fittkau, 1962
Natarsia nugax (Walker, 1856)
Natarsia punctata (Fabricius, 1805)
tribe Pentaneurini Hennig, 1950
- ABLABESMYIA** Johannsen, 1905
Ablabesmyia longistyla Fittkau, 1962
Ablabesmyia monilis (Linnaeus, 1758)
Ablabesmyia phatta (Egger, 1864)
- ARCTOPELOPIA** Fittkau, 1962
Arctopelopia barbitarsis (Zetterstedt, 1850)
Arctopelopia griseipennis (van der Wulp, 1859)
Arctopelopia melanosoma (Goetghebuer, 1933)

- CONCHAPELOPIA** Fittkau, 1957
Conchapelopia aagaardi Murray, 1987
Conchapelopia hittmairorum Michiels & Spies, 2002
Conchapelopia intermedia Fittkau, 1962
Conchapelopia melanops (Meigen, 1818)
Conchapelopia pallidula (Meigen, 1818)
GUTTIPELOPIA Fittkau, 1962
Guttipelopia guttipennis (van der Wulp, 1861)
HAYESOMYIA Murray & Fittkau, 1986
Hayesomyia tripunctata (Goetghebuer, 1922)
KRENOPELOPIA Fittkau, 1962
Krenopelopia binotata (Wiedemann, 1817)
Krenopelopia nigropunctata (Staeger, 1839)
LABRUNDINIA Fittkau, 1962
Labrundinia longipalpis (Goetghebuer, 1921)
LARSIA Fittkau, 1962
Larsia atrocincta (Goetghebuer, 1942)
MONOPELOPIA Fittkau, 1962
Monopelopia tenuicalcar (Kieffer, 1918)
NILOTANYPUS Kieffer, 1923
Nilotanypus dubius (Meigen, 1804)
PARAMERINA Fittkau, 1962
Paramerina cingulata (Walker, 1856)
Paramerina divisa (Walker, 1856)
PENTANEURELLA Fittkau & Murray, 1983
Pentaneurella katterjokki Fittkau & Murray, 1983
RHEOPELOPIA Fittkau, 1962
Rheopelopia maculipennis (Zetterstedt, 1838)
Rheopelopia ornata (Meigen, 1838)
TELMATOPELOPIA Fittkau, 1962
Telmatopelopia nemorum (Goetghebuer, 1921)
TELOPELOPIA Roback, 1971
Telopelopia fascigera (Verneaux, 1970)
THIENEMANNIMYIA Fittkau, 1957
Thienemannimyia carnea (Fabricius, 1805)
Thienemannimyia fusciceps (Edwards, 1929)
Thienemannimyia laeta (Meigen, 1818)
Thienemannimyia lentiginosa (Fries, 1823)
Thienemannimyia pseudocarnea Murray, 1976
Thienemannimyia vitellina (Kieffer, 1916)
TRISSOPELOPIA Kieffer, 1923
Trissopelopia longimana (Staeger, 1839)
XENOPELOPIA Fittkau, 1962

- Xenopelopia falcigera* (Kieffer, 1911)
Xenopelopia nigricans (Goetghebuer, 1927)
ZAVRELIMYIA Fittkau, 1962
Zavrelimyia barbatipes (Kieffer, 1911)
Zavrelimyia hirtimana (Kieffer, 1918)
Zavrelimyia melanura (Meigen, 1804)
tribe Procladiini Roback, 1971
PROCLADIUS Skuse, 1889
sg. Holotanypus Roback, 1982
Procladius appropinquatus (Lundström, 1917)
Procladius choreus (Meigen, 1804)
Procladius culiciformis (Linnaeus, 1767)
= *crassinervis* (Zetterstedt, 1838)
Procladius fimbriatus Wülker, 1959
Procladius fuscus Brundin, 1949
? *Procladius islandicus* (Goetghebuer, 1931)
Procladius nudipennis Brundin, 1947
Procladius pectinatus (Kieffer, 1909)
Procladius signatus (Zetterstedt, 1850)
Procladius simplicistylus Freeman, 1948
Procladius suecicus Brundin, 1949
Procladius cf. *vesus* Roback, 1971
Procladius sp. 1 “Valassaaret”
Procladius sp. 2 “Palsa”
Procladius sp. 3 “Kaldoaivi”
sg. Psilotanypus Kieffer, 1906
Procladius flavifrons Edwards, 1929
Procladius imicola Kieffer, 1922
Procladius lugens Kieffer, 1915
Procladius rufovittatus (van der Wulp, 1874)
tribe Tanypodini Skuse, 1889
TANYPUS Meigen, 1803
Tanypus kraatzi (Kieffer, 1912)
Tanypus punctipennis Meigen, 1818
Tanypus vilipennis (Kieffer, 1918)
DIAMESINAE Kieffer, 1922
tribe Diamesini Kieffer, 1922
DIAMESA Meigen, 1835
Diamesa aberrata Lundbeck, 1898
Diamesa arctica (Boheman, 1865)
Diamesa bertrami Edwards, 1935
Diamesa bohemani Goetghebuer, 1932
Diamesa hyperborea Holmgren, 1869

Diamesa incallida (Walker, 1856)

Diamesa insignipes Kieffer, 1908

Diamesa latitarsis (Goetghebuer, 1921)

Diamesa permacra (Walker, 1856)

Diamesa serratosioi Willassen, 1986

Diamesa tonsa (Haliday, 1856)

= *thienemanni* Kieffer, 1909

POTTHASTIA Kieffer, 1922

Potthastia gaedii (Meigen, 1838)

Potthastia longimanus Kieffer, 1922

Potthastia pastoris (Edwards, 1933)

PSEUDODIAMESA Goetghebuer, 1939

Pseudodiamesa branickii (Nowicki, 1873)

Pseudodiamesa nivosa (Goetghebuer, 1928)

PSEUDOKIEFFERIELLA Zavřel, 1941

= **Diplomesa** Zavřel 1941

Pseudokiefferiella parva (Edwards, 1932)

SYMPOTTHASTIA Pagast, 1947

Sympotthastia fulva (Johannsen, 1921)

Sympotthastia huldeni Tuiskunen, 1986

SYNDIAMESA Kieffer, 1918

Syndiamesa sp., indet. larva

tribe Protanypini Brundin, 1956

PROTANYPUS Kieffer, 1906

Protanypus caudatus Edwards, 1924

Protanypus morio (Zetterstedt, 1838)

TELMATOGETONINAE Wirth, 1949

TELMATOGETON Schiner, 1866

Telmatogeton japonicus Tokunaga, 1933

PRODIAMESINAE Sæther, 1976

MONODIAMESA Kieffer, 1922

Monodiamesa bathyphila (Kieffer, 1918)

Monodiamesa ekmani (Brundin, 1949)

ODONTOMESA Pagast, 1947

Odontomesa fulva (Kieffer, 1919)

PRODIAMESA Kieffer, 1906

Prodiamesa olivacea (Meigen, 1818)

ORTHOCLADIINAE Kieffer, 1911

AAGAARDIA Sæther, 2000

Aagaardia protensa Sæther, 2000

Aagaardia sivertseni (Aagaard, 1979)

Aagaardia(?) sp. 1

ABISKOMYIA Edwards, 1937

- Abiskomyia paravirgo* Goetghebuer, 1940
Abiskomyia virgo Edwards, 1937
ACAMPTOCLADIUS Brundin, 1956
Acamptocladius reissi Cranston & Sæther, 1982
Acamptocladius submontanus (Edwards, 1932)
ACRICOTOPUS Kieffer, 1921
Acricotopus lucens (Zetterstedt, 1850)
ALLOCLADIUS Kieffer, 1913
Allocladius bothnicus (Tuiskunen, 1984)
BOREOSMITTIA Tuiskunen, 1986
Boreosmittia inariensis Tuiskunen, 1986
Boreosmittia karelioborealis Tuiskunen, 1986
BRILLIA Kieffer, 1913
Brillia bifida (Kieffer, 1909)
 = *modesta* (Meigen, 1830) preocc.
Brillia longifurca Kieffer, 1921
BRYOPHAENOCLADIUS Thienemann, 1934
Bryophaenocladus aestivus (Brundin, 1947)
Bryophaenocladus dentatus (Karl, 1937)
Bryophaenocladus flexidens (Brundin, 1947)
Bryophaenocladus ictericus (Meigen, 1830)
*Bryophaenocladus illimbatu*s (Edwards, 1929)
Bryophaenocladus cf. *impectinus* Sæther, 1976
Bryophaenocladus inconstans (Brundin, 1947)
Bryophaenocladus cf. *laticaudus* Sæther, 1973
Bryophaenocladus muscicola (Kieffer, 1906)
Bryophaenocladus nidorum (Edwards, 1929)
Bryophaenocladus nigrus Albu, 1974
Bryophaenocladus nitidicollis (Goetghebuer, 1913)
Bryophaenocladus pectinatus Albu, 1974
Bryophaenocladus psilacrus Sæther, 1982
Bryophaenocladus saanae Tuiskunen, 1986
Bryophaenocladus scanicus (Brundin, 1947)
Bryophaenocladus cf. *sclerus* Wang, Liu & Epler, 2004
Bryophaenocladus subparallelus (Malloch, 1915)
Bryophaenocladus subvernalis (Edwards, 1929)
Bryophaenocladus tuberculatus (Edwards, 1929)
Bryophaenocladus vernalis (Goetghebuer, 1921)
Bryophaenocladus xanthogyne (Edwards, 1929)
Bryophaenocladus sp., pr. *xanthogyne*
Bryophaenocladus sp. 1 "Syöte"
Bryophaenocladus sp. 2 "Syöte"
Bryophaenocladus sp. 3 "Malla"

- Bryophaenocladus* sp. 4 "Tsarmi"
Bryophaenocladus sp. 5 "Pallas"
Bryophaenocladus sp. 6 "Rommas"
CAMPTOCLADIUS van der Wulp, 1874
Camptocladus stercorarius (De Geer, 1776)
CARDIOCLADIUS Kieffer, 1912
Cardiocladus capucinus (Zetterstedt, 1850)
Cardiocladus fuscus Kieffer, 1924
CHAETOCLADIUS Kieffer, 1911
Chaetocladus acuminatus Brundin, 1956
Chaetocladus binotatus (Lundström, 1915)
Chaetocladus britae Säwedal, 1976
Chaetocladus crassisetosus Tuiskunen, 1986
Chaetocladus dentiforceps (Edwards, 1929)
Chaetocladus dissipatus (Edwards, 1929)
Chaetocladus glacialis (Lundström, 1915)
Chaetocladus gracilis Brundin, 1956
Chaetocladus grandilobus Brundin, 1956
Chaetocladus laminatus Brundin, 1947
Chaetocladus maeaeri Brundin, 1947
Chaetocladus sp., pr. *melaleucus* (Meigen, 1818)
Chaetocladus muliebris Tuiskunen, 1986
Chaetocladus perennis (Meigen, 1830)
Chaetocladus piger (Goetghebuer, 1913)
Chaetocladus cf. *rusticus* (Goetghebuer, 1932)
Chaetocladus suecicus (Kieffer, 1916)
Chaetocladus tenuistylus Brundin, 1947
CLUNIO Haliday, 1855
Clunio balticus Heimbach, 1978
CORYNONEURA Winnertz, 1846
Corynoneura arctica Kieffer, 1923
Corynoneura brundini Hirvenoja & Hirvenoja, 1988
Corynoneura carriana Edwards, 1924
Corynoneura celeripes Winnertz, 1852
Corynoneura celtica Edwards, 1924
Corynoneura coronata Edwards, 1924
Corynoneura edwardsi Brundin, 1949
Corynoneura fittkaui Schlee, 1968
Corynoneura gratias Schlee, 1968
Corynoneura gynocera Tuiskunen, 1983
Corynoneura lacustris Edwards, 1924
Corynoneura lobata Edwards, 1924
Corynoneura magna Brundin, 1949

- Corynoneura scutellata* Winnertz, 1846
 = *longipennis* auct. nec Tokunaga, 1936
Corynoneura sp. 1 “Tvärminne”
Corynoneura sp. 2
CORYNONEURELLA Brundin, 1949
Corynoneurella paludosa Brundin, 1949
CRICOTOPUS van der Wulp, 1874
sg. Cricotopus van der Wulp, 1874
Cricotopus albiforceps (Kieffer, 1916)
Cricotopus annulator Goetghebuer, 1927
Cricotopus bicinctus (Meigen, 1818)
Cricotopus caducus Hirvenoja, 1973
Cricotopus coronatus Hirvenoja, 1973
Cricotopus cumulatus Hirvenoja, 1973
Cricotopus cylindraceus (Kieffer, 1908)
Cricotopus ephippium (Zetterstedt, 1838)
Cricotopus festivellus (Kieffer, 1906)
Cricotopus flavocinctus (Kieffer, 1924)
Cricotopus fuscus (Kieffer, 1909)
Cricotopus magus Hirvenoja, 1973
Cricotopus pallidipes Edwards, 1929
Cricotopus patens Hirvenoja, 1973
Cricotopus pilidorsum Hirvenoja, 1973
Cricotopus pilosellus Brundin, 1956
Cricotopus pirifer Hirvenoja, 1973
Cricotopus polaris Kieffer, 1926
Cricotopus sp., pr. *polaris*
Cricotopus pulchripes Verrall, 1912
Cricotopus septentrionalis Hirvenoja, 1973
Cricotopus similis Goetghebuer, 1921
Cricotopus slossonae Malloch, 1915
 = *claripes* Hirvenoja, 1973
Cricotopus tibialis (Meigen, 1804)
Cricotopus tremulus (Linnaeus, 1758)
Cricotopus triannulatus (Macquart, 1826)
Cricotopus trifascia Edwards, 1929
Cricotopus tristis Hirvenoja, 1973
Cricotopus vierriensis Goetghebuer, 1935
Cricotopus villosus Hirvenoja, 1973
sg. Isocladius Kieffer, 1909
Cricotopus arcuatus Hirvenoja, 1973
Cricotopus brevipalpis Kieffer, 1909
Cricotopus intersectus (Staeger, 1839)

- Cricotopus laetus* Hirvenoja, 1973
Cricotopus laricomalis Edwards, 1932
Cricotopus maurii Spies & Sæther, 2004
 = *polychaetus* Hirvenoja, 1989 preocc.
Cricotopus obnixus (Walker, 1856)
Cricotopus sp. cf. *obnixus* Hirvenoja, 1973
Cricotopus obtusus Hirvenoja, 1973
Cricotopus ornatus (Meigen, 1818)
Cricotopus perniger (Zetterstedt, 1850)
Cricotopus pilicauda Hirvenoja, 1973
Cricotopus pilitarsis (Zetterstedt, 1850)
Cricotopus reductus Hirvenoja, 1973
Cricotopus relucens Hirvenoja, 1973
Cricotopus reversus Hirvenoja, 1973
Cricotopus suspiciosus Hirvenoja, 1973
Cricotopus sylvestris (Fabricius, 1794)
Cricotopus tricinctus (Meigen, 1818)
Cricotopus trifasciatus (Meigen, 1810)
sg. Nostoccladius Ashe & Murray, 1980
Cricotopus lygropis Edwards, 1929
sg. ?
Cricotopus(?) sp. 1 “Tapionaho”
DIPLOCLADIUS Kieffer, 1908
Diplocladius cultriger Kieffer, 1908
DONCRICOTOPUS Sæther, 1981
Doncricotopus dentatus Tuiskunen, 1985
DRATNALIA Sæther & Halvorsen, 1981
Dratnalia potamophylaxi (Fittkau & Lellak, 1971)
EPOICOCLADIUS Sulc & Zavřel, 1924
Epoicocladius ephemerae (Kieffer, 1924)
 = *flavens* auct. nec (Malloch, 1915)
EUKIEFFERIELLA Thienemann, 1926
Eukiefferiella boevrensis Brundin, 1956
Eukiefferiella brevicealcar (Kieffer, 1911)
Eukiefferiella claripennis (Lundbeck, 1898)
Eukiefferiella clypeata (Thienemann, 1919)
Eukiefferiella devonica (Edwards, 1929)
Eukiefferiella dittmari Lehmann, 1972
Eukiefferiella gracei (Edwards, 1929)
Eukiefferiella sp., pr. *gracei*
Eukiefferiella ilkleyensis (Edwards, 1929)
Eukiefferiella minor (Edwards, 1929)
EURYCNEMUS van der Wulp, 1874

- Eurycnemus crassipes* (Meigen, 1810)
GEORTHOCLADIUS Strenzke, 1941
Georthocladius luteicornis (Goetghebuer, 1941)
Georthocladius platystylus Sæther & Sublette, 1983
 ?= *Parachaetocladius retezati* Albu, 1972
GYMNOMETRIOCNEMUS Edwards, 1932
sg. *Gymnometriocnemus* Edwards, 1932
Gymnometriocnemus subnudus (Edwards, 1929)
sg. *Rhaphidocladius* Sæther, 1983
Gymnometriocnemus brumalis (Edwards, 1929)
Gymnometriocnemus volitans (Goetghebuer, 1940)
HALOCLADIUS Hirvenoja, 1973
Halocladius variabilis (Staeger, 1839)
HELENIELLA Gowin, 1943
Heleniella ornatcollis (Edwards, 1929)
Heleniella serratosioi Ringe, 1976
HETEROTANYTARSUS Spärck, 1923
Heterotanytarsus apicalis (Kieffer, 1921)
Heterotanytarsus brundini Fittkau, 1956
Heterotanytarsus sp. 1
HETEROTRISSOCLADIUS Spärck, 1923
Heterotrissocladius brundini Sæther & Schnell, 1988
Heterotrissocladius grimshawi (Edwards, 1929)
Heterotrissocladius maeaeri Brundin, 1949
Heterotrissocladius marcidus (Walker, 1856)
Heterotrissocladius subpilosus (Kieffer, 1911)
Heterotrissocladius sp. 1 "Kolmperä"
HYDROBAENUS Fries, 1830
Hydrobaenus conformis (Holmgren, 1869)
Hydrobaenus fusistylus (Goetghebuer, 1933)
Hydrobaenus lapponicus (Brundin, 1956)
Hydrobaenus martini Sæther, 1976
Hydrobaenus pilipes (Malloch, 1915)
Hydrobaenus spinnatis Sæther, 1976
Hydrobaenus(?) sp. 1
HYDROSMITTIA Ferrington & Sæther, 2011
Hydrosmittia oxoniana (Edwards, 1922)
 = *recta* (Edwards, 1929)
Hydrosmittia ruttneri (Strenzke & Thienemann, 1942)
 = *brevitarsis* (Brundin, 1947)
KRENOSMITTIA Thienemann & Krüger, 1939
Krenosmittia boreoalpina (Goetghebuer, 1944)
Krenosmittia camptophleps (Edwards, 1929)

Krenosmittia halvorseni (Cranston & Sæther, 1986)

LAPPOKIEFFERIELLA Tuiskunen, 1986

Lappokiefferiella platytarsus Tuiskunen, 1986

LIMNOPHYES Eaton, 1875

Limnophyes aagaardi Sæther, 1990

Limnophyes angelicae Sæther, 1990

Limnophyes asquamatus Soegaard Andersen, 1937

= *smolandicus* Brundin, 1947

Limnophyes bidumus Sæther, 1990

Limnophyes sp., pr. *bidumus*

Limnophyes brachytomus (Kieffer, 1922)

Limnophyes difficilis Brundin, 1947

Limnophyes edwardsi Sæther, 1990

Limnophyes er Sæther, 1985

Limnophyes habilis (Walker, 1856)

= *truncorum* Goetghebuer, 1921

Limnophyes margaretae Sæther, 1975

Limnophyes minimus (Meigen, 1818)

= *exiguus* (Goetghebuer, 1913)

Limnophyes natalensis (Kieffer, 1914)

Limnophyes ninae Sæther, 1975

Limnophyes pentaplastus (Kieffer, 1921)

Limnophyes pumilio (Holmgren, 1869)

= *globifer* Lundström, 1915

Limnophyes sp., pr. *pumilio*

Limnophyes schnelli Sæther, 1990

Limnophyes spinigus Sæther, 1990

Limnophyes torulus Sæther, 1990

MESOCRICOTOPUS Brundin, 1956

Mesocricotopus thienemanni (Goetghebuer, 1940)

MESOSMITTIA Brundin, 1956

Mesosmittia flexuella (Edwards, 1929)

METRIOCNEMUS van der Wulp, 1874

Metriocnemus acutus Sæther, 1995

Metriocnemus albolineatus (Meigen, 1818)

= *atratus* (Zetterstedt, 1850)

Metriocnemus atriclava Kieffer, 1921

Metriocnemus beringensis (Cranston & Oliver, 1988)

Metriocnemus caudigus Sæther, 1995

Metriocnemus corticalis Strenzke, 1950

Metriocnemus eurynotus (Holmgren, 1883)

= *hygropetricus* Kieffer, 1912

Metriocnemus exilacies Sæther, 1995

- Metriocnemus fuscipes* (Meigen, 1818)
Metriocnemus intergerivus Sæther, 1995
Metriocnemus picipes (Meigen, 1818)
Metriocnemus ursinus (Holmgren, 1869)
NANOCLADIUS Kieffer, 1913
 = **Microcricotopus** Thienemann & Harnisch, 1932
Nanocladius balticus (Palmén, 1959)
Nanocladius dichromus (Kieffer, 1906)
 = *bicolor* (Zetterstedt, 1838) nom. nudum
Nanocladius parvulus (Kieffer, 1909)
Nanocladius rectinervis (Kieffer, 1911)
ORTHOCLADIUS van der Wulp, 1874
sg. Eudactylocladius Thienemann, 1935
Orthocladius fuscimanus (Kieffer, 1908)
Orthocladius gelidorum (Kieffer, 1923)
Orthocladius gelidus Kieffer, 1922
Orthocladius musester Sæther, 2004
Orthocladius olivaceus (Kieffer, 1911)
 = *mixtus* auct., partim
Orthocladius priomixtus Sæther, 2004
 = *mixtus* auct., partim
sg. Euorthocladius Thienemann, 1935
Orthocladius abiskoensis Thienemann & Krüger, 1937
Orthocladius cf. *annellae* Sæther, 2005
Orthocladius ashei Sponis, 1990
Orthocladius rivicola Kieffer, 1911
Orthocladius rivulorum Kieffer, 1909
Orthocladius saxosus (Tokunaga, 1939)
Orthocladius telochaetus Langton, 1985
sg. Mesorthocladius Sæther, 2005
Orthocladius frigidus (Zetterstedt, 1838)
sg. Orthocladius van der Wulp, 1874
Orthocladius decoratus (Holmgren, 1869)
Orthocladius dentifer Brundin, 1947
Orthocladius excavatus Brundin, 1947
Orthocladius lapponicus Goetghebuer, 1940
Orthocladius nitidoscutellatus Lundström, 1915
Orthocladius oblidens (Walker, 1856)
Orthocladius pedestris Kieffer, 1909
Orthocladius rhyacobi Kieffer, 1911
Orthocladius rubicundus (Meigen, 1818)
 = *saxicola* Kieffer, 1911
Orthocladius wetterensis Brundin, 1956

- sg. Pogonocladius** Brundin, 1956
Orthocladius consobrinus (Holmgren, 1869)
- sg. Symposiocladius** Cranston, 1982
Orthocladius holsatus Goetghebuer, 1937
Orthocladius lignicola Kieffer, 1914
Orthocladius ruffoi Rossaro & Prato, 1991
Orthocladius schnelli Sæther, 2004
Orthocladius smolandicus Brundin, 1947
- PARACHAETOCLADIUS** Wülker, 1959
Parachaetocladius abnobaeus (Wülker, 1959)
- PARACLADIUS** Hirvenoja, 1973
Paracladius alpicola (Zetterstedt, 1850)
Paracladius conversus (Walker, 1856)
Paracladius quadrinodosus Hirvenoja, 1973
- PARACRICOTOPUS** Brundin, 1956
Paracricotopus niger (Kieffer, 1913)
Paracricotopus uliginosus (Brundin, 1947)
- PARAKIEFFERIELLA** Thienemann, 1936
Parakiefferiella bathophila (Kieffer, 1912)
Parakiefferiella bilobata Tuiskunen, 1986
Parakiefferiella coronata (Edwards, 1929)
Parakiefferiella fennica Tuiskunen, 1986
Parakiefferiella finnmarkica Tuiskunen, 1986
Parakiefferiella gynocera (Edwards, 1937)
Parakiefferiella minuta Tuiskunen, 1986
Parakiefferiella nigra Brundin, 1949
Parakiefferiella scandica Brundin, 1956
Parakiefferiella smolandica (Brundin, 1947)
Parakiefferiella subaterrima (Malloch, 1915)
= *torulata* Sæther, 1969
- PARALIMNOPHYES** Brundin, 1956
Paralimnophyes longiseta (Thienemann, 1919)
= *hydrophilus* (Goetghebuer, 1921)
- PARAMETRIOCNEMUS** Goetghebuer, 1932
Parametriocnemus boreoalpinus Gowin & Thienemann, 1942
Parametriocnemus stylatus (Spärck, 1923)
Parametriocnemus sp. 1
- PARAPHAENOCLADIUS** Thienemann, 1924
Paraphaenocladius exagitans (Johannsen, 1905)
Paraphaenocladius sp., pr. *exagitans*
Paraphaenocladius impensus (Walker, 1856)
Paraphaenocladius intercedens Brundin, 1947
Paraphaenocladius sp., pr. *intercedens*

- Paraphaenocladus irritus* (Walker, 1856)
Paraphaenocladus pseudirritus Strenzke, 1950
Paraphaenocladus triangulus Sæther & Wang, 1995
PARASMITTIA Strenzke, 1950
Parasmittia carinata Strenzke, 1950
Parasmittia sp. 1 "Luukki"
PARATRICHOCADIUS Santos Abreu, 1918
Paratrichocladus rufiventris (Meigen, 1830)
Paratrichocladus skirwithensis (Edwards, 1929)
PARATRISSOCLADIUS Závřel, 1937
Paratrissocladius excerptus (Walker, 1856)
PROPSILOCERUS Kieffer, 1923
 = *Synpsilocerus* Kieffer, 1923
 = *Tokunagayusurika* Sasa, 1978
Propsilocerus jacuticus (Zvereva, 1950)
Propsilocerus komensis (Zvereva, 1950)
 ?= *paradoxus* (Lundström, 1915)
Propsilocerus saetheri Wang, Liu & Paasivirta, 2007
PROSMITTIA Brundin, 1956
Prosmittia jemtlandica (Brundin, 1947)
Prosmittia rectangularis Tuiskunen, 1985
PSECTROCLADIUS Kieffer, 1906
sg. Allopsectrocladius Wülker, 1956
Psectrocladius conjungens (Brundin, 1947)
Psectrocladius obivius (Walker, 1856)
Psectrocladius platypus (Edwards, 1929)
sg. Mesopsectrocladius Laville, 1971
Psectrocladius barbatipes Kieffer, 1923
sg. Monopsectrocladius Wülker, 1956
Psectrocladius calcaratus (Edwards, 1929)
sg. Psectrocladius Kieffer, 1906
Psectrocladius barbimanus (Edwards, 1929)
Psectrocladius bisetus Goetghebuer, 1942
Psectrocladius fennicus Storå, 1939
Psectrocladius limbatellus (Holmgren, 1869)
 = *edwardsi* Brundin, 1949
Psectrocladius octomaculatus Wülker, 1956
Psectrocladius oligosetus Wülker, 1956
Psectrocladius oxyura Langton, 1985
Psectrocladius psilopterus (Kieffer, 1906)
Psectrocladius schlienzi Wülker, 1956
Psectrocladius sordidellus (Zetterstedt, 1838)
Psectrocladius ventricosus Kieffer, 1925

- Psectrocladius zetterstedti* Brundin, 1949
PSEUDORTHOCLADIUS Goetghebuer, 1943
Pseudorthocladius curtistylus (Goetghebuer, 1921)
Pseudorthocladius filiformis (Kieffer, 1908)
Pseudorthocladius pilosipennis Brundin, 1956
PSEUDOSMITTIA Edwards, 1932
Pseudosmittia albipennis (Goetghebuer, 1921)
Pseudosmittia angusta (Edwards, 1929)
Pseudosmittia danconai (Marcuzzi, 1947)
Pseudosmittia forcipata (Goetghebuer, 1921)
Pseudosmittia sp., pr. *forcipata*
Pseudosmittia gracilis (Goetghebuer, 1913)
Pseudosmittia mathildae Albu, 1968
Pseudosmittia obtusa Strenzke, 1960
Pseudosmittia trilobata (Edwards, 1929)
PSILOMETRIOCNEMUS Sæther, 1969
Psilometriocnemus europaeus Tuiskunen, 1985
RHEOCRICOTOPUS Brundin, 1956
sg. *Psilocricotopus* Sæther, 1986
Rheocricotopus atripes (Kieffer, 1913)
= *foveatus* (Edwards, 1929)
Rheocricotopus chalybeatus (Edwards, 1929)
Rheocricotopus chapmani (Edwards, 1935)
Rheocricotopus glabricollis (Meigen, 1830)
sg. *Rheocricotopus* Brundin, 1956
Rheocricotopus effusus (Walker, 1856)
Rheocricotopus fuscipes (Kieffer, 1909)
= *dispar* (Goetghebuer, 1913)
Rheocricotopus reduncus Sæther & Schnell, 1988
Rheocricotopus sp., pr. *unidentatus* Sæther & Schnell, 1988
RHEOSMITTIA Brundin, 1986
Rheosmittia languida (Brundin, 1956)
Rheosmittia spinicornis (Brundin, 1956)
SMITTIA Holmgren, 1869
Smittia alpilonga Rossaro & Lencioni, 2000
Smittia cf. *amoena* Caspers, 1988
Smittia aterrima (Meigen, 1818)
Smittia sp., pr. *aterrima*
Smittia betuletorum Edwards, 1941
Smittia contingens (Walker, 1856)
Smittia edwardsi Goetghebuer, 1932
Smittia foliacea (Kieffer, 1921)
Smittia leucopogon (Meigen, 1804)

- Smittia nudipennis* (Goetghebuer, 1913)
Smittia paranudipennis Brundin, 1947
Smittia pratorum (Goetghebuer, 1927)
Smittia scutellosetosa Caspers, 1988
Smittia stercoraria Rossaro & Lencioni, 2000
Smittia sp. 1 s. Tuiskunen
Smittia sp., pr. sp. 1
Smittia sp. 2 ”Jehkats”
STACKELBERGINA Shilova & Zelentsov, 1978
Stackelbergina praeclara Shilova & Zelentsov, 1978
STILOCLADIUS Rossaro, 1979
Stilocladius intermedius Wang, 1998
SYNORTHOCLADIUS Thienemann, 1935
Synorthocladius semivirens (Kieffer, 1909)
TAVASTIA Tuiskunen, 1985
Tavastia australis Tuiskunen, 1985
Tavastia yggdrasilia Brodin, Lundström & Paasivirta, 2008
THIENEMANNIA Kieffer, 1909
Thienemannia gracilis Kieffer, 1909
Thienemannia paasivirtai Tuiskunen, 1986
THIENEMANNIELLA Kieffer, 1911
Thienemanniella acuticornis (Kieffer, 1912)
Thienemanniella clavicornis (Kieffer, 1911)
Thienemanniella majuscula (Edwards, 1924)
Thienemanniella minuscula (Brundin, 1949)
Thienemanniella obscura Brundin, 1947
Thienemanniella vittata (Edwards, 1924)
Thienemanniella sp., pr. *vittata*
TOKUNAGAIA Sæther, 1973
Tokunagaia excellens (Brundin, 1956)
Tokunagaia parexcellens Tuiskunen, 1986
Tokunagaia rectangularis (Goetghebuer, 1940)
Tokunagaia scutellata (Brundin, 1956)
Tokunagaia tonollii (Rossaro, 1983)
TRISSOCLADIUS Kieffer, 1908
Trissocladius brevipalpis Kieffer, 1908
TVETENIA Kieffer, 1922
Tvetenia bavarica (Goetghebuer, 1934)
Tvetenia calvescens (Edwards, 1929)
Tvetenia discoloripes (Goetghebuer & Thienemann, 1936)
Tvetenia duodenaria Kieffer, 1922
= *saanensis* (Wülker, 1959)
Tvetenia verralli (Edwards, 1929)

?= *tshernovskii* (Pankratova, 1968)

VIVACRICOTOPUS Schnell & Sæther, 1988

Vivacricotopus ablusus Schnell & Sæther, 1988

ZALUTSCHIA Lipina, 1939

Zalutschia cf. *humphriesiae* Dowling & Murray, 1980

Zalutschia mallae Tuiskunen, 1986

Zalutschia mucronata (Brundin, 1949)

Zalutschia tatrlica (Pagast, 1935)

Zalutschia tornetraeskensis (Edwards & Thienemann, 1941)

Zalutschia zalutschicola Lipina, 1939

genus unknown

Orthoclaadiinae sp. 1 "Outajärvi"

Orthoclaadiinae sp. 2 "Pallas"

Orthoclaadiinae sp. 3 "Kaldoaivi"

CHIRONOMINAE Newman, 1834

tribe Chironomini Newman, 1834

BENTHALIA Lipina, 1939

Benthalia carbonaria (Meigen, 1804)

= *dissidens* (Walker, 1856)

CHIRONOMUS Meigen, 1803

sg. *Chaetolabis* Townes, 1945

Chironomus macani Freeman, 1948

sg. *Chironomus* Meigen, 1803

Chironomus acerbus Hirvenoja, 1962

Chironomus acutiventris Wülker, Ryser & Scholl, 1983

Chironomus agilis Shobanov & Dyomin, 1988

Chironomus annularius Meigen, 1818

Chironomus anthracinus Zetterstedt, 1860

Chironomus aprilinus Meigen, 1818

Chironomus beljaninae Wülker, 1991

Chironomus borokensis Kerkis, Filippova, Shobanov, Gunderina & Kiknadze, 1988

Chironomus brevidentatus Hirvenoja & Michailova, 1998

Chironomus cingulatus Meigen, 1830

Chironomus clarus Hirvenoja, 1962

Chironomus coetaneus Hirvenoja, 1998

Chironomus dorsalis Strenzke, 1959

Chironomus entis Shobanov, 1989

Chironomus esai Wülker, 1997

Chironomus fraternus Wülker, 1991

Chironomus heteropilicornis Wülker, 1996

? *Chironomus hyperboreus* Staeger, 1845

Chironomus inermifrons Goetghebuer, 1921

Chironomus islandicus (Kieffer, 1913)

- Chironomus jonmartini* Lindeberg, 1979) coll.
 = *neglectus* Lindeberg, 1960 preocc.
Chironomus longistylus Goetghebuer, 1921
Chironomus lugubris Zetterstedt, 1850
Chironomus luridus Strenzke, 1959
Chironomus melanescens Keyl, 1961
Chironomus melanotus Keyl, 1961
Chironomus muratensis Ryser, Scholl & Wülker, 1983
Chironomus neocorax Wülker & Butler, 1983
Chironomus pallidivittatus Edwards, 1929
Chironomus piger Strenzke, 1956
Chironomus pilicornis (Fabricius, 1787)
Chironomus plumosus (Linnaeus, 1758)
Chironomus pseudothummi Strenzke, 1959 coll.
Chironomus riihimakiensis Wülker, 1973
Chironomus riparius Meigen, 1804
Chironomus salinarius Kieffer, 1915
Chironomus saxatilis Wülker, Ryser & Scholl, 1981 coll.
Chironomus sollicitus Hirvenoja, 1962
Chironomus sororius Wülker, 1973
 ? *Chironomus staegeri* Lundbeck, 1898
Chironomus tentans Fabricius, 1805
Chironomus tenuistylus Brundin, 1949
sg. *Lobochironomus* Ryser, Wülker & Scholl, 1985
Chironomus dorsalis Meigen, 1818
 = *longipes* Staeger, 1839 as *Einfeldia*
Chironomus improvidus Hirvenoja, 1998
Chironomus mendax Storå, 1936
Chironomus storai Goetghebuer, 1954
 = *luctuosus* Storå, 1936 preocc.
CLADOPELMA Kieffer, 1921
Cladopelma bicarinatum (Brundin, 1947)
Cladopelma edwardsi (Kruseman, 1933)
Cladopelma goetghebueri Spies & Sæther, 2004
 = *lateralis* (Goetghebuer, 1934) preocc.
Cladopelma virescens (Meigen, 1818)
Cladopelma viridulum (Linnaeus, 1767)
CRYPTOCHIRONOMUS Kieffer, 1918
Cryptochironomus albofasciatus (Staeger, 1839)
Cryptochironomus denticulatus (Goetghebuer, 1921)
Cryptochironomus obreptans (Walker, 1856)
Cryptochironomus psittacinus (Meigen, 1830)
Cryptochironomus redekei (Kruseman, 1933)

Cryptochironomus rostratus Kieffer, 1921
Cryptochironomus supplicans (Meigen, 1830)
Cryptochironomus ussouriensis (Goetghebuer, 1933)
 = *nigridentis* Chernovskij, 1949

CRYPTOTENDIPES Beck & Beck, 1969

Cryptotendipes darbyi (Sublette, 1960)
Cryptotendipes pflugfelderi Reiss, 1964
Cryptotendipes pseudotener (Goetghebuer, 1922)
Cryptotendipes usmaensis (Pagast, 1931)

DEMEIJERIA Kruseman, 1933

Demeijeria rufipes (Linnaeus, 1761)

DEMICRYPTOCHIRONOMUS Lenz, 1941

sg. *Demicryptochironomus* Lenz, 1941
Demicryptochironomus vulneratus (Zetterstedt, 1838)
Demicryptochironomus sp. Pe 1 Langton, 1991

sg. *Irmakia* Reiss, 1988

Demicryptochironomus neglectus Reiss, 1988

DICROTENDIPES Kieffer, 1913

= ***Limnochironomus*** Kieffer, 1920

Dicrotendipes lobiger (Kieffer, 1921)
Dicrotendipes nervosus (Staeger, 1839)
Dicrotendipes notatus (Meigen, 1818)
Dicrotendipes pulsus (Walker, 1856)
 = *objectans* (Walker, 1856)

Dicrotendipes tritomus (Kieffer, 1916)

EINFELDIA Kieffer, 1924

Einfeldia pagana (Meigen, 1838)

Einfeldia pectoralis Kieffer, 1924

ENDOCHIRONOMUS Kieffer, 1918

Endochironomus albipennis (Meigen, 1830)
Endochironomus stackelbergi Goetghebuer, 1935
Endochironomus tendens (Fabricius, 1775)

GLYPTOTENDIPES Kieffer, 1913

sg. *Caulochironomus* Heyn, 1993

Glyptotendipes aequalis (Kieffer, 1922)
Glyptotendipes caulicola (Kieffer, 1913)
Glyptotendipes imbecilis (Walker, 1856)
 = *severini* (Goetghebuer, 1923)

Glyptotendipes scirpi (Kieffer, 1915)

= *fodiens* (Kieffer, 1924)

= *mancunianus* (Edwards, 1929)

Glyptotendipes viridis (Macquart, 1834)

sg. *Glyptotendipes* Kieffer, 1913

- Glyptotendipes barbipes* (Staeger, 1839)
Glyptotendipes cauliginellus (Kieffer, 1913)
 = *gripekoveni* (Kieffer, 1913)
Glyptotendipes glaucus (Meigen, 1818)
Glyptotendipes pallens (Meigen, 1804)
Glyptotendipes paripes (Edwards, 1929)
sg. Heynotendipes Spies & Sæther, 2004
Glyptotendipes signatus (Kieffer, 1909)
HARNISCHIA Kieffer, 1921
Harnischia curtilamellata (Malloch, 1915)
Harnischia fuscimana Kieffer, 1921
KIEFFERULUS Goetghebuer, 1922
Kiefferulus tendipediformis (Goetghebuer, 1921)
KLOOSIA Kruseman, 1933
Kloosia pusilla (Linnaeus, 1767)
LAUTERBORNIELLA Thienemann & Bause, 1913
Lauterborniella agrayloides (Kieffer, 1911)
LIPINIELLA Shilova, 1961
 ? *Lipiniella araenicola* Shilova, 1961 (larval ident.)
Lipiniella prima Shilova, Kerkis & Kiknadze, 1993
MICROCHIRONOMUS Kieffer, 1918
Microchironomus tener (Kieffer, 1918)
MICROTENDIPES Kieffer, 1915
Microtendipes brevitarsis Brundin, 1947
Microtendipes chloris (Meigen, 1818)
Microtendipes confinis (Meigen, 1830)
Microtendipes nigellus Hirvenoja, 1963
Microtendipes pedellus (De Geer, 1776)
Microtendipes rydalensis (Edwards, 1929)
NILOTHAUMA Kieffer, 1921
Nilothauma brayi (Goetghebuer, 1921)
OMISUS Townes, 1945
Omisus caledonicus (Edwards, 1932)
PAGASTIELLA Brundin, 1949
Pagastiella orophila (Edwards, 1929)
PARACHIRONOMUS Lenz, 1921
Parachironomus biannulatus (Staeger, 1839)
Parachironomus digitalis (Edwards, 1929)
Parachironomus frequens (Johannsen, 1905)
Parachironomus gracilior (Kieffer, 1918)
 = *arcuatus* (Goetghebuer, 1919)
Parachironomus monochromus (van der Wulp, 1874)
Parachironomus paradigitalis Brundin, 1949

Parachironomus parilis (Walker, 1856)
Parachironomus cf. *pseudovarus* Zorina, 2003
Parachironomus siljanensis Brundin, 1949
Parachironomus subalpinus (Goetghebuer, 1932)
Parachironomus tenuicaudatus (Malloch, 1915)
Parachironomus varus (Goetghebuer, 1921)
Parachironomus vitiosus (Goetghebuer, 1921)
Parachironomus sp. 1 “Iijoki”

PARACLADOPELMA Harnisch, 1923
Paracladopelma camptolabis (Kieffer, 1913)
Paracladopelma galaptera (Townes, 1945)
Paracladopelma laminatum (Kieffer, 1921)
Paracladopelma nereis (Townes, 1945)
Paracladopelma nigriritulum (Goetghebuer, 1942)
Paracladopelma undine (Townes, 1945)

PARALAUTERBORNIELLA Lenz, 1941
Paralauterborniella nigrohalteralis (Malloch, 1915)

PARATENDIPES Kieffer, 1911
Paratendipes albimanus (Meigen, 1818)
Paratendipes subaequalis (Malloch, 1915)
Paratendipes conn. no. 3 Lipina, 1926 (larval type)

PHAENOPSECTRA Kieffer, 1921
Phaenopsectra flavipes (Meigen, 1818)
Phaenopsectra punctipes (Wiedemann, 1817)

POLYPEDILUM Kieffer, 1912
sg. Pentapedilum Kieffer, 1913
Polypedilum sordens (van der Wulp, 1874)
Polypedilum tritum (Walker, 1856)
 ? = *uncinatum* (Goetghebuer, 1921)

sg. Polypedilum Kieffer, 1912
Polypedilum acutum Kieffer, 1915
Polypedilum albicorne (Meigen, 1838)
Polypedilum amoenum Goetghebuer, 1930
Polypedilum arundineti (Goetghebuer, 1921)
Polypedilum laetum (Meigen, 1818)
Polypedilum nubeculosum (Meigen, 1804)
Polypedilum pedestre (Meigen, 1830)
Polypedilum trigonus Townes, 1945
sg. Tripodura Townes, 1945
Polypedilum aegyptium Kieffer, 1925
Polypedilum bicrenatum Kieffer, 1921
Polypedilum pullum (Zetterstedt, 1838)
Polypedilum quadriguttatum Kieffer, 1921

- Polypedilum scalaenum* (Schrank, 1803)
Polypedilum tetracrenatum Hirvenoja, 1962
sg. Uresipedilum Sasa & Kikuchi, 1995
Polypedilum convictum (Walker, 1856)
Polypedilum cultellatum Goetghebuer, 1931
ROBACKIA Sæther, 1977
Robackia pilicauda Sæther, 1977
 ? *Robackia demejerei* (Kruseman, 1933) (larval ident.)
SAETHERIA Jackson, 1977
Saetheria reissi Jackson, 1977
SERGENTIA Kieffer, 1922
Sergentia baueri Wülker, Kiknadze, Kerkis & Nevers, 1999
Sergentia coracina (Zetterstedt, 1850)
Sergentia prima Proviz & Proviz, 1997
STENOCHIRONOMUS Kieffer, 1919
sg. Petalopholeus Borkent, 1984
Stenochironomus fascipennis (Zetterstedt, 1838)
sg. Stenochironomus Kieffer, 1919
Stenochironomus gibbus (Fabricius, 1794)
Stenochironomus hibernicus (Edwards, 1929)
STICTOCHIRONOMUS Kieffer, 1919
Stictochironomus crassiforceps (Kieffer, 1921)
Stictochironomus maculipennis (Meigen, 1818)
Stictochironomus pictulus (Meigen, 1830)
Stictochironomus rosenschoeldi (Zetterstedt, 1838)
Stictochironomus sticticus (Fabricius, 1781)
SYNENDOTENDIPES Grodhaus, 1987
Synendotendipes dispar (Meigen, 1830)
Synendotendipes impar (Walker, 1856)
Synendotendipes lepidus (Meigen, 1830)
TRIBELOS Townes, 1945
Tribelos cf. *donatoris* (Shilova, 1974)
 ?= *subatrum* Grodhaus, 1987
Tribelos intextum (Walker, 1856)
XENOCHIRONOMUS Kieffer, 1921
Xenochironomus xenolabis (Kieffer, 1916)
ZAVRELIELLA Kieffer, 1920
Zavreliella marmorata (van der Wulp, 1859)
 tribe Pseudochironomini Sæther, 1977
PSEUDOCHIRONOMUS Malloch, 1915
Pseudochironomus prasinatus (Staeger, 1839)
 tribe Tanytarsini Zavřel, 1917
CLADOTANYTARSUS Kieffer, 1921

- sg. *Cladotanytarsus*** Kieffer, 1921
Cladotanytarsus atridorsum Kieffer, 1924
Cladotanytarsus cyrylae Gilka, 2001
Cladotanytarsus difficilis Brundin, 1947
Cladotanytarsus gedanicus Gilka, 2001
Cladotanytarsus iucundus Hirvenoja, 1962
Cladotanytarsus lepidocalcar Krüger, 1938
Cladotanytarsus mancus (Walker, 1856)
Cladotanytarsus matthei Gilka, 2001
Cladotanytarsus molestus Hirvenoja, 1962
Cladotanytarsus nigrovittatus (Goetghebuer, 1922)
Cladotanytarsus pallidus Kieffer, 1922
Cladotanytarsus teres Hirvenoja, 1962
Cladotanytarsus vanderwulpi (Edwards, 1929)
- sg. *Lenziella*** Kieffer, 1922
Cladotanytarsus amandus Hirvenoja, 1962
Cladotanytarsus bicornutus Kieffer, 1922
= *wexionensis* Brundin, 1947
- CONSTEMPELLINA** Brundin, 1947
Constempellina brevicosta (Edwards, 1937)
- CORYNOCERA** Zetterstedt, 1837
Corynocera ambigua Zetterstedt, 1837
Corynocera oliveri Lindeberg, 1970
- MICROPECTRA** Kieffer, 1908
= ***Lauterbornia*** Kieffer, 1911
= ***Lundstroemia*** Kieffer, 1921
= ***Parapsectra*** Reiss, 1969
Micropsectra appendica Stur & Ekrem, 2006
Micropsectra apposita (Walker, 1856)
Micropsectra atrofasciata (Kieffer, 1911)
Micropsectra attenuata Reiss, 1969
Micropsectra calcifontis Stur & Ekrem, 2006
Micropsectra chionophila (Edwards, 1933)
Micropsectra insignilobus Kieffer, 1924
Micropsectra junci (Meigen, 1818)
Micropsectra klinki Stur & Ekrem, 2006
Micropsectra lacustris Säwedäl, 1975
Micropsectra lindebergi Säwedäl, 1976
Micropsectra logani (Johannsen, 1928)
= *groenlandica* Soegaard Andersen, 1937
Micropsectra malla Gilka & Paasivirta, 2008
Micropsectra nana (Meigen, 1818)
Micropsectra notescens (Walker, 1856)

- Micropsectra pallidula* (Meigen, 1830)
= *bidentata* auct.
- Micropsectra radialis* Goetghebuer, 1939
= *coracina* (Kieffer, 1911)
- Micropsectra recurvata* Goetghebuer, 1928
- Micropsectra rilensis* Gilka, 2001
- Micropsectra roseiventris* (Kieffer, 1909)
= *fusca* auct. nec (Meigen, 1804)
- Micropsectra schrankelae* Stur & Ekrem, 2006
- Micropsectra sofiae* Stur & Ekrem, 2006
- Micropsectra styriaca* Reiss, 1969
- NEOZAVRELIA** Goetghebuer & Thienemann, 1941
- Neozavrelia cuneipennis* (Edwards, 1929)
- PARATANYTARSUS** Thienemann & Bause, 1913
- Paratanytarsus abiskoensis* Reiss & Säwedal, 1981
- Paratanytarsus austriacus* (Kieffer, 1924)
- Paratanytarsus bituberculatus* (Edwards, 1929)
- Paratanytarsus brevicar* (Kieffer, 1909)
= *intricatus* (Goetghebuer, 1921)
- Paratanytarsus dimorphis* Reiss, 1965
- Paratanytarsus dissimilis* (Johannsen, 1905)
= *confusus* Palmén, 1960
- Paratanytarsus grimmii* (Schneider, 1885)
= *boiemicus* Bause, 1913
- Paratanytarsus hyperboreus* Brundin, 1949
- Paratanytarsus inopertus* (Walker, 1856)
- Paratanytarsus laccophilus* (Edwards, 1929)
- Paratanytarsus laetipes* (Zetterstedt, 1850)
- Paratanytarsus lauterborni* (Kieffer, 1909)
- Paratanytarsus natvigi* (Goetghebuer, 1933)
- Paratanytarsus paralaccophilus* Gilka & Paasivirta, 2008
- Paratanytarsus penicillatus* (Goetghebuer, 1928)
- Paratanytarsus tenellulus* (Goetghebuer, 1921)
- Paratanytarsus tenuis* (Meigen, 1830)
- RHEOTANYTARSUS** Thienemann & Bause, 1913
- Rheotanytarsus curtistylus* (Goetghebuer, 1921)
- Rheotanytarsus muscicola* Thienemann, 1929
- Rheotanytarsus pellucidus* (Walker, 1848)
= *distinctissimus* (Brundin, 1947)
- Rheotanytarsus pentapoda* (Kieffer, 1909)
- Rheotanytarsus photophilus* (Goetghebuer, 1921)
- Rheotanytarsus ringei* Lehmann, 1970
- STEMPELLINA** Thienemann & Bause, 1913

- Stempellina almi* Brundin, 1947
Stempellina bausei (Kieffer, 1911)
Stempellina subglabripennis (Brundin, 1947)
Stempellina tervolae Gilka, 2005
STEMPELLINELLA Brundin, 1947
Stempellinella brevis (Edwards, 1929)
Stempellinella edwardsi Spies & Sæther, 2004
= *minor* (Edwards, 1929) preocc.
Stempellinella flavidula (Edwards, 1929)
Stempellinella saltuum (Goetghebuer, 1921)
TANYTARSUS van der Wulp, 1874
Tanytarsus aberrans Lindeberg, 1970
Tanytarsus aculeatus Brundin, 1949
Tanytarsus anderseni Reiss & Fittkau, 1971
Tanytarsus bathophilus Kieffer, 1911
= *tripunctatus* Reiss, 1968
Tanytarsus brundini Lindeberg, 1963
Tanytarsus buchonius Reiss & Fittkau, 1971
Tanytarsus chinyensis Goetghebuer, 1934
Tanytarsus curticornis Kieffer, 1911
Tanytarsus debilis (Meigen, 1830)
Tanytarsus desertor Gilka & Paasivirta, 2007
Tanytarsus dibranchius Kieffer, 1926
= *separabilis* Brundin, 1947
Tanytarsus dispar Lindeberg, 1967
Tanytarsus eminulus (Walker, 1856)
Tanytarsus excavatus Edwards, 1929
Tanytarsus fennicus Lindeberg, 1970
Tanytarsus gibbosiceps Kieffer, 1922
Tanytarsus glabrescens Edwards, 1929
Tanytarsus gracilentus (Holmgren, 1883)
Tanytarsus gregarius Kieffer, 1909
Tanytarsus heusdensis Goetghebuer, 1923
Tanytarsus inaequalis Goetghebuer, 1921
Tanytarsus innarensis Brundin, 1947
Tanytarsus lactescens Edwards, 1929
Tanytarsus lapponicus Lindeberg, 1970
Tanytarsus latiforceps Edwards, 1941
Tanytarsus lestagei Goetghebuer, 1922
= *decipiens* Lindeberg, 1967
= *palmeni* Lindeberg, 1967
Tanytarsus longitarsis Kieffer, 1911

- Tanytarsus lugens* (Kieffer, 1916)
Tanytarsus mancospinosus Ekrem & Reiss, 1999
Tanytarsus medius Reiss & Fittkau, 1971
Tanytarsus mendax Kieffer, 1925
 = *holochlorus* Edwards, 1929
Tanytarsus miriforceps (Kieffer, 1921)
Tanytarsus multipunctatus Brundin, 1947
Tanytarsus nemorosus Edwards, 1929
Tanytarsus niger Soegaard Andersen, 1937
Tanytarsus norvegicus (Kieffer, 1924)
Tanytarsus occultus Brundin, 1949
Tanytarsus palettaris Verneaux, 1969
Tanytarsus pallidicornis (Walker, 1856)
Tanytarsus paraniger Gilka & Paasivirta, 2008
Tanytarsus quadridentatus Brundin, 1947
Tanytarsus recurvatus Brundin, 1947
Tanytarsus salmelai Gilka & Paasivirta, 2009
Tanytarsus signatus (van der Wulp, 1859)
Tanytarsus smolandicus Brundin, 1947
Tanytarsus striatulus Lindeberg, 1976
Tanytarsus sylvaticus (van der Wulp, 1859)
 = *aptus* Hirvenoja, 1963
Tanytarsus telmaticus Lindeberg, 1959
 = *simulans* Lindeberg, 1967
 = *socialis* Lindeberg, 1967
Tanytarsus trux Gilka & Paasivirta, 2007
Tanytarsus usmaensis Pagast, 1931
Tanytarsus verralli Goetghebuer, 1928
Tanytarsus volgensis Miseiko, 1967
 = *fimbriatus* Reiss & Fittkau, 1971
VIRGATANYTARSUS Pinder, 1982
Virgatanytarsus arduennensis (Goetghebuer, 1922)
ZAVRELIA Kieffer, Thienemann & Bause, 1913
Zavrelia pentatoma Kieffer & Bause, 1913
 = *atrofasciata* Kieffer, 1921

Excluded species

The numerous species that were reported by Hackman (1980), but are excluded from the current check-list, are not listed here. Reasons for deletions of those species are various, mainly due to misidentifications and nomenclatural changes.

Notes

***Chironomus pallidivittatus* Edwards, 1929.** This name is preoccupied by *C. pallidivittatus* Malloch, 1915. The European species needs a new name.

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Checklist of the family Simuliidae (Diptera) of Finland

Jari Ilmonen¹

¹ Metsähallitus Natural Heritage Services, Vantaa, Finland

Corresponding author: Jari Ilmonen (jari.ilmonen@metsa.fi)

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Abstract

A checklist of the family Simuliidae (Diptera) is provided for Finland and recognizes 56 species. One new record has been added (*Simulium latipes*) and one name sunken in synonymy (*Simulium carpathicum*). Furthermore, *Simulium tsheburovae* is treated as a doubtful record.

Keywords

Checklist, Finland, Diptera, Simuliidae

Introduction

Simuliidae is a relatively small family of nematoceran flies, comprised of 2,163 species (2,151 living and 12 fossil) world-wide (Adler and Crosskey 2014). Numerous taxonomical confusions and different views on nomenclature between eastern and western scientists have created confusion in blackfly studies for many decades. Some taxonomical issues concerning species occurring in North Europe have been resolved by recent synonymisations (Raastad et al. 2010, Adler and Crosskey 2014). Systematics and nomenclature of the enumeration follow that of Adler and Crosskey (2014), and only the most relevant synonyms used in previous checklists for Finland are listed.

The faunistic level of knowledge in Finland is good, only few changes were made since compilation of the previous checklist (Ilmonen and Adler 2008). Few additional species can be expected to be found, and many taxonomical issues have been resolved within the last two decades.

Number of species:

World: 2151 species (Adler and Crosskey 2014)

Europe: 230 species (Adler and Crosskey 2014)

Finland: 56 species

Faunistic knowledge level in Finland: good

Checklist

Nematocera Dumeril, 1805

infraorder Culicomorpha Hennig, 1948

superfamily Chironomoidea Newman, 1834

SIMULIIDAE Newman, 1834

SIMULIINAE Newman, 1834

tribe Prosimuliini Enderlein, 1921

HELODON Enderlein, 1921

Helodon ferrugineus (Wahlberg, 1844)

PROSIMULIUM Roubaud, 1906

Prosimulium hirtipes (Fries, 1824)

Prosimulium luganicum Rubtsov, 1956

Prosimulium macropyga (Lundström, 1911)

Prosimulium ursinum (Edwards, 1935)

tribe Simuliini Newman, 1834

CNEPHIA Enderlein, 1921

Cnephia eremites Shewell, 1952

Cnephia pallipes (Fries, 1824)

= *lapponica* (Enderlein, 1921)

GRENIERA Doby & David, 1959

Greniera ivanovae Ivashchenko, 1970

METACNEPHIA Crosskey, 1969

Metacnephia bilineata (Rubtsov, 1940)

= *saileri* (Stone, 1952)

Metacnephia lyra (Lundström, 1911)

= *tabescentifrons* (Enderlein, 1929)

= *trigoniformis* Yankovsky, 2003

Metacnephia tredecimata (Edwards, 1920)

SIMULIUM Latreille, 1802

sg. Boophthora Enderlein, 1921

Simulium erythrocephalum (De Geer, 1776)

sg. Eusimulium Roubaud, 1906

Simulium angustipes Edwards, 1915

= *securiforme* (Rubtsov, 1956)

- Simulium aureum* Fries, 1824
Simulium velutinum (Santos Abreu, 1922)
sg. Boreosimulium Rubzov & Yankovsky, 1982
Simulium annulus (Lundström, 1911)
Simulium baffinense Twinn, 1936
Simulium crassum (Rubtsov, 1956)
sg. Hellichiella Rivosecchi & Cardinali, 1975
Simulium dogieli (Rubtsov, 1956)
Simulium latipes (Meigen, 1804)
Simulium usovae (Golini, 1987)
sg. Nevermannia Enderlein, 1921
 = *Cnetha* Enderlein, 1921
Simulium angustitarse (Lundström, 1911)
Simulium beltukovae (Rubtsov, 1956)
 = *carpathicum* (Knoz, 1961)
Simulium bicorne Dorogostaisky, Rubtsov & Vlasenko, 1935
Simulium cryophilum (Rubtsov, 1959)
 = *carthusiense* f. *brevicaulis* Dorier & Grenier, 1961
Simulium curvans (Rubtsov & Carlsson, 1965)
Simulium dendrofilum (Patrusheva, 1962)
Simulium fontinale Radzivilovskaya, 1948
Simulium juxtacrenobium Bass & Brockhouse, 1990
Simulium lundstromi (Enderlein, 1921)
Simulium silvestre (Rubtsov, 1956)
Simulium vernum Macquart, 1826
 = *pritzkowi* (Enderlein, 1926)
sg. Schoenbaueria Enderlein, 1921
Simulium pusillum Fries, 1824
Simulium subpusillum Rubtsov, 1940
sg. Simulium Latreille, 1802
Simulium annulitarse Zetterstedt, 1838
Simulium argyreatum Meigen, 1838
Simulium frigidum Rubtsov, 1940
Simulium intermedium Roubaud, 1906
Simulium longipalpe Belyukova, 1955
 = *curvistylus* Rubtsov, 1957
Simulium monticola Friederichs, 1920
Simulium morsitans Edwards, 1915
Simulium murmanum Enderlein, 1935
 = *forsi* (Carlsson, 1962)
Simulium noelleri Friederichs, 1920
Simulium ornatum Meigen, 1818
Simulium paramorsitans Rubtsov, 1956

- Simulium posticatum* Meigen, 1838
 = *austeni* Edwards, 1915
 = *verecundum* misid.
- Simulium reptans* (Linnaeus, 1758)
- Simulium rostratum* (Lundström, 1911)
 = *sublacustre* Davies, 1966
- Simulium rubtzovi* Smart, 1945
- Simulium transiens* Rubtsov, 1940
- Simulium truncatum* (Lundström, 1911)
- Simulium tuberosum* (Lundström, 1911)
- Simulium tumulosum* Rubtsov, 1956
- Simulium vulgare* Dorogostaisky, Rubtsov & Vlasenko, 1935
- sg. *Wilhelmia*** Enderlein, 1921
- Simulium equinum* (Linnaeus, 1758)
 = *zetlandense* (Davies, 1966)
- STEGOPTERNA** Enderlein, 1930
- Stegopterna trigonium* (Lundström, 1911)
 = *richteri* (Enderlein, 1930)

Excluded species

- Simulium fuscipes* (Fries, 1824) see Notes
- Simulium lineatum* (Meigen, 1804) misidentified, most likely *S. equinum*
- Simulium meigeni* Rubzov & Carlsson, 1965 see Notes
 = *pygmaeum* of some authors
- Simulium tsheburovae* (Rubtsov, 1956) see Notes

Notes

- Simulium fuscipes* (Fries, 1824).** Adler and Crosskey (2014) treat *fuscipes* as a valid species of *S. ruficorne* species group in the subgenus *Nevermannia*, but no known records exist from Finland.
- Simulium meigeni* Rubzov & Carlsson, 1965.** Adler and Crosskey (2014) recognize the identity of *S. meigeni* within the subgenus *Hellichella*, but there are no known records of this species in Finland. The name *pygmaeum* in Kuusela (1971) refers to the form of *pygmaeum* that is a synonym for *pusillum*, not *meigeni* (see Adler and Crosskey 2014).
- Simulium tsheburovae* (Rubtsov, 1956).** No confirmed records of this species exist from Finland (Raastad et al. 2010), and the name probably subsumes one or more of the existing species within the subgenus *Hellichella* (Adler and Crosskey 2014).

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Checklist of the families Anisopodidae, Bibionidae, Canthyloscelididae, Mycetobiidae, Pachyneuridae and Scatopsidae (Diptera) of Finland

Antti Haarto¹

¹ *Zoological Museum, Section of Biodiversity and Environmental Science, Department of Biology, FI-20014 University of Turku, Finland*

Corresponding author: *Antti Haarto* (ahaarto@gmail.com)

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Abstract

A checklist of the families Anisopodidae, Bibionidae, Canthyloscelididae, Mycetobiidae, Pachyneuridae and Scatopsidae (Diptera) recorded from Finland. The Finnish species of these families were last listed in 1980. After that two species of Anisopodidae, four species of Bibionidae and six species of Scatopsidae have been added to the Finnish fauna and two species of Scatopsidae have been removed from the Finnish fauna.

Keywords

Checklist, Finland, Diptera, biodiversity, faunistics

Introduction

Six families (Anisopodidae, Bibionidae, Canthyloscelididae, Mycetobiidae, Pachyneuridae and Scatopsidae) are included in this paper. All six families have been rather poorly collected and studied in Finland. Lundström (1910) published a study of the family Bibionidae. During the last one hundred years, foreign specialists have con-

Table 1. Number of species by family.

Family	Number of species in			Level of knowledge
	World (Pape et al. 2011)	Europe	Finland	
Anisopodidae	77	10	7	average
Mycetobiidae	35	4	1	average
Bibionidae	760	50	17	average
Scatopsidae	390	102	30	poor
Canthylloscelididae	16	3	3	average
Pachyneuridae	5	1	1	average

tributed the majority of the new records and taxonomic treatises. Some Anisopodidae were treated by Krivosheina and Menzel (1998, 2002) and Bibionidae by Greve and Haenni (1994) and Skartveit (1999). Finnish scatopsid records were included in the synopsis of Palaearctic Scatopsidae by Cook (1969, 1972, 1974). The genera *Anapausis* Enderlein (Chandler 1999, Haenni 1984), *Colobostema* Enderlein (Haenni 2013, Krivosheina 2001) and *Aspistes* Meigen (Krivosheina 2000) have been examined in more detail. Recently Anisopodidae (Haarto 2011) and Bibionidae (Haarto 2012) have attracted some attention in the country. The only Finnish species of Pachyneuridae, *Pachyneura fasciata* Zetterstedt, 1838, was studied by Salmela and Ilmonen (2004) and removed from the Finnish Red List. The Finnish species of all six families were last listed by Hackman (1980). The Finnish faunae of anisopodids and bibionids have been recently reviewed by Haarto (2011, 2012). The nomenclature and the number of European species are presented according to the current listing of Fauna Europaea (Beuk and Pape 2013).

Checklist

Nematocera Duméril, 1805
 infraorder Bibionomorpha Hennig, 1954
 superfamily Anisopodoidea Knab, 1912

ANISOPODIDAE Knab, 1912

SYLVICOLA Harris, 1780

= *Phryne* Meigen, 1800 suppr.

= *Rhyphus* Latreille, 1804

Sylvicola cinctus (Fabricius, 1787)

Sylvicola fenestralis (Scopoli, 1763)

Sylvicola fuscatoides Michelsen, 1999

= *fuscatus* sensu Andersson 1967, nec Fabricius

Sylvicola fuscatus (Fabricius, 1775)

Sylvicola punctatus (Fabricius, 1787)

Sylvicola stackelbergi Krivosheina & Menzel, 1998

Sylvicola zetterstedti (Edwards, 1923)

MYCETOBIIIDAE Winnertz, 1863**MYCETOBIA** Meigen, 1818*Mycetobia pallipes* Meigen, 1818

superfamily Bibionoidea Fleming, 1821

BIBIONIDAE Fleming, 1821

BIBIONINAE Fleming, 1821

BIBIO Geoffroy, 1762*Bibio brunnipes* (Fabricius, 1794)= *fulvipes* (Zetterstedt, 1838)*Bibio clavipes* Meigen, 1818*Bibio ferruginatus* (Linnaeus, 1767)*Bibio fulvicollis* Gimmerthal, 1842= *festinans* (Zetterstedt, 1850)*Bibio johannis* (Linnaeus, 1767)*Bibio lautaretensis* Villeneuve, 1925= *crassipes* Duda, 1930*Bibio longipes* Loew, 1864= *lepidus* Loew, 1871*Bibio marci* (Linnaeus, 1758)*Bibio nigriventris* Haliday, 1833*Bibio pomonae* (Fabricius, 1775)*Bibio rufipes* (Zetterstedt, 1838)*Bibio siebkei* Mik, 1887= *femoralis* (Siebke, 1863) preocc.*Bibio varipes* Meigen, 1830**DILOPHUS** Meigen, 1803*Dilophus borealis* Skartveit, 1993*Dilophus febrilis* (Linnaeus, 1758)*Dilophus femoratus* Meigen, 1804

PLECIINAE Fleming, 1821

PENTHETRIA Meigen, 1803*Penthetria funebris* Meigen, 1804= *holosericea* Meigen, 1818

superfamily Scatopsoidea Newman, 1834

SCATOPSIDAE Newman, 1834

ASPISTINAE Rondani, 1840

ARTHRIA Kirby in Richardson, 1837*Arthria analis* (Kirby in Richardson, 1837)**ASPISTES** Meigen, 1818*Aspistes berlinensis* Meigen, 1818

- Aspistes freyi* Cook, 1965
Aspistes helleni Krivosheina, 2000
 ECTAETIINAE Enderlein, 1936
ECTAETIA Enderlein, 1912
Ectaetia clavipes (Loew, 1846)
Ectaetia platyscelis (Loew, 1869)
 PSECTROSCIARINAE Cook, 1963
ANAPAUSIS Enderlein, 1912
Anapausis floricola Chandler, 1999
 = *soluta* misid.
Anapausis rectinervis Duda, 1928
 SCATOPSINAE Newman, 1834
 tribe Colobostematini Amorim, 1994
COLOBOSTEMA Enderlein, 1926
Colobostema infumatum (Haliday, 1833)
Colobostema nigripenne (Meigen, 1830)
Colobostema triste (Zetterstedt, 1850)
EFCOOKELLA Haenni, 1998
Efcookella albitarsis (Zetterstedt, 1850)
FERNEIELLA Cook in Freeman, 1985
Ferneiella incompleta (Verrall, 1886)
HOLOPLAGIA Enderlein, 1912
Holoplusia bullata (Edwards, 1925)
Holoplusia transversalis (Loew, 1846)
 tribe Rhegmoclematini Cook, 1955
RHEGMOCLEMINA Enderlein, 1936
Rhegmoclemina vaginata (Lundström, 1910)
THRIPOMORPHA Enderlein, 1905
 = **Rhegmoclema** Enderlein, 1912
Thripomorpha freyi (Cook, 1969)
Thripomorpha halteratum (Meigen, 1838)
Thripomorpha paludicola Enderlein, 1905
 = *edwardsi* (Collin, 1954)
Thripomorpha verralli (Edwards, 1934)
 tribe Scatopsini Newman, 1834
APILOSCATOPSE Cook, 1974
Apiloscatopse flavicollis (Meigen, 1818)
Apiloscatopse flavocincta (Duda, 1928)
REICHERTELLA Enderlein, 1912
Reichertella geniculata (Zetterstedt, 1850)
SCATOPSE Geoffroy, 1762
Scatopse lapponica Duda, 1928
Scatopse notata (Linnaeus, 1758)

tribe Swammerdamellini Cook, 1972

COBOLDIA Melander, 1916

Coboldia fuscipes (Meigen, 1830)

RHEXOZA Enderlein, 1936

Rhexoza subnitens (Verrall, 1886)

SWAMMERDAMELLA Enderlein, 1912

Swammerdamella adercotris Cook, 1972

Swammerdamella brevicornis (Meigen, 1830)

Swammerdamella genypodis Cook, 1972

CANTHYLOSCELIDIDAE Enderlein, 1912

CANTHYLOSCELIDINAE Enderlein, 1912

HYPEROSCELIS Hardy & Nagatomi, 1960

Hyperoscelis eximia (Boheman, 1858)

Hyperoscelis veternosa Mamaev & Krivosheina, 1969

SYNNEURINAE Enderlein, 1936

SYNNEURON Lundström, 1910

Synneuron annulipes Lundström, 1910

superfamily Pachyneuroidea Schiner, 1864

PACHYNEURIDAE Schiner, 1864

PACHYNEURA Zetterstedt, 1838

Pachyneura fasciata Zetterstedt, 1838

Excluded species

Anapausis soluta (Loew, 1846): Specimens under the name *A. soluta* in the earlier checklist (Hackman 1980) represent the later described species *A. floricola* Chandler, 1999.

Swammerdamella acuta Cook, 1956: Has not been found within present borders of Finland.

Notes

Aspistes helleni Krivosheina, 2000 in this checklist based on other material than the one mentioned by Krivosheina (2000).

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Checklist of the Cecidomyiidae (Diptera) of Finland

Mathias Jaschhof¹, Marcela Skuhravá², Jouni Penttinen³

1 Thälmann-Ring 64, D-17491 Greifswald, Germany **2** Bitovská 1227/9, 140 00 Praha 4, Czech Republic
3 Metsähallitus, Natural Heritage, P.O. Box 36, FIN-40101 Jyväskylä, Finland

Corresponding author: *Mathias Jaschhof*(mjaschhof@yahoo.de)

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Abstract

A list of the 356 species of Cecidomyiidae (Diptera) recorded from Finland is presented, which comprises 6 Lestremiinae, 156 Micromyinae, 16 Winnertziinae, 69 Porricondylinae, and 109 Cecidomyiinae. The faunistic knowledge of Finnish Winnertziinae, Porricondylinae and Cecidomyiinae is regarded as particularly poor. Based on species numbers known from other countries in Europe, a conservative estimate is 700–800 species of Cecidomyiidae actually occurring in Finland.

Keywords

Gall midges, Finland, species list

Introduction

With a world total of more than 6200 species described, Cecidomyiidae are among the largest families of Diptera, although adult cecidomyiids are mostly delicate midges with body lengths of less than 5 mm. The family has been catalogued (Gagné and Jaschhof 2014) and that publication provides bibliographic and other information on all known species. Six subfamilies are recognised: the fungivorous Catotrichinae, Lestremiinae, Micromyinae, Winnertziinae and Porricondylinae, and the mostly herbivorous Cecidomyiinae. The latter subfamily, which also includes fungivores and predators, comprises the largest gall-making group of insects (hence the family name that translates as gall midges).

In the fungivorous subfamilies, many larvae are associated with dead wood, rendering those a biodiverse, albeit little studied group of saproxylic insects. In Cecidomyiinae, larvae associated with living flowering plants are usually restricted to development on one, or a few closely-related host species; predators are also generally assumed to be highly host-specific, as far as is known.

The Palaearctic has more named Cecidomyiidae species than any other zoogeographical region, and the best known gall midge fauna is that of Europe, with more than 1800 species (Skuhrová 2006). Even so, European Cecidomyiidae are far from being completely known, and the Finnish fauna provides a good example. To illustrate, while the previous checklist of Finnish Cecidomyiidae (Hackman 1980) comprised only four species of Lestremiinae and Micromyinae, a recent taxonomic study increased that number to 162, including 34 new species (Jaschhof and Jaschhof 2009). As for Winnertziinae and Porricondylinae, 27 species in Hackman's (1980) list compare with 69 species recorded here (Penttinen and Siitonen 2005, Penttinen and Spungis 2007, Penttinen and Jaschhof 2009; Jaschhof, unpublished; Penttinen, unpublished), yet much remains to be discovered, as is testified by specimens in the Penttinen Collection belonging to a number of unnamed species. In Cecidomyiinae, only three species (Hulden 2003; Skuhrová, unpublished) are here added to the Hackman list, a meager increase that is obviously explained by the slight research effort in recent years.

Identification of cecidomyiids, both larvae and adults, is generally difficult and usually left to a few taxonomic specialists of the family. An adult key to the Palaearctic genera of Cecidomyiidae was provided by Skuhrová (1997); to the Holarctic genera of Lestremiinae and Micromyinae by Jaschhof and Jaschhof (2009), and to the Holarctic genera of Winnertziinae and Porricondylinae by Jaschhof and Jaschhof (2013). Adult keys and illustrations by Jaschhof and Jaschhof (2009, 2013) can be used to identify the Finnish species of the fungivorous subfamilies. Adult keys to identify species of Cecidomyiinae in Finland are only available for a few small groups, so any attempts in this regard rely largely on descriptions and illustrations scattered in an extensive literature. In general, many Cecidomyiinae species cannot be identified unless a bundle of information (regarding host, gall, immature stages, adults of both sexes) are known. Illustrated keys to galls, including those caused by gall midges, have been published for Central and Northern Europe by Buhr (1964, 1965), a resource that is currently being revised and updated for publication in English in 2015 (see <http://www.pflanzengallen.de>).

The arrangement of taxa in this list largely follows the recent edition of the world catalogue (Gagné and Jaschhof 2014) except that genera are here arranged under their pertinent tribes and supertribes, if known. All Finnish records of species of the fungivorous subfamilies were revised in recent years (Jaschhof and Jaschhof 2009, 2013; Penttinen, unpublished), so can be related to actual voucher specimens deposited in museum collections. The list of Cecidomyiinae, which is not updated to the same extent, is compiled from published locality records based on varying evidence, including galls alone.

Number of species:

World: 6203 species (Gagné and Jaschhof 2014)

Europe: 1800 species (Skuhrová 2006)

Finland: 356 species (this paper)

Faunistic knowledge level in Finland: poor

Checklist

Nematocera Dumeril, 1805

infraorder Bibionomorpha Hennig, 1954

superfamily Sciaroidea Billberg, 1820

CECIDOMYIIDAE Newman, 1834

LESTREMIINAE Rondani, 1840

tribe Lestremiini Rondani, 1840

ALLARETE Pritchard, 1951

Allarete nigra Mamaev, 1994

ANARETE Haliday, 1833

Anarete sp. 2 [see Note below]

ANARETELLA Enderlein, 1911

Anaretella defecta (Winnertz, 1870)

= *magnicornis* Mamaev, 1964

Anaretella iola Pritchard, 1951

LESTREMIA Macquart, 1826

Lestremia cinerea Macquart, 1826

Lestremia leucophaea (Meigen, 1818)

MICROMYINAE Rondani, 1856

tribe Acoenoniini Pritchard, 1960

ACOENONIA Pritchard, 1947

Acoenonia europaea Mamaev, 1964

tribe Aprionini Jaschhof, 1998

APRIONUS Kieffer, 1894

Aprionus accipitris Jaschhof, 1997

Aprionus acutus Edwards, 1938

Aprionus adventitius Jaschhof, 2009

Aprionus aquilonius Jaschhof, 2009

Aprionus arcticus Mamaev, 2001

Aprionus aviarius Mamaev & Berest, 1990

Aprionus betulae Jaschhof, 1996

Aprionus bidentatus (Kieffer, 1894)

Aprionus bifidus Mamaev, 1963

Aprionus bispinosus Edwards, 1938

- Aprionus brachypterus* Edwards, 1938
Aprionus brevitegminis Jaschhof, 2009
Aprionus cardiophorus Mamaev, 1963
Aprionus carinatus Jaschhof, 1996
Aprionus complicatus Mamaev & Berest, 1986
Aprionus confusus Mamaev, 1969
Aprionus corniculatus Mamaev, 1963
Aprionus cornutus Berest, 1986
Aprionus dalarnensis Mamaev, 1998
Aprionus dentifer Mamaev, 1965
Aprionus dispar Mamaev, 1963
Aprionus dissectus Mamaev & Berest, 1990
Aprionus duplicatus Mamaev, 1998
Aprionus ensiferus Jaschhof, 1996
Aprionus fennicus Jaschhof, 2009
Aprionus flavidus (Winnertz, 1870)
Aprionus foliosus Jaschhof, 2009
Aprionus gladiator Jaschhof, 2009
Aprionus halteratus (Zetterstedt, 1852)
Aprionus heothinos Jaschhof, 2009
Aprionus hintelmannorum Jaschhof, 2009
Aprionus inquisitor Mamaev, 1963
Aprionus insignis Mamaev, 1963
Aprionus laevis Mohrig, 1967
Aprionus lapponicus Jaschhof & Mamaev, 1997
Aprionus laricis Mamaev & Jaschhof, 1997
Aprionus latitegminis Jaschhof, 2009
Aprionus longicollis Mamaev, 1963
Aprionus longitegminis Yukawa, 1967
Aprionus marginatus Mamaev, 1963
Aprionus miki Kieffer, 1895
Aprionus oligodactylus Jaschhof, 2009
Aprionus piceae Jaschhof, 1997
Aprionus praecipuus Jaschhof, 2009
Aprionus pyxidiifer Mamaev, 1998
Aprionus reduncus Jaschhof, 2009
Aprionus separatus Mamaev & Jaschhof, 1997
Aprionus sievertorum Jaschhof, 2009
Aprionus similis Mamaev, 1963
Aprionus spiniferus Mamaev & Berest, 1990
Aprionus spiniger (Kieffer, 1894)
Aprionus stiktos Jaschhof, 2009
Aprionus stylifer Mamaev, 1998

Aprionus styloideus Mamaev & Berest, 1990

Aprionus subacutus Jaschhof, 1997

Aprionus svecicus Jaschhof, 1996

Aprionus taigaensis Jaschhof, 2009

Aprionus tiliamcorticis Mamaev, 1963

Aprionus victoriae Jaschhof, 2009

tribe Bryomyiini Berest, 1993

BRYOMYIA Kieffer, 1895

= *Tomonomyia* Berest, 1993

Bryomyia apsectra Edwards, 1938

Bryomyia bergrothi Kieffer, 1895

Bryomyia gibbosa (Felt, 1907)

Bryomyia producta (Felt, 1908)

HETEROGENELLA Mamaev, 1963

= *Cervuatina* Berest, 1993

Heterogenella finitima Mamaev, 1998

Heterogenella hybrida Mamaev, 1963

Heterogenella linearis Yukawa, 1971

SKUHRAVIANA Mamaev, 1963

Skuhraviana triangulifera Mamaev, 1963

tribe Campylomyzini Kieffer, 1898

CAMPYLOMYZA Meigen, 1818

Campylomyza abbreviata Jaschhof, 2009

Campylomyza aemula Mamaev, 1998

Campylomyza alpina Siebke, 1863

Campylomyza arcuata Jaschhof, 2009

Campylomyza armata Mamaev, 1963

Campylomyza cavitata Mamaev, 1998

Campylomyza cingulata Jaschhof, 2009

Campylomyza dilatata Felt, 1907

Campylomyza falcifera Jaschhof, 2009

Campylomyza flavipes Meigen, 1818

= *pallipes* Zetterstedt, 1850

Campylomyza furva Edwards, 1938

Campylomyza fusca Winnertz, 1870

Campylomyza inornata Jaschhof, 2009

Campylomyza insolita Jaschhof, 2009

Campylomyza ormerodi (Kieffer, 1913)

Campylomyza serrata Jaschhof, 1998

Campylomyza spatulata Mamaev, 1998

Campylomyza stegetfore Jaschhof, 2009

EXCRESCENTIA Mamaev & Berest, 1991

Excrescentia mutuata Mamaev & Berest, 1991

NEUROLYGA Rondani, 1840= *Cordylomyia* Felt, 1911*Neurolyga acuminata* Jaschhof, 2009*Neurolyga bilobata* (Mamaev & Rozhnova, 1982)*Neurolyga excavata* (Yukawa, 1967)*Neurolyga interrupta* Jaschhof, 2009*Neurolyga lonsdalensis* Jaschhof, 2009*Neurolyga paludosa* Jaschhof, 2009*Neurolyga sylvestris* (Felt, 1907)*Neurolyga verna* (Mamaev, 1963)

tribe Catochini Edwards, 1938

CATOCHA Haliday, 1833*Catocha incisa* Jaschhof, 2009*Catocha latipes* Haliday, 1833

tribe Micromyini Rondani, 1856

MICROMYA Rondani, 1840*Micromya lucorum* Rondani, 1840**MONARDIA** Kieffer, 1895= *Pezomyia* Kieffer, 1913**sg. *Monardia*** Kieffer, 1895*Monardia abnormis* Mamaev, 1963*Monardia armata* Jaschhof, 2003*Monardia lignivora* (Felt, 1907)*Monardia obsoleta* Edwards, 1938*Monardia pediculata* (Mamaev, 1993)*Monardia stirpium* Kieffer, 1895*Monardia yasumatsui* Yukawa, 1967**sg. *Trichopteromyia*** Williston, 1896*Monardia magnifica* Mamaev, 1963*Monardia relictata* Jaschhof, 2009**sg. *Xylopriona*** Kieffer, 1913*Monardia adentis* Jaschhof, 1998*Monardia atra* (Meigen, 1804)*Monardia monotheca* Edwards, 1938*Monardia radiella* Mamaev, 1993*Monardia toxicodendri* (Felt, 1907)*Monardia unguifera* Berest & Mamaev, 1997**POLYARDIS** Pritchard, 1947*Polyardis adela* Pritchard, 1947*Polyardis bispinosa* (Mamaev, 1963)*Polyardis silvalis* (Rondani, 1840)

tribe Peromyiini Kleesattel, 1979

PEROMYIA Kieffer, 1894

Peromyia abdita Jaschhof, 2009
Peromyia abnormis Mamaev & Berest, 1990
Peromyia albicornis (Meigen, 1830)
Peromyia anatina Mamaev & Berest, 1990
Peromyia angellifera Jaschhof, 1997
Peromyia anisotoma Mamaev, 1994
Peromyia apposita Jaschhof, 1997
Peromyia bicolor (Edwards, 1938)
Peromyia bidentata Berest, 1998
Peromyia boreophila Jaschhof, 2001
Peromyia caricis (Kieffer, 1901)
Peromyia concitata Mamaev & Berest, 1994
Peromyia cornuta (Edwards, 1938)
Peromyia curta Jaschhof, 1997
Peromyia diadema Mamaev, 1963
Peromyia edwardsi Berest, 1994
Peromyia fagiphila Jaschhof, 1997
Peromyia fungicola (Kieffer, 1901)
Peromyia intermedia (Kieffer, 1895)
Peromyia mitrata Jaschhof, 1997
Peromyia modesta (Felt, 1907)
Peromyia monilis Mamaev, 1965
Peromyia muscorum (Kieffer, 1895)
Peromyia ovalis (Edwards, 1938)
Peromyia palustris (Kieffer, 1895)
Peromyia perpusilla (Winnertz, 1870)
Peromyia photophila (Felt, 1907)
Peromyia pumila Jaschhof, 2001
Peromyia ramosa (Edwards, 1938)
Peromyia ramosoides Jaschhof, 2009
Peromyia sanguinea (Kieffer, 1894)
Peromyia scirrhosa Jaschhof, 2009
Peromyia scutellata Mamaev, 1990
Peromyia semotoides Jaschhof, 2009
Peromyia subbicolor Jaschhof, 2009
Peromyia subborealis Jaschhof, 1997
Peromyia syltfejordensis Jaschhof, 1996
Peromyia truncata Yukawa, 1967
Peromyia tundrae Jaschhof, 1996
Peromyia upupoides Jaschhof, 1997
WINNERTZIINAE Panelius, 1965
tribe Diallactiini Jaschhof, 2013
DIALLACTIA Gagné, 2004

= *Diallactes* Kieffer, 1894 preocc.

Diallactia crocea (Kieffer, 1894)

= *obscuripes* (Spungis, 1985)

SYLVENOMYIA Mamaev & Zaitzev, 1998

Sylvenomyia fennica Penttinen & Jaschhof, 2009

Sylvenomyia spinigera (Spungis, 1985)

tribe Heteropezini Schiner, 1868

HETEROPEZA Winnertz, 1846

Heteropeza pygmaea Winnertz, 1846

LEPTOSYNA Kieffer, 1894

Leptosyna similis Jaschhof, 2013

MIASTOR Meinert, 1864

Miastor metraloas Meinert, 1864

tribe Winnertziini Panelius, 1965

KRONOMYIA Felt, 1911

Kronomyia ovalis (Mamaev, 1964)

RHIPIDOXYLOMYIA Mamaev, 1964

Rhipidoxylomyia brevicornis Mamaev, 1964

WINNERTZIA Rondani, 1860

Winnertzia bulbifera Mamaev, 1963

Winnertzia curvata Panelius, 1965

Winnertzia fusca Kieffer, 1901

Winnertzia globifera Mamaev, 1963

Winnertzia graduata Spungis, 1992

Winnertzia nigripennis Kieffer, 1896

Winnertzia rotundata Spungis, 1992

Winnertzia solidaginis Felt, 1907

= *calciequina* Felt, 1907

PORRICONDYLINEAE Kieffer, 1913

tribe Asynaptini Rübsaamen & Hedicke, 1926

ASYNAPTA Loew, 1850

Asynapta breviata Spungis, 1988

Asynapta inflata Spungis, 1988

Asynapta magdalini Panelius, 1965

Asynapta pectoralis (Winnertz, 1853)

Asynapta rufomaculata Panelius, 1965

Asynapta saliciperda Felt, 1908

= *populnea* Panelius, 1965

Asynapta strobi (Kieffer, 1920)

CAMPTOMYIA Kieffer, 1894

Camptomyia abnormis Mamaev, 1961

Camptomyia calcarata Mamaev, 1964

Camptomyia corticalis (Loew, 1851)

- Camptomyia flavocinerea* Panelius, 1965
Camptomyia gigantea Spungis, 1989
Camptomyia pinicola Mamaev, 1961
Camptomyia piptopori Panelius, 1965
Camptomyia regia Spungis, 1989
Camptomyia salicicola Mamaev, 1961
 = *populicola* Mamaev, 1961
Camptomyia spinifera Mamaev, 1961
COLOMYIA Kieffer, 1892
Colomyia clavata Kieffer, 1892
PARASYNAPTA Panelius, 1965
Parasynapta intermedia Panelius, 1965
 tribe Dicerurini Mamaev, 1966
 = Solntseviini Mamaev, 1966
DICERURA Kieffer, 1898
Dicerura furculata Mamaev, 1968
Dicerura mixta Spungis, 1987
Dicerura rossica (Mamaev, 1960)
Dicerura triangularis Mamaev, 1966
Dicerura unidentata Spungis, 1987
DIRHIZA Loew, 1850
Dirhiza lateritia Loew, 1850
HILVERSIDIA Mamaev, 1966
Hilversidia autumnalis Mamaev, 1966
PARATETRANEUROMYIA Spungis, 1987
Paratetraneuromyia vernalis Spungis, 1987
SOLNTSEVIA Mamaev, 1965
Solntsevia nigripes Mamaev, 1965
TETRANEUROMYIA Mamaev, 1964
Tetraneuromyia lenticularis (Spungis, 1987)
 tribe Porricondylini Kieffer, 1913
 = Holoneurini Enderlein, 1936
ARCTEPIDOSIS Mamaev, 1990
Arctepidosis paneliusi Mamaev & Zaitzev, 1998
CASSIDOIDES Mamaev, 1960
Cassidoides fulvus (Kieffer, 1896)
 = *pini* Mamaev, 1960
CLASPETTOMYIA Grover, 1964
 = *Pachylabis* Panelius, 1965
Claspettomyia hamata (Felt, 1907)
Claspettomyia niveitarsis (Zetterstedt, 1850)
Claspettomyia rossica Mamaev, 1998
Claspettomyia ussuriensis Mamaev, 1998

COCCOPSILIS Harris, 2004= *Coccopsis* Meijere preocc.*Coccopsilis marginata* (Meijere, 1901)*Coccopsilis obscura* (Mamaev, 1964)*Coccopsilis paneliusi* (Yukawa, 1971)**DENDREPIDOSIS** Mamaev, 1990*Dendrepidosis longipennis* (Spungis, 1981)**DIVELLEPIDOSIS** Fedotova & Sidorenko, 2007*Divellepidosis armilla* (Mamaev, 1994)*Divellepidosis fuscostriata* (Panelius, 1965)*Divellepidosis hypoxantha* (Panelius, 1965)*Divellepidosis lutescens* (Spungis, 1981)*Divellepidosis pallescens* (Panelius, 1965)*Divellepidosis taigacola* Jaschhof, 2013**JAMALEPIDOSIS** Mamaev, 1990*Jamalepidosis spungisi* Jaschhof, 2013**MONEPIDOSIS** Mamaev, 1966*Monepidosis furcata* Mamaev, 1966*Monepidosis pectinata* Mamaev, 1966**PANELIUSIA** Jaschhof, 2013*Paneliusia albimanoides* Jaschhof, 2013*Paneliusia aurantiaca* (Panelius, 1965)= *modesta* (Spungis, 1981)**PAREPIDOSIS** Kieffer, 1913*Parepidosis arcuata* Mamaev, 1964= *longinodis* Panelius, 1965*Parepidosis venustior* Gagné, 2004**PAURODYLA** Jaschhof, 2013*Paurodyla tyresta* Jaschhof, 2013**PORRICONDYLA** Rondani, 1840*Porricondyla fulvescens* Panelius, 1965*Porricondyla neglecta* Mamaev in Mamaev & Krivosheina, 1965*Porricondyla nigripennis* (Meigen, 1830)*Porricondyla rufescens* Panelius, 1965**PSEUDEPIDOSIS** Mamaev, 1966*Pseudepidosis trifida* Mamaev, 1966**ROSTELLATYLA** Jaschhof, 2013*Rostellatyla rostellata* (Panelius, 1965)**ROSTRATYLA** Jaschhof, 2013*Rostratyla globosa* (Spungis, 1981)**SCHISTONEURUS** Mamaev, 1964*Schistoneurus impressus* Mamaev, 1964*Schistoneurus irregularis* Mamaev, 1964

SERRATYLA Jaschhof, 2013*Serratyla furcata* (Mamaev, 2001)*Serratyla pubescens* (Walker, 1856)*Serratyla spinosa* Jaschhof, 2013**SPUNGISOMYIA** Mamaev & Zaitzev, 1996*Spungisomyia media* (Spungis, 1981)**ZAITZEVIOLA** Fedotova & Sidorenko, 2007*Zaitzeviola latistylata* Jaschhof, 2013*Zaitzeviola pilosistylata* Jaschhof, 2013*Zaitzeviola rufocinerea* (Panelius, 1965)

CECIDOMYIINAE Newman, 1834

supertribe Cecidomyiidi Rübсаamen & Hedicke, 1925

tribe Aphidoletini Harris, 1966

APHIDOLETES Kieffer, 1904*Aphidoletes aphidimyza* (Rondani, 1847)*Aphidoletes urticae* (Kieffer, 1895)**MONOBREMIA** Kieffer, 1912*Monobremia subterranea* (Kieffer, 1898)

tribe Asphondyliini Rübсаamen & Hedicke, 1925

ASPHONDYLIA Loew, 1850*Asphondylia serpylli* Kieffer, 1898= *thymi* Kieffer, 1898**KIEFFERIA** Mik, 1895*Kiefferia pericarpiicola* (Bremi, 1847)**SCHIZOMYIA** Kieffer, 1889*Schizomyia galiorum* Kieffer, 1889

tribe Cecidomyiini Rübсаamen & Hedicke, 1925

ANISOSTEPHUS Rübсаamen, 1917*Anisostephus betulinus* (Kieffer, 1889)**CECIDOMYIA** Meigen, 1803*Cecidomyia pini* (De Geer, 1776)**CONTARINIA** Rondani, 1860*Contarinia coryli* (Kaltenbach, 1859)*Contarinia craccae* Loew, 1850*Contarinia gei* Kieffer, 1909= *geicola* Rübсаamen, 1917*Contarinia kanervoi* Barnes, 1958*Contarinia lonicerearum* (F. Löw, 1877)*Contarinia loti* (De Geer, 1776)*Contarinia merceri* Barnes, 1930*Contarinia petioli* (Kieffer, 1898)*Contarinia pisi* (Loew, 1850)*Contarinia quercina* (Rübсаamen, 1890)

- Contarinia sambuci* (Kaltenbach, 1873)
 = *lonicerearum* (F. Löw, 1874)
Contarinia tiliarum (Kieffer, 1890)
Contarinia tritici (Kirby, 1798)
Contarinia vincetoxici Kieffer, 1909
MACRODIPLOSIS Kieffer, 1895
Macrodiplosis pustularis (Bremi, 1847)
 = *dryobia* (Löw, 1877)
Macrodiplosis roboris (Hardy, 1854)
 = *volvens* Kieffer, 1895
PLEMELIELLA Seitner, 1908
Plemeliella abietina Seitner, 1908
STENODIPLOSIS Reuter, 1895
Stenodiplosis geniculati Reuter, 1895
THECODIPLOSIS Kieffer, 1895
Thecodiplosis brachyntera (Schwäggrichen, 1835)
 tribe Clinodiplosini Enderlein, 1936
AMETRODIPLOSIS Rübsaamen, 1910
Ametrodiplosis thalictricola (Rübsaamen, 1895)
CLINODIPLOSIS Kieffer, 1894
Clinodiplosis cilicrus (Kieffer, 1889)
SITODIPLOSIS Kieffer, 1913
Sitodiplosis mosellana (Géhin, 1857)
 tribe Hormomyiini Rübsaamen & Hedicke, 1925
PLANETELLA Westwood, 1840
Planetella ?grandis (Meigen, 1804)
 tribe Lestodiplosini Harris, 1966
LESTODIPLOSIS Kieffer, 1894
Lestodiplosis pallidicornis Kieffer, 1898
 unplaced Cecidomyiidi
HARMANDIOLA Skuhrová, 1997
 = *Harmandia* Kieffer, 1896 preocc.
Harmandiola globuli (Rübsaamen, 1889)
Harmandiola tremulae (Winnertz, 1853)
 = *loewi* (Rübsaamen, 1917)
HYGRODIPLOSIS Kieffer, 1912
Hygrodiplosis vaccinii (Kieffer, 1897)
MASSALONGIA Kieffer, 1897
Massalongia rubra (Kieffer, 1890)
RESSELIELLA Seitner, 1906
 = *Thomasiniana* Strand, 1927
Resseliella ribis (Marikovskij, 1956)
Resseliella theobaldi (Barnes, 1927)

XYLODIPLOSIS Kieffer, 1894*Xylodiplosis nigritarsis* (Zetterstedt, 1850)

supertribe Lasiopteridi Rübsaamen & Hedicke, 1925

tribe Dasineurini Rübsaamen & Hedicke, 1925

DASINEURA Rondani, 1840*Dasineura affinis* (Kieffer, 1886)*Dasineura alopecuri* (Reuter, 1895)*Dasineura angelicae* Rübsaamen, 1916*Dasineura cardaminis* (Winnertz, 1853)*Dasineura engstfeldi* (Rübsaamen, 1889)*Dasineura epilobii* (F. Löw, 1889)*Dasineura fraxinea* Kieffer, 1907*Dasineura fraxini* (Bremi, 1847)*Dasineura galiicola* (F. Löw, 1880)*Dasineura gentneri* Pritchard, 1953*Dasineura hygrophila* (Mik, 1883)*Dasineura hyperici* (Bremi, 1847)*Dasineura jaapi* Rübsaamen, 1914*Dasineura kiefferiana* (Rübsaamen, 1891)*Dasineura leguminicola* (Lintner, 1879)*Dasineura lotharingiae* (Kieffer, 1888)*Dasineura mali* (Kieffer, 1904)*Dasineura napi* (Loew, 1850)= *brassicae* (Winnertz, 1853)*Dasineura populeti* (Rübsaamen, 1889)*Dasineura pteridicola* (Kieffer, 1901)*Dasineura pteridis* (Muller, 1871)= *filicina* (Kieffer, 1889)*Dasineura pustulans* (Rübsaamen, 1889)*Dasineura pyri* (Bouché, 1847)*Dasineura ribis* Barnes, 1940*Dasineura rosae* (Bremi, 1847)= *Wachtliella rosarum* (Hardy, 1854)*Dasineura similis* (F. Löw, 1888)*Dasineura sisymbrii* (Schrank, 1803)*Dasineura tetensi* (Rübsaamen, 1892)*Dasineura thomasiana* (Kieffer, 1888)*Dasineura tiliae* (Schrank, 1803)= *tiliamvolvans* (Rübsaamen, 1889)*Dasineura trifolii* (F. Löw, 1874)*Dasineura ulmaria* (Bremi, 1847)*Dasineura urticae* (Perris, 1840)*Dasineura viciae* (Kieffer, 1888)

- Dasineura violae* (F. Löw, 1880)
GEOCRYPTEA Kieffer, 1913
Geocrypta galii (Loew, 1850)
GEPHYRAULUS Rübsaamen, 1915
Gephyraulius raphanistri (Kieffer, 1886)
GIRAUDIELLA Rübsaamen, 1915
Giraudiella inclusa (Frauenfeld, 1862)
JAAPIELLA Rübsaamen, 1915
Jaapiella loticola (Rübsaamen, 1889)
Jaapiella veronicae (Vallot, 1827)
KALTENBACHIOLA Hedicke, 1938
Kaltenbachiola strobi (Winnertz, 1853)
MACROLABIS Kieffer, 1892
Macrolabis cirsii (Rübsaamen, 1890)
Macrolabis orobi (F. Löw, 1877)
RABDOPHAGA Westwood, 1847
Rabdophaga dubiosa Kieffer, 1913
Rabdophaga gemmicola (Kieffer, 1896)
Rabdophaga heterobia (Loew, 1850)
Rabdophaga iteobia (Kieffer, 1890)
Rabdophaga marginemtorquens (Bremi, 1847)
Rabdophaga nervorum (Kieffer, 1895)
Rabdophaga rosaria (Loew, 1850)
Rabdophaga salicis (Schrank, 1803)
Rabdophaga terminalis (Loew, 1850)
WACHTLIELLA Rübsaamen, 1915
Wachtliella caricis (Loew, 1850)
 = *riparia* (Winnertz, 1853)
 = *muricatae* (Meade, 1886)
Wachtliella persicariae (Linnaeus, 1767)
tribe Lasiopterini Rübsaamen & Hedicke, 1925
LASIOPTERA Meigen, 1818
Lasioptera populnea Wachtl, 1883
Lasioptera rubi (Schrank, 1803)
tribe Oligotrophini Rübsaamen & Hedicke, 1925
OLIGOTROPHUS Latreille, 1805
Oligotrophus juniperinus (Linnaeus, 1758)
Oligotrophus panteli Kieffer, 1898
tribe Poomyini Rübsaamen & Hedicke, 1925
MAYETIOLA Kieffer, 1896
Mayetiola avenae (Marchal, 1895)
Mayetiola destructor (Say, 1817)
Mayetiola joannisi Kieffer, 1896
tribe Rhopalomyiini Harris, 1966

RHOPALOMYIA Rübsaamen, 1892*Rhopalomyia chrysanthemi* (Ahlberg, 1939)*Rhopalomyia millefolii* (Loew, 1850)*Rhopalomyia ptarmicae* (Vallot, 1849)*Rhopalomyia tanaceticola* (Karsch, 1879)*Rhopalomyia tubifex* (Bouché, 1847)

unplaced Lasiopteridi

CYSTIPHORA Kieffer, 1892*Cystiphora sanguinea* (Bremi, 1847)= *hieracii* (F. Löw, 1874)= *pilosellae* Kieffer, 1892*Cystiphora sonchi* (Vallot, 1827)**ITEOMYIA** Kieffer, 1913*Iteomyia capreae* (Winnertz, 1853)**SEMUDOBIA** Kieffer, 1913*Semudobia betulae* (Winnertz, 1853)**Excluded species***Anarete lacteipennis* Kieffer, 1906. Misidentification.*Camptomyia antennata* Felt, 1920. Misidentification.*Camptomyia maxima* Mamaev, 1961. Presumptive misidentification; Finnish record cannot be verified.*Camptomyia piceae* Panelius, 1965. Presumptive misidentification; Finnish record cannot be verified.*Catarete brevinervis* (Zetterstedt, 1851). Misidentification.*Cecidomyia aurora* Mannerheim, 1823. Nomen dubium.*Epidosis flavescens* F. Löw, 1874. Nomen dubium.**Note**

Anarete sp. 2. This species was described by Jaschhof and Jaschhof (2009) but not named. Identification of *Anarete* species is practically impossible using the keys and descriptions available in the literature.

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Checklist of the fungus gnats of Finland: Bolitophilidae, Diadocidiidae, Ditomyiidae, Keroplastidae and Mycetophilidae (Diptera)

Jevgeni Jakovlev¹

¹ Finnish Environment Institute, Helsinki, Finland

Corresponding author: Jevgeni Jakovlev (jevgeni.jakovlev@ymparisto.fi)

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Abstract

A checklist of the 'fungus gnat' group of families in Sciaroidea: Bolitophilidae, Diadocidiidae, Ditomyiidae, Keroplastidae and Mycetophilidae (Diptera) recorded from Finland. At present, the known Finnish fauna comprises 767 recognized species in 78 genera; 21 species of the family Bolitophilidae, 5 of the family Diadocidiidae, 2 of the family Ditomyiidae, 47 of the family Keroplastidae and 692 of the family Mycetophilidae. The unassigned genus *Sciarosoma* Chandler, 2002 is not included in this paper because it is listed with Sciaridae.

The most relevant synonyms, on which species were ever listed from Finland in Hackman (1980) and subsequent authors are indicated in the checklist. Eighteen species names of wrong records were removed.

Keywords

Species list, Finland, Diptera, biodiversity, faunistics

Introduction

Fungus gnats are a rich assemblage of nematoceros flies (Diptera, Nematocera) placed in the infraorder Bibionomorpha and superfamily Sciaroidea, currently divided into eight families (Blagoderov and Grimaldi 2004). Five of these families (Bolitophilidae, Diadocidiidae, Ditomyiidae, Keroplastidae and Mycetophilidae) are called informally

‘fungus gnats’ by most European authors. Species in these families are morphologically closely related and the group is also ecologically uniform.

Adults of fungus gnats are generally quite easily recognized by their habitus. They are slender to moderately robust flies between 2 and 10 mm (a few up to 15 mm) in body length, with long antenna, a high and often strongly arched thorax made distinctly higher by the long, stout and tight-sitting coxae of their legs. Their wings have reduced and variable venation that is quite distinctive for the different families and much used also to classify genera. Their body and legs are often covered with strong bristles. As larvae the majority of fungus gnat species are mycetophagous, associated with fungi, either fruiting bodies or mycelia in dead wood and soil litter.

Here I cover all the Finnish fungus gnat fauna of the families Bolitophilidae, Diadocidiidae, Ditomyiidae, Keroplatidae, and Mycetophilidae. In Europe, the superfamily Sciaroidea further includes two large families, the Sciaridae – black-winged fungus gnats and the Cecidomyiidae – gall midges (Søli et al. 2000) although some authors, e.g. Hippa and Vilkamaa (2006) consider the Cecidomyiidae as the sister group of all other Sciaroidea. They differ markedly in habitus and larval biology and are presented elsewhere. Finally, the unassigned genus *Sciarosoma* Chandler, 2002 is not included in this checklist since it is listed with the family Sciaridae according Hippa and Vilkamaa (2006), but see also opinion by Jaschhof et al. (2006).

Systematics and nomenclature of the enumeration follow the online checklist of Nordic fungus gnats (Kjærandsen 2012). Only the most relevant synonyms, on which species were ever listed from Finland, are included in the checklist.

Adults of the North European species can largely be identified using Hutson et al. (1980) and Zaitzev (1994) – Bolitophilidae, Diadocidiidae, Ditomyiidae, Keroplatidae, and Mycetophilidae in part (Mycomyiinae, Sciophilinae, Gnoristinae and Leiiinae), and Zaitzev (2003) – Mycetophilidae in part (Mycetophilinae and Manotinae). However, since many new taxa are added, and corrections, synonyms and revisions continually published, one needs a complete set of the fragmented taxonomic literature to cover all the species. A good source for obtaining most important literature on the Sciaroidea is the ViBrant/Scratchpad module Fungus Gnats Online (2014). Species identification of fungus gnats based on examination of larvae is currently impossible because the larvae seemingly lack unique morphological characteristics and search for species-specific molecular markers are yet to be implemented.

Fungus gnats are distributed all over the world with about 5,300 known species (Table 1), more than 1,450 of them are known from the Palearctic region (Søli et al. 2000). According to the current version of the Fauna Europaea Web-database (Chandler 2004), 1,098 species of fungus gnats had then been recorded from Europe. Taking into account literature published subsequently these figures could be increased in ca 100 additional species, i.e. some 1,200 species are known in Europe at present. As opposed to many other insect groups, fungus gnats, at least Mycetophilidae, seem to display an increasing diversity towards the north in Europe, and in the European perspective, they are especially diverse in the boreal zone. The current version of the checklist of North European (Sweden, Norway, Finland, Russian Karelia, Russian Lapland, Denmark, The Faroes, and Iceland) fungus gnats (Kjærandsen 2012) includes 896 species.

Table 1. Number of species by family.

Family	Number of species (except <i>Sciarosoma</i>) in				Level of knowledge
	World (Pape et al. 2011)	Europe (Chandler 2004)	Nordic Region (Kjærandsen 2012)	Finland	
Bolitophilidae	59	36	31	21	average
Diadocidiidae	34	5	5	5	average
Ditomyiidae	94	4	3	2	average
Keroplastidae	953	110	62	47	average
Mycetophilidae	4150	942	794	692	average

In Finland, 269 species of the fungus gnats (of which ca. 40 currently recognized species were described by Carl Lundström) were first listed in the Enumeration Insectorum Fenniae (Frey et al. 1941). Hackman (1980) presented the second checklist of Finnish Diptera that incorporates 486 species of fungus gnats including five with a question mark. This list of species, with minor additions and corrections concerning Mycetophilidae after systematical revisions of the genera *Trichonta* (Gagné 1981) and *Mycomya* (Väisänen 1984) in the Holarctic region was included into Catalogue of the Palaearctic Diptera (Hackman et al. 1988). During the recent two decades, large-scale inventories (e.g. Polevoi and Jakovlev 2004, Polevoi et al. 2006, Jakovlev et al. 2006, 2014, Jakovlev and Penttinen 2007) have increased the total number of Finnish fungus gnats with ca. 300 species. The 2010 Finnish Red List assessment of fungus gnats was based on a regional species pool consisting on 734 species (Penttinen et al. 2010). At present, the Finnish fungus gnat fauna incorporates 767 recognized species (except *Sciarosoma*) and ca. 20 species awaiting descriptions. Altogether, 18 species names of wrong records from Finland were removed from the checklist. These species and 3 doubtful species names are listed in the end.

Checklist

Nematocera Dumeril, 1805
 infraorder Bibionomorpha Hennig, 1954
 superfamily Sciaroidea Schiner, 1864

BOLITOPHILIDAE Winnertz, 1864

BOLITOPHILA Meigen, 1818

sg. *Bolitophila* Meigen, 1818

Bolitophila austriaca (Mayer, 1950)

Bolitophila basicornis (Mayer, 1951)

Bolitophila caspersi Plassmann, 1956

Bolitophila cinerea Meigen, 1818

Bolitophila saundersii (Curtis, 1836)

Bolitophila tenella Winnertz, 1864

sg. *Cliopisa* Enderlein, 1936

Bolitophila aperta Lundström, 1915

- Bolitophila bimaculata* Zetterstedt, 1838
Bolitophila dubia Siebke, 1863
 = *disjuncta* Loew, 1869
Bolitophila fumida Edwards, 1941
Bolitophila glabrata Loew, 1869
Bolitophila hybrida (Meigen, 1804)
Bolitophila ingrlica Stackelberg, 1969
Bolitophila limitis Polevoi, 1996
Bolitophila maculipennis Walker, 1836
 = *coronata* Mayer, 1951
Bolitophila modesta Lackschewitz, 1937
 = *tarsata* Mayer, 1951
Bolitophila nigrolineata Landrock, 1912
Bolitophila obscurior Stackelberg, 1969
Bolitophila oclusa Edwards, 1913
Bolitophila pseudohybrida Landrock, 1912
Bolitophila rossica Landrock, 1912

DIADOCIDIIDAE Winnertz, 1864

- DIADOCIDIA** Ruthe, 1831
sg. Adidocidia Laštovka & Matile 1972
Diadocidia trispinosa Polevoi, 1996
Diadocidia valida Mik, 1874
sg. Diadocidia Ruthe, 1831
Diadocidia ferruginosa (Meigen, 1830)
Diadocidia fissa Zaitzev, 1994
Diadocidia spinosula Tolle, 1948

DITOMYIIDAE Keilin, 1919

- SYMMERUS** Walker, 1848
Symmerus annulatus (Meigen, 1830)
Symmerus nobilis Lackschewitz, 1937

KEROPLATIDAE Rondani, 1856

- KEROPLATINAE Rondani, 1856
 tribe Keroplatini Rondani, 1856
CEROTELION Rondani, 1856
Cerotelion striatum (Gmelin, 1790)
 = *lineatum* (Fabricius, 1775) preocc.
KEROPLATUS Bosc, 1792
Keroplatus testaceus Dalman, 1818
Keroplatus tipuloides Bosc, 1792
 = *sesioides* Wahlberg, 1839

* *Keroplatus tuvensis* Zaitzev, 1991 (see Notes)

ROCETELION Matile, 1988

Rocetelion humerale (Zetterstedt, 1850)

tribe Orfeliini Matile, 1990

ISONEUROMYIA Brunetti, 1912

Isoneuromyia semirufa (Meigen, 1818)

MACRORRHYNCHA Winnertz, 1846

Macrorrhyncha flava Winnertz, 1846

Macrorrhyncha rostrata (Zetterstedt, 1851)

MONOCENTROTA Edwards, 1925

Monocentrota lundstroemi Edwards, 1925

NEOPLATYURA Malloch, 1928

Neoplatyura flava (Macquart, 1826)

Neoplatyura modesta (Winnertz, 1864)

ORFELIA Costa, 1857

Orfelia discoloria (Meigen, 1818)

Orfelia falcata Zaitzev, 1994

Orfelia fasciata (Meigen, 1804)

Orfelia krivosheinae Zaitzev, 1994

Orfelia lugubris (Zetterstedt, 1851)

= *tristis* (Lundström, 1911)

Orfelia nemoralis (Meigen, 1818)

Orfelia nigricornis (Fabricius, 1805)

Orfelia ochracea (Meigen, 1818)

= *unicolor* (Staeger, 1840)

Orfelia pallida (Staeger, 1840)

PYRATULA Edwards, 1929

Pyratula perpusilla (Edwards, 1913)

Pyratula subcanariae Chandler, 2001

Pyratula zonata (Zetterstedt, 1855)

URYTALPA Edwards, 1929

Urytalpa atriceps (Edwards, 1913)

Urytalpa dorsalis (Staeger, 1840)

= *ochracea* (Meigen, 1818)

Urytalpa galdes Hedmark & Kjærandsen, 2009

Urytalpa macrocera (Edwards, 1913)

Urytalpa trivittata (Lundström, 1914)

MACROCERINAE Rondani, 1856

tribe Macrocerini Rondani, 1856

MACROCERA Meigen, 1803

Macrocera angulata Meigen, 1818

Macrocera centralis Meigen, 1818

Macrocera crassicornis Winnertz, 1864

- Macrocera estonica* Landrock, 1924
Macrocera fasciata Meigen, 1804
Macrocera fascipennis Staeger, 1840
Macrocera grandis Lundström, 1912
 = *magna* Landrock, 1917
Macrocera lutea Meigen, 1804
Macrocera maculata Meigen, 1818
Macrocera nigricoxa Winnertz, 1864
Macrocera parva Lundström, 1914
Macrocera phalerata Meigen, 1818
Macrocera pilosa Landrock, 1917
Macrocera pumilio Loew, 1869
Macrocera pusilla Meigen, 1830
Macrocera stigma Curtis, 1837
Macrocera stigmoides Edwards, 1925
Macrocera vittata Meigen, 1830
Macrocera zetterstedti Lundström, 1914
 = *nana* Zetterstedt, 1860

MYCETOPHILIDAE Newman, 1834

MYCOMYINAE Edwards, 1925

MYCOMYA Rondani, 1856

sg. Calomycomya Väisänen, 1984

Mycomya avala Väisänen, 1984

Mycomya pulchella (Dziedzicki, 1885)

sg. Coberomyia Väisänen, 1984

Mycomya branderi Väisänen, 1984

 = *tantilla* auct. nec (Loew, 1869) misid.

sg. Cymomyia Väisänen, 1984

Mycomya circumdata (Staeger, 1840)

sg. Lycomyia Väisänen, 1984

Mycomya pectinifera Edwards, 1924

sg. Mycomya Rondani, 1856

Mycomya annulata (Meigen, 1818)

 = *incisurata* (Zetterstedt, 1838)

Mycomya bialorussica Landrock, 1925

Mycomya bicolor (Dziedzicki, 1885)

Mycomya bisulca Lackschewitz, 1937

Mycomya britteni Kidd, 1955

Mycomya brunnea (Dziedzicki, 1885)

Mycomya cinerascens (Macquart, 1826)

 = *hyalinata* (Meigen, 1830)

Mycomya collini Edwards, 1941

- Mycomya danielae* Matile, 1972
Mycomya denmax Väisänen, 1979
Mycomya digitifera Edwards, 1925
Mycomya disa Väisänen, 1984
Mycomya dziedzickii Väisänen, 1984
 = *fulva* (Dziedzicki, 1885) preocc.
Mycomya egregia (Dziedzicki, 1885)
Mycomya festivalis Väisänen, 1984
Mycomya flavicollis (Zetterstedt, 1852)
Mycomya forestaria Plassmann, 1978
Mycomya fuscata (Winnertz, 1864)
Mycomya griseovittata (Zetterstedt, 1852)
 = *fasciata* (Zetterstedt, 1838) preocc.
 = *clavigera* (Lundström, 1912)
Mycomya hackmani Väisänen, 1984
Mycomya heydeni Plassmann, 1970
Mycomya hians (Lundström, 1912)
Mycomya hiisi Väisänen, 1979
Mycomya humida Garrett, 1924
 = *curvata* Fisher, 1937
Mycomya indistincta Polevoi, 1995
Mycomya insignis (Winnertz, 1864)
 = *wrzesniowskii* (Dziedzicki, 1885)
Mycomya islandica Väisänen, 1984
Mycomya karelica Väisänen, 1979
Mycomya kaurii Väisänen, 1979
Mycomya kuusamoensis Väisänen, 1979
Mycomya lambi Edwards, 1941
Mycomya leporina Väisänen, 1984
Mycomya levis (Dziedzicki, 1885)
Mycomya livida (Dziedzicki, 1885)
Mycomya maculata (Meigen, 1804)
Mycomya marginata (Meigen, 1818)
 = *limbata* (Winnertz, 1864)
Mycomya mituda Väisänen, 1980
Mycomya neohyalinata Väisänen, 1984
Mycomya nigricornis (Zetterstedt, 1852)
 = *melanoceras* Edwards, 1924
Mycomya nitida (Zetterstedt, 1852)
 = *exigua* (Winnertz, 1864)
Mycomya norna Väisänen, 1984
Mycomya occultans (Winnertz, 1864)
Mycomya ornata (Meigen, 1818)

- Mycomya parva* (Dziedzicki, 1885)
Mycomya prominens (Lundström, 1913)
Mycomya pseudoapicalis Landrock, 1925
Mycomya pseudocurvata Väisänen, 1979
Mycomya punctata (Meigen, 1804)
Mycomya ruficollis (Zetterstedt, 1852)
Mycomya safena Väisänen, 1984
Mycomya shermani Garrett, 1924
 = *kingi* Edwards, 1941
Mycomya shewelli Väisänen, 1984
Mycomya siebecki (Landrock, 1912)
Mycomya sieberti (Landrock, 1930)
Mycomya sigma Johannsen, 1910
 = *duplicata* Edwards, 1925
Mycomya simulans Väisänen, 1984
Mycomya spinicoxa Väisänen, 1979
Mycomya storai Väisänen, 1979
Mycomya subarctica Väisänen, 1979
Mycomya tenuis (Walker, 1856)
Mycomya thula Väisänen, 1984
Mycomya trivittata (Zetterstedt, 1838)
Mycomya tumida (Winnertz, 1864)
Mycomya vittiventris (Zetterstedt, 1852)
 = *elegans* (Lundström, 1912)
Mycomya wankowiczii (Dziedzicki, 1885)
Mycomya winnertzi (Dziedzicki, 1885)
sg. *Mycomyopsis* Väisänen, 1984
Mycomya affinis (Staeger, 1840)
 = *flava* (Winnertz, 1864)
Mycomya confusa Väisänen, 1977
Mycomya fennica Väisänen, 1979
Mycomya maura (Walker, 1856)
Mycomya neolittoralis Väisänen, 1984
Mycomya paradentata Väisänen, 1984
 = *dentata* auct. nec Fisher, 1937 misid.
Mycomya penicillata (Dziedzicki, 1885)
Mycomya permixta Väisänen, 1984
Mycomya trilineata (Zetterstedt, 1838)
 = *fusca* (Meigen, 1818)
sg. *Neomycomya* Väisänen, 1984
Mycomya fimbriata (Meigen, 1818)
NEOEMPHERIA Osten Sacken, 1878
Neoempheria bimaculata (von Roser, 1840)

- Neoempheria pictipennis* (Haliday, 1833)
Neoempheria striata (Meigen, 1818)
Neoempheria tuomikoskii Väisänen, 1982
Neoempheria winnertzi Edwards, 1913
SCIOPHILINAE Rondani, 1840
ACNEMIA Winnertz, 1864
Acnemia amoena Winnertz, 1864
Acnemia angusta Zaitzev, 1982
Acnemia falcata Zaitzev, 1982
Acnemia longipes Winnertz, 1864
Acnemia nitidicollis (Meigen, 1818)
Acnemia trifida Zaitzev, 1982
ALLOCOTOCERA Mik, 1886
Allocotocera pulchella (Curtis, 1837)
ANACLILEIA Meunier, 1904
Anaclileia dispar (Winnertz, 1864)
Anaclileia dziedzickii (Landrock, 1911)
AZANA Walker, 1856
sg. Azana Walker, 1856
Azana anomala (Staeger, 1840)
COELOPHTHINIA Edwards, 1941
Coelophthinia thoracica (Winnertz, 1864)
EUDICRANA Loew, 1869
Eudicrana nigriceps (Lundström, 1909)
LEPTOMORPHUS Curtis, 1831
sg. Leptomorphus Curtis, 1831
Leptomorphus forcipatus Landrock, 1918
Leptomorphus subforcipatus Zaitzev & Ševčík, 2002
 = *quadrifasciatus* auct. nec Matsumura, 1910 misid. (see Notes)
Leptomorphus walkeri Curtis, 1831
MEGALOPELMA Enderlein, 1911
Megalopelma nigroclavatum (Strobl, 1910)
MONOCLONA Mik, 1886
Monoclona braueri (Strobl, 1895)
Monoclona rufilatera (Walker, 1837)
Monoclona silvatica Zaitzev, 1983
 = *mikii* Kertész, 1898 misid. (see Notes)
NEURATELIA Rondani, 1856
Neuratelia nemoralis (Meigen, 1818)
Neuratelia sintenisi Lackschewitz, 1937
PARATINIA Mik, 1874
Paratinia sciarina Mik, 1874
PHTHINIA Winnertz, 1864

- Phthinia congenita* Plassmann, 1984
Phthinia humilis Winnertz, 1864
Phthinia mira (Ostroverkhova, 1977)
 = *plassmanni* Caspers, 1984
Phthinia setosa Zaitzev, 1994
Phthinia winnertzi Mik, 1869
POLYLEPTA Winnertz, 1864
Polylepta borealis Lundström, 1912
Polylepta guttiventris (Zetterstedt, 1852)
SCIOPHILA Meigen, 1818
Sciophila adamsi Edwards, 1925
Sciophila antiqua Chandler, 1987
 = *hebes* auct. nec Johannsen, 1910 misid. (see Notes)
Sciophila bicuspidata Zaitzev, 1982
Sciophila buxtoni Freeman, 1956
Sciophila caesarea Chandler, 2001
Sciophila dziedzickii Edwards, 1925
Sciophila fenestella Curtis, 1837
Sciophila fuliginosa Holmgren, 1883
Sciophila geniculata Zetterstedt, 1838
Sciophila hirta Meigen, 1818
Sciophila karelica Zaitzev, 1982
Sciophila krysheni Polevoi, 2001
Sciophila limbatella Zetterstedt, 1852
Sciophila lutea Macquart, 1826
Sciophila minuta Zaitzev, 1982
Sciophila modesta Zaitzev, 1982
Sciophila nigronitida Landrock, 1925
Sciophila nonnisilva Hutson, 1979
Sciophila persubtilis Polevoi, 2001
Sciophila plurisetosa Edwards, 1921
Sciophila pomacea Chandler, 2006
 = *ochracea* Stephens in Walker, 1856 preocc.
Sciophila pseudoflexuosa Kurina, 1991
Sciophila rufa Meigen, 1830
Sciophila salassea Matile, 1983
Sciophila setosa Garrett, 1925
Sciophila thoracica Staeger, 1840
 = *quadriterga* (Hutson, 1979)
Sciophila varia (Winnertz, 1864)
Sciophila yakutica Blagoderov, 1992
GNORISTINAE Edwards, 1925
ACOMOPTERA Vockeroth, 1980

- Acomoptera difficilis* (Dziedzicki 1885)
Acomoptera spinistylus (Søli, 1993)
APOLEPHTHISA Grzegorzek, 1885
Apolephthisa subincana (Curtis, 1837)
BOLETINA Staeger, 1840
Boletina atridentata Polevoi & Hedmark, 2004
Boletina basalis (Meigen, 1818)
Boletina bidenticulata Sasakawa & Kimura, 1974
Boletina borealis Zetterstedt, 1852
Boletina brevicornis Zetterstedt, 1852
Boletina cincticornis (Walker, 1848)
Boletina cordata Polevoi & Hedmark, 2004
Boletina cornuta Zaitzev, 1994
Boletina digitata Lundström, 1914
Boletina dispecta Dziedzicki, 1885
Boletina dispectoides Jakovlev & Penttinen, 2007
Boletina dissipata Plassmann, 1986
Boletina dubia (Meigen, 1804)
Boletina edwardsi Chandler, 1992
Boletina falcata Polevoi & Hedmark, 2004
Boletina fennoscandica Polevoi & Hedmark, 2004
Boletina gripha Dziedzicki, 1885
Boletina griphoides Edwards, 1925
Boletina groenlandica Staeger, 1845
Boletina gusakovae Zaitzev, 1994
Boletina hedstroemi Polevoi & Hedmark, 2004
Boletina intermedia Lundström, 1915
Boletina jamalensis Zaitzev, 1994
 = *struthioides* Polevoi & Hedmark, 2004
Boletina kivachiana Polevoi & Hedmark, 2004
Boletina kurilensis Zaitzev, 1994
Boletina landrocki Edwards, 1924
Boletina lapponica Polevoi & Hedmark, 2004
Boletina lundbecki Lundström, 1912
Boletina lundstroemi Landrock, 1912
Boletina maculata Holmgren, 1870
 = *apicalis* (Walker, 1848) preocc.
Boletina minuta Polevoi in Zaitzev & Polevoi, 1995
Boletina moravica Landrock, 1912
Boletina nasuta (Haliday, 1839)
Boletina nigricans Dziedzicki, 1885
Boletina nigricoxa Staeger, 1840
Boletina nigrofusca Dziedzicki, 1885

- Boletina nitida* Grzegorzek, 1885
Boletina nitiduloides Zaitzev, 1994
Boletina onegensis Polevoi in Zaitzev & Polevoi, 1995
Boletina pallidula Edwards, 1925
Boletina palmata Polevoi, 2013
Boletina pectinunguis Edwards, 1932
Boletina pinusia Maximova, 2001
Boletina plana (Walker, 1856)
Boletina polaris Lundström, 1915
Boletina populina Polevoi in Zaitzev & Polevoi, 1995
Boletina pseudonitida Zaitzev, 1994
Boletina rejecta Edwards, 1941
Boletina sciarina Staeger, 1840
Boletina silvatica Dziedzicki, 1885
Boletina subtriangularis Polevoi & Hedmark, 2004
Boletina takagii Sasakawa & Kimura, 1974
Boletina tiroliensis Plassmann, 1980
Boletina triangularis Polevoi in Zaitzev & Polevoi, 1995
Boletina trispinosa Edwards, 1913
Boletina trivittata (Meigen, 1818)
Boletina verticillata Stackelberg, 1943
Boletina villosa Landrock, 1912
COELOSIA Winnertz, 1864
Coelosia bicornis Stackelberg, 1946
Coelosia flava (Staeger, 1840)
Coelosia fusca Bezzi, 1892
 = *silvatica* Landrock, 1918
Coelosia gracilis Johannsen, 1912
Coelosia limpida Plassmann, 1986
Coelosia tenella (Zetterstedt, 1852)
Coelosia truncata Lundström, 1909
DZIEDZICKIA Johannsen, 1909
Dziedzickia marginata (Dziedzicki, 1885)
ECTREPESTHONEURA Enderlein, 1911
Ectrepesthoneura colyeri Chandler, 1980
Ectrepesthoneura hirta (Winnertz, 1846)
Ectrepesthoneura nigra Zaitzev, 1984
Ectrepesthoneura ovata Ostroverkhova, 1977
 = *bucera* Plassmann, 1980
Ectrepesthoneura pubescens (Zetterstedt, 1860)
Ectrepesthoneura referta Plassmann, 1976
Ectrepesthoneura tori Zaitzev & Økland, 1994
GNORISTE Meigen, 1818

- Gnoriste apicalis* Meigen, 1818
Gnoriste bilineata Zetterstedt, 1852
GRZEGORZEKIA Edwards, 1941
Grzegorzekia collaris (Meigen, 1818)
HADRONEURA Lundström, 1906
Hadroneura palmeni Lundström, 1906
IMPLETA Plassmann, 1978
Impleta consorta Plassmann, 1978
KATATOPYGIA Martinsson & Kjærandsen, 2012
Katatopygia erythropygia (Holmgren, 1883)
Katatopygia sahlbergi (Lundström, 1906)
PALAEODOCOSIA Meunier, 1904
Palaeodocosia vittata (Coquillett, 1901)
 = *janickii* (Dziedzicki, 1923)
 = *alpicola* auct. nec (Strobl, 1894) misid. (see Notes)
SAIGUSAIA Vockeroth, 1980
Saigusia flaviventris (Strobl, 1894)
SPEOLEPTA Edwards, 1925
Speolepta leptogaster (Winnertz, 1864)
SYNAPHA Meigen, 1818
Synapha fasciata Meigen, 1818
Synapha vitripennis (Meigen, 1818)
SYNTEMNA Winnertz, 1864
Sytemna daisetsuzana Okada, 1938
Sytemna elegantia Plassmann, 1978
Sytemna hungarica (Lundström, 1912)
Sytemna morosa Winnertz, 1864
Sytemna nitidula Edwards, 1925
Sytemna oulankaensis Polevoi, 2003
Sytemna penicilla Hutson, 1979
Sytemna relictata (Lundström, 1912)
Sytemna setigera (Lundström, 1914)
 = *haagvari* Økland, 1995
Sytemna stylata Hutson, 1979
Sytemna stylatoides Zaitzev, 1994
TETRAGONEURA Winnertz, 1846
Tetragoneura ambigua Grzegorzek, 1885
Tetragoneura obirata Plassmann, 1990
Tetragoneura pudogensis Polevoi & Jakovlev, 2011
Tetragoneura ruuhijarvi Polevoi & Jakovlev, 2011
Tetragoneura sylvatica (Curtis, 1837)
LEIINAE Edwards, 1925
CLASTOBASIS Skuse, 1890

Clastobasis alternans (Winnertz, 1864)

DOCOSIA Winnertz, 1864

Docosia expectata Laštovka & Ševčík, 2006

Docosia flavicoxa Strobl, 1900

= *pallipes* Edwards, 1941

Docosia gilvipes (Haliday in Walker, 1856)

Docosia landrocki Laštovka & Ševčík, 2006

Docosia muelleri Plassmann, 1986

Docosia tibialis Laštovka & Ševčík, 2006

GREENOMYIA Brunetti, 1912

Greenomyia baikalica Zaitzev, 1994

Greenomyia borealis (Winnertz, 1864)

Greenomyia mongolica Laštovka & Matile, 1974

LEIA Meigen, 1818

Leia bilineata (Winnertz, 1864)

Leia bimaculata (Meigen, 1804)

Leia crucigera Zetterstedt, 1838

Leia cylindrica (Winnertz, 1864)

Leia fascipennis Meigen, 1818

Leia longiseta Barendrecht, 1938

Leia picta Meigen, 1818

Leia subfasciata (Meigen, 1818)

Leia winthemii Lehmann, 1822

RONDANIELLA Johannsen, 1909

Rondaniella dimidiata (Meigen, 1804)

MANOTINAE Edwards, 1925

MANOTA Williston, 1896

Manota unifurcata Lundström, 1913

MYCETOPHILINAE Newman, 1834

tribe Exechiini Edwards, 1925

ALLODIA Winnertz, 1864

sg. Allodia Winnertz, 1864

Allodia anglofennica Edwards, 1921

Allodia confusa Zaitzev, 2003

= *simplex* Zaitzev, 1983 preocc.

Allodia embla Hackman, 1971

Allodia lugens (Wiedemann, 1817)

Allodia lundstroemi Edwards, 1921

Allodia ornatcollis (Meigen, 1818)

Allodia pyxidiiformis Zaitzev, 1983

Allodia septentrionalis Hackman, 1971

Allodia truncata Edwards, 1921

Allodia tuomikoskii Hackman, 1971

- Allodia zaitzevi* Kurina, 1998
sg. *Brachycampta* Winnertz, 1864
Allodia adunca Zaitzev, 1992
Allodia alternans (Zetterstedt, 1838)
Allodia angulata (Lundström, 1913)
Allodia barbata (Lundström, 1909)
Allodia bohémica Ševčík, 2004
Allodia czernyi (Landrock, 1912)
Allodia foliifera (Strobl, 1910)
Allodia grata (Meigen, 1830)
Allodia huggerti Kjærandsen, 2007
Allodia neglecta Edwards, 1925
Allodia penicillata (Lundström, 1912)
Allodia pistillata (Lundström, 1911)
Allodia protenta Laštovka & Matile, 1974
 = *mendli* Plassmann, 1977
Allodia silvatica (Landrock, 1912)
Allodia subpistillata Ševčík, 1999
ALLODIOPSIS Tuomikoski, 1966
Allodiopsis domestica (Meigen, 1830)
Allodiopsis gracai Ševčík & Papp 2003
Allodiopsis korolevi Zaitzev, 1982
Allodiopsis pseudodomestica (Lackschewitz, 1937)
Allodiopsis rustica (Edwards, 1941)
ANATELLA Winnertz, 1864
Anatella ankeli Plassmann, 1977
Anatella aquila Zaitzev, 1989
Anatella brexia Chandler, 1994
Anatella ciliata Winnertz, 1864
Anatella crista Zaitzev, 1994
Anatella dampfi Landrock, 1924
Anatella dentata Zaitzev, 1989
Anatella emergens Caspers, 1987
Anatella flavicauda Winnertz, 1864
Anatella flavomaculata Edwards, 1925
Anatella gibba Winnertz, 1864
Anatella lenis Dziedzicki, 1923
Anatella maritima Ostroverkhova, 1979
Anatella minuta (Staeger, 1840)
Anatella novata Dziedzicki, 1923
Anatella setigera Edwards, 1921
Anatella simpatica Dziedzicki, 1923
Anatella turi Dziedzicki, 1923

- Anatella unguigera* Edwards, 1921
BRACHYPEZA Winnertz, 1864
sg. Brachypeza Winnertz, 1864
Brachypeza armata Winnertz, 1864
Brachypeza bisignata Winnertz, 1864
= *hilaris* Winnertz, 1864 preocc.
sg. Paracordyla Tuomikoski, 1966
Brachypeza obscura Winnertz, 1864
BREVICORNU Marshall, 1896
Brevicornu arcticoides Caspers, 1985
Brevicornu arcticum (Lundström, 1913)
Brevicornu auriculatum (Edwards, 1925)
Brevicornu beatum (Johannsen, 1912)
Brevicornu bellum (Johannsen, 1912)
Brevicornu bipartitum Laštovka & Matile, 1974
Brevicornu canescens (Zetterstedt, 1852)
= *griseolum* auct. nec (Zetterstedt, 1852)
Brevicornu cognatum Ostroverkhova, 1979
Brevicornu fasciculatum (Lackschewitz, 1937)
Brevicornu fennicum (Landrock, 1927)
Brevicornu fissicauda (Lundström, 1911)
Brevicornu foliatum (Edwards, 1925)
Brevicornu fuscipenne (Staeger, 1840)
Brevicornu glandis Laštovka & Matile, 1974
Brevicornu griseicolle (Staeger, 1840)
Brevicornu griseolum (Zetterstedt, 1852)
= *boreale* (Lundström, 1914)
Brevicornu improvisum Zaitzev, 1992
Brevicornu kingi (Edwards, 1925)
Brevicornu luteum (Landrock, 1925)
Brevicornu melanderi Zaitzev, 1988
Brevicornu nigrofuscum (Lundström, 1909)
Brevicornu occidentale Zaitzev, 1988
Brevicornu parafennicum Zaitzev in Zaitzev & Polevoi, 1995
Brevicornu proximum (Staeger, 1840)
Brevicornu rosmellitum Chandler, 2001
Brevicornu ruficorne (Meigen, 1838)
Brevicornu serenum (Winnertz, 1864)
Brevicornu sericoma (Meigen, 1830)
Brevicornu setulosum Zaitzev, 1988
Brevicornu spathulatum (Lundström, 1911)
Brevicornu verralli (Edwards, 1925)
CORDYLA Meigen, 1803

- Cordyla brevicornis* (Staeger, 1840)
Cordyla crassicornis Meigen, 1818
Cordyla fasciata Meigen, 1830
Cordyla fissa Edwards, 1925
Cordyla flaviceps (Staeger, 1840)
Cordyla fusca Meigen, 1804
Cordyla insons Laštovka & Matile, 1974
Cordyla murina Winnertz, 1864
Cordyla nitens Winnertz, 1864
Cordyla nitidula Edwards, 1925
 = *bergensis* (Barendrecht, 1938)
Cordyla parvipalpis Edwards, 1925
Cordyla pusilla Edwards, 1925
 = *sixi* (Barendrecht, 1938)
Cordyla semiflava (Staeger, 1840)
EXECHIA Winnertz, 1864
Exechia bicincta (Staeger, 1840)
Exechia borealis Lundström, 1912
Exechia cincta Winnertz, 1864
Exechia confinis Winnertz, 1864
Exechia contaminata Winnertz, 1864
Exechia cornuta Lundström, 1914
Exechia dentata Lundström, 1916
Exechia dizona Edwards, 1924
Exechia dorsalis (Staeger, 1840)
Exechia exigua Lundström, 1909
Exechia festiva Winnertz, 1864
Exechia frigida (Boheman, 1865)
Exechia fusca (Meigen, 1804)
Exechia lucidula (Zetterstedt, 1838)
Exechia lundstroemi Landrock, 1923
Exechia macula Chandler, 2001
 = *maculipennis* (Stannius, 1831) preocc.
Exechia micans Laštovka & Matile, 1974
Exechia nigra Edwards, 1925
Exechia nigrofusca Lundström, 1909
Exechia nigroscutellata Landrock, 1912
Exechia papyracea Stackelberg, 1948
Exechia parva Lundström, 1909
Exechia parvula (Zetterstedt, 1852)
 = *nana* Staeger, 1840 preocc.
Exechia pectinivalva Stackelberg, 1948
Exechia pseudocincta Strobl, 1910

- Exechia pseudofestiva* Lackschewitz, 1937
Exechia repanda Johannsen, 1912
Exechia repandoides Caspers, 1984
Exechia separata Lundström, 1912
Exechia seriata (Meigen, 1830)
 = *pallida* Stannius, 1831
Exechia similis Laštovka & Matile, 1974
Exechia spinigera Winnertz, 1864
Exechia spinuligera Lundström, 1912
Exechia styriaca Strobl, 1898
 = *sororcula* Lackschewitz, 1937
Exechia subfrigida Laštovka & Matile, 1974
Exechia unifasciata Lackschewitz, 1937
Exechia unimaculata (Zetterstedt, 1860)
EXECHIOPSIS Tuomikoski, 1966
sg. Exechiopsis Tuomikoski, 1966
Exechiopsis aemula Plassmann, 1984
Exechiopsis clypeata (Lundström, 1911)
Exechiopsis distendens (Lackschewitz, 1937)
Exechiopsis dumitrescae (Burghele-Balacesco, 1972)
Exechiopsis fimbriata (Lundström, 1909)
Exechiopsis forcipata Lackschewitz, 1937)
Exechiopsis grassatura (Plassmann, 1978)
Exechiopsis hammi (Edwards, 1925)
Exechiopsis indecisa (Walker, 1856)
Exechiopsis ingrlica Stackelberg, 1948
Exechiopsis intersecta (Meigen, 1818)
Exechiopsis januarii (Lundström, 1913)
Exechiopsis lackschewitziana (Stackelberg, 1948)
Exechiopsis landrocki (Lundström, 1912)
Exechiopsis ligulata (Lundström, 1913)
Exechiopsis pseudindecisa Laštovka & Matile, 1974
Exechiopsis pseudopulchella (Lundström, 1912)
Exechiopsis pulchella (Winnertz, 1864)
Exechiopsis sagittata Laštovka & Matile, 1974
Exechiopsis subulata (Winnertz, 1864)
sg. Xenexechia Tuomikoski, 1966
Exechiopsis crucigera (Lundström, 1909)
Exechiopsis davatchii Matile, 1969
Exechiopsis leptura (Meigen, 1830)
Exechiopsis membranacea (Lundström, 1912)
Exechiopsis perspicua (Johannsen, 1912)
Exechiopsis pollicata (Edwards, 1925)

- Exechiopsis praedita* (Plassmann, 1976)
Exechiopsis seducta (Plassmann, 1976)
Exechiopsis stylata Laštovka & Matile, 1974
MYROSIA Tuomikoski, 1966
Myrosia maculosa (Meigen, 1818)
NOTOLOPHA Tuomikoski, 1966
Notolopha brachycera (Zetterstedt, 1852)
 = *tuomikoskii* (Zaitzev & Maximova, 2000)
Notolopha cristata (Staeger, 1840)
Notolopha sibirica (Zaitzev & Maximova, 2000)
PSEUDEXECHIA Tuomikoski, 1966
Pseudexechia aurivernica Chandler, 1978
Pseudexechia canalicula (Johannsen, 1912)
Pseudexechia parallela (Edwards, 1925)
Pseudexechia pectinacea (Ostroverkhova, 1979)
Pseudexechia tristriata Stackelberg, 1969
Pseudexechia trivittata (Staeger, 1840)
PSEUDOBRACHYPEZA Tuomikoski, 1966
Pseudobrachypeza helvetica (Walker, 1856)
PSEUDORYMOSIA Tuomikoski, 1966
Pseudorymosia fovea (Dziedzicki, 1910)
 = *optiva* auct. nec (Dziedzicki, 1910) misid. (see Notes)
RYMOSIA Winnertz, 1864
Rymosia acta Dziedzicki, 1910
Rymosia affinis Winnertz, 1864
 = *gracilipes* Dziedzicki, 1910
Rymosia batava (Barendrecht, 1938)
Rymosia bifida Edwards, 1925
Rymosia britteni Edwards, 1925
Rymosia connexa Winnertz, 1864
Rymosia fasciata (Meigen, 1804)
Rymosia fraudatrix Dziedzicki, 1910
 ? = *spiniforceps* Matile, 1963
Rymosia guttata Lundström, 1912
Rymosia pinnata Ostroverkhova, 1979
Rymosia placida Winnertz, 1864
Rymosia setiger Dziedzicki, 1910
Rymosia signatipes (van der Wulp, 1859)
 = *winnertzi* Barendrecht, 1938
STIGMATOMERIA Tuomikoski, 1966
Stigmatomeria crassicornis (Stannius, 1831)
SYNPLASTA Skuse, 1890
 = **GYMNOGONIA** Tuomikoski, 1966

- Synplasta bayardi* Matile, 1971
Synplasta dulcia (Dziedzicki, 1910)
Synplasta exclusa (Dziedzicki, 1910)
 = *sintenisii* (Lackschewitz, 1937)
Synplasta gracilis Winnertz, 1864
 = *excogitata* auct. nec (Dziedzicki, 1910) misid. (see Notes)
Synplasta ingeniosa (Kidd 1969)
Synplasta praeformida (Dziedzicki, 1910)
Synplasta pseudingeniosa Zaitzev, 1993
Synplasta rufilatera (Edwards, 1941)
TARNANIA Tuomikoski, 1966
Tarnania fenestralis (Meigen, 1838)
Tarnania tarnanii (Dziedzicki, 1910)
 tribe Mycetophilini Newman, 1834
DYNATOSOMA Winnertz, 1864
Dynatosoma cochleare Strobl, 1895
Dynatosoma dihaeta Polevoi, 1995
 = *schachti* Plassmann, 1999
Dynatosoma fuscicorne (Meigen, 1818)
Dynatosoma majus Landrock, 1912
Dynatosoma nigromaculatum Lundström, 1913
 = *abdominale* auct. nec Staeger, 1840
Dynatosoma nobile Loew, 1873
Dynatosoma reciprocum (Walker, 1848)
Dynatosoma rufescens (Zetterstedt, 1838)
 = *bukowskii* Zaitzev, 1986
 = *lutescens* (Zetterstedt, 1852)
Dynatosoma silesiacum Ševčík, 2001
Dynatosoma thoracicum (Zetterstedt, 1838)
 = *norwegiense* Zaitzev & Økland, 1994
EPICYPTA Winnertz, 1864
Epicypa aterrma (Zetterstedt, 1852)
Epicypa fumigata (Dziedzicki, 1923)
Epicypa limnophila Chandler, 1981
Epicypa scatophora (Perris, 1849)
MYCETOPHILA Meigen, 1803
 = *FUNGIVORA* Meigen, 1800 suppr.
Mycetophila abbreviata Landrock, 1914
Mycetophila abiecta (Laštovka, 1963)
Mycetophila adumbrata Mik, 1884
Mycetophila alea Laffoon, 1965
 = *guttata* Dziedzicki, 1884

- Mycetophila attonsa* (Laffoon, 1957)
 = *uncta* Plassmann, 1999
- Mycetophila autumnalis* Lundström, 1909
- Mycetophila bialorussica* Dziedzicki, 1884
- * *Mycetophila biformis* Maximova, 2002 preocc. (see Notes)
- Mycetophila biusta* Meigen, 1818
- Mycetophila blanda* Winnertz, 1864
- Mycetophila bohémica* (Laštovka, 1963)
- Mycetophila boreocruciator* Ševčík, 2003
- Mycetophila brevitarsata* (Laštovka, 1963)
- Mycetophila caudata* Staeger, 1840
- Mycetophila cingulum* Meigen, 1830
- Mycetophila confluens* Dziedzicki, 1884
 = *fulva* Winnertz, 1864
- Mycetophila confusa* Dziedzicki, 1884
 = *affluctata* Edwards, 1941
- Mycetophila curviseta* Lundström, 1911
- Mycetophila deflexa* Chandler, 2001
- Mycetophila dentata* Lundström, 1915
- Mycetophila devioides* Bechev, 1988
- Mycetophila distigma* Meigen, 1830
 = *w-fuscum* Dziedzicki, 1884
- Mycetophila dziedzickii* Chandler, 1977
 = *obscura* Dziedzicki, 1884 nec Walker, 1848
- Mycetophila edwardsi* Lundström, 1913
- Mycetophila estonica* Kurina, 1992
- Mycetophila evanida* Laštovka, 1972
- Mycetophila exstincta* Loew, 1869
 = *mikii* Dziedzicki, 1884
- Mycetophila finlandica* Edwards, 1913
- Mycetophila flava* Winnertz, 1864
- Mycetophila forcipata* Lundström, 1913
- Mycetophila formosa* Lundström, 1911
- Mycetophila freyii* Lundström, 1909
- Mycetophila fungorum* (De Geer, 1776)
- Mycetophila gibbula* Edwards, 1925
- Mycetophila hetschkoi* Landrock, 1918
- Mycetophila ichneumonea* Say, 1823
- Mycetophila idonea* Laštovka, 1972
- Mycetophila immaculata* (Dziedzicki, 1884)
- Mycetophila laeta* Walker, 1848
 = *calva* Lundström, 1912

- Mycetophila lapponica* Lundström, 1906
Mycetophila lobulata Zaitzev, 1999
Mycetophila lubomirskii Dziedzicki, 1884
Mycetophila luctuosa Meigen, 1830
= *modesta* Winnertz, 1864
Mycetophila magnicauda Strobl, 1895
Mycetophila marginata Winnertz, 1864
Mycetophila mitis (Johannsen, 1912)
Mycetophila mohilevensis Dziedzicki, 1884
Mycetophila monstera Maximova, 2002
Mycetophila morata Zaitzev, 1999
Mycetophila moravica Landrock, 1925
Mycetophila morosa Winnertz, 1864
Mycetophila nigrofusca Dziedzicki, 1884
Mycetophila occultans Lundström, 1913
= *tarsata* Winnertz, 1864 preocc.
Mycetophila ocellus Walker, 1848
Mycetophila ornata Stephens, 1846
Mycetophila ostentanea Zaitzev, 1998
Mycetophila pecinai (Laštovka, 1963)
Mycetophila perpallida Chandler, 1993
Mycetophila pictula Meigen, 1830
= *bimaculata* Fabricius, 1805 nec Meigen, 1804
Mycetophila pseudoforcipata Zaitzev, 1998
Mycetophila pumila Winnertz, 1864
Mycetophila pyrenaica Matile, 1967
Mycetophila quadra Lundström, 1909
Mycetophila ruficollis Meigen, 1818
Mycetophila schnabli (Dziedzicki, 1884)
Mycetophila sigmoides Loew, 1869
Mycetophila signata Meigen, 1830
Mycetophila signatoides Dziedzicki, 1884
= *assimilis* Matile, 1967
Mycetophila sinuosa Plassmann & Schacht, 1999
Mycetophila sordida van der Wulp, 1874
Mycetophila stolidia Walker, 1856
Mycetophila stricklandi (Laffoon, 1957)
Mycetophila strigata Staeger, 1840
Mycetophila strigatoides Landrock, 1927
Mycetophila strobli Laštovka, 1972
Mycetophila stylata (Dziedzicki, 1884)
Mycetophila sublunata Zaitzev, 1998
Mycetophila subsigillata Zaitzev, 1999

- Mycetophila sumavica* (Laštovka, 1963)
Mycetophila triangularis Lundström, 1912
Mycetophila trinotata Staeger, 1840
Mycetophila uliginosa Chandler, 1988
Mycetophila unguiculata Lundström, 1913
Mycetophila uninotata Zetterstedt, 1852
Mycetophila unipunctata Meigen, 1818
Mycetophila xanthopyga Winnertz, 1864
Mycetophila zetterstedtii Lundström, 1906
PHRONIA Winnertz, 1864
Phronia aviculata Lundström, 1914
Phronia avidoides Jakovlev & Polevoi, 2009
Phronia biarcuata (Becker, 1908)
 = *johannae* Steenberg, 1924
 = *praecox* Edwards, 1925
Phronia bicolor Dziedzicki, 1889
 = *fusciventris* van Duzee, 1928
Phronia borealis Hackman, 1970
Phronia braueri Dziedzicki, 1889
 = *annulata* Winnertz, 1864
Phronia caliginosa Dziedzicki, 1889
 = *trivittata* Dziedzicki, 1889
Phronia cinerascens Winnertz, 1864
Phronia conformis (Walker, 1856)
 = *girschneri* Dziedzicki, 1889
Phronia cordata Lundström, 1914
Phronia coritanica Chandler, 1992
Phronia cornuta Lundström, 1914
Phronia crassitarsus Hackman, 1970
Phronia digitata Hackman, 1970
Phronia disgrega Dziedzicki, 1889
Phronia distincta Hackman, 1970
Phronia dziedzickii Lundström, 1906
Phronia egregia Dziedzicki, 1889
Phronia electa Dziedzicki, 1889
Phronia elegans Dziedzicki, 1889
Phronia elegantula Hackman, 1970
Phronia exigua (Zetterstedt, 1852)
Phronia fennica Jakovlev & Polevoi, 2009
Phronia flavipes Winnertz, 1864
Phronia forcipata Winnertz, 1864
Phronia forcipula Winnertz, 1864
Phronia gagnei Chandler, 1992

- Phronia gracilis* Hackman, 1970
Phronia humeralis Winnertz, 1864
Phronia interstincta Dziedzicki, 1889
Phronia longelamellata Strobl, 1898
= *minuta* Landrock, 1928
Phronia lutescens Hackman, 1970
Phronia maculata Dziedzicki, 1889
Phronia mutabilis Dziedzicki, 1889
Phronia mutila Lundström, 1911
Phronia nigricornis (Zetterstedt, 1852)
= *dubia* Dziedzicki, 1889
Phronia nigripalpis Lundström, 1909
Phronia nitidiventris (van der Wulp, 1859)
= *squalida* Winnertz, 1864
= *vitiosa* Winnertz, 1864
Phronia notata Dziedzicki, 1889
Phronia obscura Dziedzicki, 1889
Phronia obtusa Winnertz, 1864
Phronia peculiaris Dziedzicki, 1889
Phronia persimilis Hackman, 1970
Phronia petulans Dziedzicki, 1889
Phronia portschinskyi Dziedzicki, 1889
Phronia siebeckii Dziedzicki, 1889
Phronia signata Winnertz, 1864
= *austriaca* Winnertz, 1864
Phronia spinigera Hackman, 1970
Phronia strenua Winnertz, 1864
= *flavicollis* Winnertz, 1864 nom. dubium
Phronia subsilvatica Hackman, 1970
Phronia sudetica Dziedzicki, 1889
Phronia sylvatica Dziedzicki, 1889
Phronia taczanowskyi Dziedzicki, 1889
Phronia tenuis Winnertz, 1864
Phronia tiefii Dziedzicki, 1889
= *marginata* Dziedzicki, 1889
Phronia triangularis Winnertz, 1864
Phronia unica Dziedzicki, 1889
Phronia vitrea Plassmann, 1999
= *carli* Chandler, 2001
Phronia willistoni Dziedzicki, 1889
PLATUROCYPTA Enderlein, 1910
Platurocypta punctum (Stannius, 1831)

Platurocypta testata (Edwards, 1925)

SCEPTONIA Winnertz, 1864

Sceptonia concolor Winnertz, 1864

Sceptonia costata (van der Wulp, 1859)

Sceptonia demeijerei Bechev, 1997

Sceptonia flavipuncta Edwards, 1925

Sceptonia fumipes Edwards, 1925

Sceptonia fuscipalpis Edwards, 1925

Sceptonia hamata Ševčík, 2004

Sceptonia longisetosa Ševčík, 2004

Sceptonia membranacea Edwards, 1925

Sceptonia nigra (Meigen, 1804)

Sceptonia pughi Chandler, 1991

Sceptonia regni Chandler, 1991

Sceptonia tenuis Edwards, 1925

Sceptonia thaya Ševčík, 2004

TRICHONTA Winnertz, 1864

Trichonta apicalis Strobl, 1898

Trichonta atricauda (Zetterstedt, 1852)

= *adunca* Edwards, 1925

Trichonta beata Gagné, 1981

Trichonta bicolor Landrock, 1912

Trichonta bifida Lundström, 1909

Trichonta brevicauda Lundström, 1909

Trichonta canora Gagné, 1981

Trichonta clara Gagné, 1981

Trichonta comica Gagné, 1981

Trichonta comis Gagné, 1981

Trichonta concinna Gagné, 1981

Trichonta conjungens Lundström, 1909

Trichonta delicata Gagné, 1981

Trichonta eximia Gagné, 1981

Trichonta facilis Gagné, 1981

Trichonta falcata Lundström, 1911

Trichonta fissicauda (Zetterstedt, 1852)

= *claripennis* Lundström, 1914

Trichonta flavicauda Lundström, 1914

Trichonta fragilis Gagné, 1981

Trichonta fusca Landrock, 1918

Trichonta generosa Gagné, 1981

Trichonta girschneri Landrock, 1912

Trichonta hamata Mik, 1880

- Trichonta icenica* Edwards, 1925
Trichonta melanura (Staeger, 1840)
Trichonta nigritula Edwards, 1925
Trichonta palustris Maximova, 2002
Trichonta patens Johannsen, 1912
Trichonta perspicua van der Wulp, 1881
 = *mediastinalis* (Lundström, 1909)
Trichonta subfusca Lundström, 1909
Trichonta submaculata (Staeger, 1840)
Trichonta subterminalis Zaitzev & Menzel, 1996
Trichonta terminalis (Walker, 1856)
 * *Trichonta tristis* (Strobl, 1898) (see Notes)
Trichonta trivittata Lundström, 1916
Trichonta venosa (Staeger, 1840)
Trichonta vitta (Meigen, 1830)
Trichonta vulcani (Dziedzicki, 1889)
 = *appropinquata* (Strobl, 1900)
 ? = *trifida* Lundström, 1909 (see Notes)
Trichonta vulgaris Loew, 1869
 = *nigricauda* Lundström, 1906
ZYGOMYIA Winnertz, 1864
Zygomyia angusta Plassmann, 1977
Zygomyia humeralis (Wiedemann, 1817)
Zygomyia kiddi Chandler, 1991
Zygomyia notata (Stannius, 1831)
Zygomyia pictipennis (Staeger, 1840)
Zygomyia pseudohumeralis Caspers, 1980
Zygomyia semifusca (Meigen, 1818) (see Notes)
Zygomyia valida Winnertz, 1864
Zygomyia vara (Staeger, 1840)
Zygomyia zaitzevi Chandler, 1991

Excluded species

Bolitophilidae

Bolitophila spinigera Edwards, 1925 misidentified

Keroplastidae

Macrocera nigropicea Lundström, 1906 not found within present borders

Macrocera sudetica Landrock, 1924 only females, unidentifiable (see Notes)

Orfelia bicolor (Macquart, 1826) only females, unidentifiable (see Notes)

Mycetophilidae

- Allodia triangularis* (Strobl, 1895) misidentified
Cordyla styliforceps (Bukowski, 1934) misidentified (see Notes)
Exechiopsis unguiculata (Lundström, 1911) not found within present borders
Leptomorphus quadrimaculatus Matsumura, 1916 misidentified (see Notes)
Monoclona mikii Kertész, 1898 misidentified (see Notes)
Mycetophila gratiosa Winnertz, 1864 misidentified (see Notes)
Mycetophila lunata Meigen, 1804 misidentified (see Notes)
Mycetophila vittipes Zetterstedt, 1852 misidentified (see Notes)
Palaeodocosia alpicola (Strobl, 1895) misidentified (see Notes)
Pseudexechia trisignata (Edwards, 1913) not found within present borders
Pseudorymosia optiva (Dziedzicki, 1910) misidentified (see Notes)
Sciophila hebes Johannsen, 1910 misidentified (see Notes)
Synplasta excogitata (Dziedzicki, 1910) misidentified (see Notes)
Trichonta fidelis Gagné, 1981 mistake (see Notes)

Notes

- Cordyla styliforceps* (Bukowski, 1934)** was added to the list of Finnish insects by Silfverberg (2007) with a reference to Polevoi (2001) which most probably based on misidentified species (A.Polevoi, pers. comm).
- Leptomorphus quadrimaculatus* Matsumura, 1916** was added to the list of Finnish insects by Silfverberg (2001) with a reference to Polevoi (1995). This record has later shown to belong to *Leptomorphus subforcipatus* (Zaitzev and Ševčík 2002).
- Macrocera sudetica* Landrock, 1924** and ***Orfelia bicolor* (Macquart, 1826)** (= *basalis* Winnertz, 1864). Listed in Hackman (1980) by the only female specimen located in the collection of the Finnish Museum of Natural History “Diptera Fennica” that cannot be recognised. No further records from Finland.
- Monoclona mikii* Kertész, 1898.** Listed in Hackman (1980) by erroneously identified male specimen of *Monoclona braueri* and by the female specimen (both are located in “Diptera Fennica”) that cannot be recognized. Later this species has been recorded from Finland under its valid name, *Monoclona silvatica* (Jakovlev et al. 2014).
- Mycetophila gratiosa* Winnertz, 1864.** Listed in Hackman (1980) by erroneously identified male specimens of *Mycetophila luctuosa* located in “Diptera Fennica”.
- Mycetophila lunata* Meigen, 1804** was interpreted broadly in old sources, and although it was confirmed by Silfverberg (2001) with a reference to Polevoi (1995) this record has later shown to belong to another related species, *M. sublunata* Zaitzev, 1999. Hence, *M. lunata* still needs to be confirmed from Finland.
- Mycetophila vittipes* Zetterstedt, 1852.** Listed in Hackman (1980) by erroneously identified male specimens of *Mycetophila vittipes*-group located in “Diptera Fennica”.
- Palaeodocosia alpicola* (Strobl, 1895)** Listed in Hackman (1980) by erroneously identified male specimen of *P. vittata* located in “Diptera Fennica”.

- Pseudorymosia optiva* (Dziedzicki, 1910)**. The small genus *Pseudorymosia* contains only two known Palaearctic species, *P. fovea* (Dziedzicki, 1910) and *P. optiva* (Dziedzicki, 1910), that in fact might be only one species (Zaitzev 2003). Re-examination of specimens in the “Diptera Fennica” collections formerly identified as *P. optiva* and published by Hackman (1980) revealed that all of them are in fact the widely distributed *P. fovea* as interpreted in newer determination sources (Jakovlev et al. 2006).
- Sciophila hebes* Johannsen, 1910**. Recorded by Komonen (2001) by erroneously identified specimens of *Sciophila antiqua*.
- Synplasta excogitata* (Dziedzicki, 1910)**. Listed in Hackman (1980) by erroneously identified male specimen of *Synplasta gracilis*.
- Trichonta fidelis* Gagné, 1981**. Listed in Hackman (1980) with the note that *T. fidelis* Gagné was only a manuscript of Gagné (1981) at the time. Apparently Gagné changed his mind before publication and used this name for an oriental species instead (Hackman 1982).
- Zygomylia semifusca* (Meigen, 1818)**. Listed in Hackman (1980) as *Mycetophila semifusca*.

Doubtful and unrecognized species

- * ***Keroplatus tuvensis* Zaitzev, 1991**. This species might be a junior synonym of *Keroplatus testaceus* (Kjærandsen et al. 2007). With this reference, it was deleted from the list of Finnish insects by Silfverberg (2012), but this synonym has not been adopted in the checklist of North European fungus gnats (Kjærandsen 2012). Hereby we keep *K. tuvensis* in the Finnish checklist pending revision of the *K. testaceus* complex of species.
- * ***Mycetophila biformis* Maximova, 2002** preocc. Added by Jakovlev et al. (2014). This is a junior primary homonym of *Mycetophila biformis* Duret, 1992. A replacement name will be given by the author in the near future (Yulia Maximova, pers. comm.).
- * ***Trichonta tristis* (Strobl, 1898)**. Judging from illustration of Dziedzicki (1889), he actually illustrated this species as *Trichonta vulcani*. This makes *vulcani* a junior synonym of *tristis*. In this case, *Trichonta trifida* Lundström, 1909 becomes the valid species that we now call *vulcani* (J. Kjærandsen, pers. comm.). Here we list *T. vulcani* and *T. tristis* as valid species sensu Zaitzev (2003), figures 107,1 and 109,5.

Species listed by Hackman (1980) with a question marks

Five species, *Docosia flavicoxa* Strobl, 1900, *Cordyla bergensis* (Barendrecht, 1938), *Cordyla murina* Winnertz, 1864, *Mycetophila lunata* Meigen, 1804 and *Phronia petulans* Dziedzicki, 1889 were listed in the former checklist of Finnish Diptera (Hackman 1980) with a question marks. Later, Finnish records were confirmed for *D. flavicoxa* by Jakovlev et al. (2014), for *C. murina* by Jakovlev et al. (2006), and for *P. petulans* by Jakovlev and Polevoi (2009). *Cordyla bergensis* was excluded as a junior synonym of *Cordyla nitidula* (Jakovlev et al. 2006). *Mycetophila lunata* – see above.

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Checklist of the family Sciaridae (Diptera) of Finland

Pekka Vilkamaa¹

¹ Finnish Museum of Natural History, Zoology Unit, P.O. Box 17, FI-00014 University of Helsinki, Finland

Corresponding author: Pekka Vilkamaa (pekka.vilkamaa@helsinki.fi)

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Abstract

A checklist of the family Sciaridae (Diptera) recorded from Finland is provided. The genus *Sciarosoma* Chandler with a disputed family placement is also included in the list.

Keywords

Checklist, Finland, Diptera, Sciaridae, *Sciarosoma*

Introduction

Sciaridae, the black fungus gnats, is one of the large families in Sciaroidea, little studied and notoriously difficult in its taxonomy. Up-to-date keys are not available for all European species, but various publications must be consulted for identification. Our knowledge of Finnish fauna stems from two classic publications: Frey (1948) and Tuomikoski (1960) but Menzel and Möhrig (2000) made fundamental nomenclatorial changes in their study of the type materials of all Palearctic species.

As no records of Sciaridae in Finland were published between the publication of Tuomikoski's (1960) monograph on the family and Hackman's (1980) check-list

of Finnish nematoceran Diptera, the species lists in both works are essentially unchanged, despite some obvious lapses in the latter. Our knowledge of Finnish fauna has since grown mainly in the taxonomic treatment of various genera and species groups (see Vilkamaa et al. 2013). All species recorded in Finland in publications thus far, besides the most recent ones, appear in H. Silfverberg's compilations of changes to the Finnish insect fauna published every five years (for the latest one, see Silfverberg 2012).

With regard to nomenclature and generic classification, the present list follows the revisions of Menzel and Mohrig (2000) and Mohrig et al. (2013), although on the basis of phylogenetic analyses *Baeosciara* Tuomikoski, *Dolichosciara* Tuomikoski, *Peyrimhoffia* Kieffer, *Prosciara* Frey and *Mouffetina* Frey are regarded as genera (see Vilkamaa 2000, 2003, Vilkamaa and Hippa 2005, Shin et al. 2013). For names currently understood as junior synonyms, mostly only the names listed as valid in Tuomikoski (1960) are mentioned. For complete synonym lists, one can consult Menzel and Mohrig (2000) and Mohrig et al. (2013). Although some genera can be regarded as relatively well-known for the Finnish species they contain, for some others, such as the species-rich *Bradysia* Winnertz, many new species including undescribed ones may be present in the native fauna. Even so, together with Germany, Sweden and the United Kingdom, Finland can be considered one of the countries best known for its sciarid fauna.

Number of species:

World: 2600 species

Europe: 700 species

Finland: 338 species

Faunistic knowledge level in Finland: average

Checklist

Nematocera Dumeril, 1805

infraorder Bibionomorpha Hennig, 1954

superfamily Sciaroidea Billberg, 1820

SCIARIDAE Billberg, 1820

BAEOSCIARA Tuomikoski, 1960

Baeosciara discolor (Lengersdorf, 1928)

= *pusillima* (Frey, 1948)

Baeosciara sinuata (Menzel & Mohrig, 1997)

Baeosciara scotica (Edwards, 1925)

BRADYSIA Winnertz, 1867

Bradysia affinis (Zetterstedt, 1838)

= *pratincola* Tuomikoski, 1960

- Bradysia albanensis* (Lengersdorf, 1926)
Bradysia alpicola (Winnertz, 1867)
= *mutabilis* (Lengersdorf, 1926)
= *morio* auct. nec (Fabricius, 1794)
Bradysia angustata Tuomikoski, 1960
Bradysia angustostylata Menzel, 2005
Bradysia aprica (Winnertz, 1867)
Bradysia arcana Menzel & Mohrig, 1998
= *fenestralis* auct. nec (Zetterstedt, 1838)
Bradysia arcula Vilkkamaa, Salmela & Hippa, 2007
Bradysia ascenda Rudzinski, 1994
Bradysia bicolor (Meigen, 1818)
Bradysia bispinifera Mohrig & Krivosheina, 1983
Bradysia brevispina Tuomikoski, 1960
Bradysia browni (Shaw, 1935)
= *diversiabdrominalis* (Lengersdorf, 1941)
= *laurencei* Menzel & Mohrig, 2000
Bradysia cinerascens (Grzegorzek, 1884)
= *lanicauda* Tuomikoski, 1960
Bradysia confinis (Winnertz, 1867)
Bradysia excelsa Menzel & Mohrig, 1998
Bradysia flavipila Tuomikoski, 1960
Bradysia forcipulata (Lundbeck, 1898)
Bradysia forficulata (Bezzi, 1914)
= *nocturna* Tuomikoski, 1960
Bradysia fungicola (Winnertz, 1867)
Bradysia giraudii (Egger, 1862)
Bradysia globulifera (Lengersdorf, 1934)
Bradysia hilariformis Tuomikoski, 1960
Bradysia hilaris (Winnertz, 1867)
Bradysia holsatica Heller, 2004
Bradysia hortensis Heller, 2000
Bradysia impatiens (Johannsen, 1912)
= *difformis* (Frey, 1948)
= *paupera* Tuomikoski, 1960
Bradysia inusitata Tuomikoski, 1960
Bradysia iridipennis (Zetterstedt, 1838)
Bradysia lapponica (Lengersdorf, 1926)
Bradysia latiterga Tuomikoski, 1960
Bradysia leptoptera Tuomikoski, 1960
Bradysia lilienthalae Mohrig & Menzel, 1990
Bradysia lobulifera Frey, 1948
Bradysia longicauda Mohrig & Menzel, 1990

- Bradysia longicubitalis* (Lengersdorf, 1924)
= *cinereovittata* Frey, 1948
- Bradysia minima* Mohrig & Mamaev, 1989
- Bradysia moesta* Frey, 1948
= *albosetosa* Frey, 1948
- Bradysia moestula* Tuomikoski, 1960
- Bradysia nervosa* (Meigen, 1818)
- Bradysia nitidicollis* (Meigen, 1818)
= *atroparva* Frey, 1948
- Bradysia normalis* Frey, 1948
- Bradysia ocellaris* (Comstock, 1882)
- Bradysia pallipes* (Fabricius, 1787)
= *brunnipes* (Meigen, 1804)
= *picipes* (Zetterstedt, 1838)
- Bradysia pauperata* (Winnertz, 1867)
- Bradysia peraffinis* Tuomikoski, 1960
- Bradysia pilistriata* Frey, 1948
- Bradysia placida* (Winnertz, 1867)
= *fimbricauda* Tuomikoski, 1960
- Bradysia polonica* (Lengersdorf, 1929)
- Bradysia praecox* (Meigen, 1818)
- Bradysia rectinervis* Frey, 1948
- Bradysia reflexa* Tuomikoski, 1960
- Bradysia regularis* (Lengersdorf, 1934)
= *subnervosa* Frey, 1948
- Bradysia rufescens* (Zetterstedt, 1852)
- Bradysia scabricornis* Tuomikoski, 1960
= *subscabricornis* Mohrig & Menzel, 1990
- Bradysia siberica* Komarova, 2001
- Bradysia spinostyla* Mohrig & Menzel, 1990
- Bradysia strigata* (Staeger, 1840)
- Bradysia subalpina* Frey, 1948
- Bradysia subamoena* Mohrig & Krivosheina, 1989
- Bradysia submoesta* Mohrig & Krivosheina, 1989
- Bradysia tilicola* (Loew, 1850)
= *amoena* (Winnertz, 1867)
= *cellarum* Frey, 1948
- Bradysia trivittata* (Staeger, 1840)
- Bradysia vagans* (Winnertz, 1868)
= *callicera* Frey, 1948
- Bradysia vernalis* (Zetterstedt, 1851)
- Bradysia zonata* Rudzinski, 1993
- BRADYSIOPSIS** Tuomikoski, 1960

- Bradysiopsis vittata* (Meigen, 1830)
 = *leucotricha* (Tuomikoski, 1960)
Bradysiopsis vittigera (Zetterstedt, 1851)
CAMPTOCHAETA Hippa & Vilkamaa, 1994
Camptochaeta austriaca Heller, 2012
Camptochaeta bournei (Shaw, 1941)
Camptochaeta camptochaeta (Tuomikoski, 1960)
Camptochaeta consimilis (Holmgren, 1869)
Camptochaeta delicata (Lengersdorf, 1935)
Camptochaeta duplicata Hippa & Vilkamaa, 1994
Camptochaeta fallax Hippa & Vilkamaa, 1994
Camptochaeta hirtula (Lengersdorf, 1934)
 = *fulvicollis* (Tuomikoski, 1960)
Camptochaeta propria Hippa & Vilkamaa, 1994
Camptochaeta scanica Hippa & Vilkamaa, 1994
Camptochaeta sicilicula Hippa & Vilkamaa, 1994
Camptochaeta simulator Hippa & Vilkamaa, 1994
Camptochaeta stammeri (Lengersdorf, 1940)
Camptochaeta tenuipalpalis (Mohrig & Antonova, 1978)
Camptochaeta uniformis (Mohrig & Menzel, 1990)
Camptochaeta vivax (Frey, 1948)
Camptochaeta xystica Hippa & Vilkamaa, 1994
CHAETOSCIARA Frey, 1942
Chaetosciara estlandica (Lengersdorf, 1929)
CLAUSTROPYGA Hippa, Vilkamaa & Mohrig, 2003
Claustropyga acanthostyla (Tuomikoski, 1960)
Claustropyga brevichaeta (Mohrig & Antonova, 1978)
Claustropyga clausa (Tuomikoski, 1960)
Claustropyga corticis (Mohrig & Antonova, 1978)
Claustropyga ctenophora Hippa, Vilkamaa & Mohrig, 2003
Claustropyga heteroclausa (Rudzinski, 1991)
Claustropyga refrigerata (Lengersdorf, 1930)
Claustropyga subcorticis (Mohrig & Krivosheina, 1985)
CORYNOPTERA Winnertz, 1867
Corynoptera barbata Tuomikoski, 1960
Corynoptera bicuspidata (Lengersdorf, 1926)
 = *gymnops* Tuomikoski, 1960
Corynoptera bipartita Mohrig & Krivosheina, 1985
Corynoptera blanda (Winnertz, 1867)
Corynoptera boletiphaga (Lengersdorf, 1940)
 = *geogenia* Tuomikoski, 1960
Corynoptera breviformis Mohrig & Krivosheina, 1983
Corynoptera cracentis Vilkamaa, Hippa & Heller, 2013

- Corynoptera cuniculata* (Lengersdorf, 1942)
= *caldariorum* Tuomikoski, 1960
- Corynoptera defecta* (Frey, 1948)
- Corynoptera dentata* (Bukowski & Lengersdorf, 1936)
- Corynoptera deserta* Heller & Menzel, 2006
= *minutula* (Bukowski & Lengersdorf, 1936)
- Corynoptera dubitata* Tuomikoski, 1960
- Corynoptera fera* Mohrig & Heller, 1992
- Corynoptera flavicauda* (Zetterstedt, 1855)
- Corynoptera forcipata* (Winnertz, 1867)
- Corynoptera furcifera* Mohrig & Mamaev, 1987
- Corynoptera globiformis* (Frey, 1945)
- Corynoptera hypopygialis* (Lengersdorf, 1926)
= *piniphila* (Lengersdorf, 1940)
- Corynoptera inari* Vilkkamaa, Hippa & Heller, 2013
- Corynoptera inexpectata* Tuomikoski, 1960
- Corynoptera irmgardis* (Lengersdorf, 1930)
- Corynoptera levis* Tuomikoski, 1960
- Corynoptera luteofusca* (Bukowski & Lengersdorf, 1936)
- Corynoptera marinae* Mohrig & Krivosheina, 1986
- Corynoptera melanochaeta* Mohrig & Menzel, 1992
- Corynoptera membranigera* (Kieffer, 1903)
= *trispina* Tuomikoski, 1960
- Corynoptera montana* (Winnertz, 1869)
- Corynoptera ninae* Hippa, Vilkkamaa & Heller, 2010
- Corynoptera obscuripila* Tuomikoski, 1960
- Corynoptera parvula* (Winnertz, 1867)
= *uncinata* (Hippa & Vilkkamaa, 1994)
- Corynoptera parvulaformis* Mohrig, 1985
- Corynoptera penna* (Petty, 1918)
= *alneti* Hippa, Vilkkamaa & Heller, 2010
- Corynoptera perochoeta* (Mohrig & Menzel, 1990)
- Corynoptera plusiochaeta* Hippa, Vilkkamaa & Heller, 2010
- Corynoptera polana* Rudzinski, 2009
- Corynoptera postforcipata* Rudzinski, 1993
- Corynoptera postglobiformis* Mohrig, 1993
- Corynoptera praeforcipata* Mohrig & Mamaev, 1987
- Corynoptera quantula* (Hippa & Vilkkamaa, 1994)
- Corynoptera saccata* Tuomikoski, 1960
- Corynoptera saetistyla* Mohrig & Krivosheina, 1985
- Corynoptera salmelai* Vilkkamaa, Hippa & Heller, 2013
- Corynoptera sphenoptera* Tuomikoski, 1960
- Corynoptera spiciforceps* Vilkkamaa, Hippa & Heller, 2013

- Corynoptera spinifera* Tuomikoski, 1960
Corynoptera subblanda Tuomikoski, 1960
Corynoptera subdentata Mohrig, 1985
Corynoptera subparvula Tuomikoski, 1960
Corynoptera subsedula Mohrig & Mamaev, 1987
Corynoptera subtetrachaeta Komarova, 1995
Corynoptera subtilis (Lengersdorf, 1929)
 = *longicornis* (Bukowski & Lengersdorf, 1936)
Corynoptera subvariegata Rudzinski, 1992
Corynoptera tetrachaeta Tuomikoski, 1960
Corynoptera trepida (Winnertz, 1867)
 = *clinochaeta* Tuomikoski, 1960
Corynoptera triacantha Tuomikoski, 1960
Corynoptera tumidula Hippa, Vilkamaa & Heller, 2010
Corynoptera tuomikoskii Hippa, Vilkamaa & Heller, 2013
Corynoptera unidentata (Hippa & Vilkamaa, 1994)
Corynoptera vagula Tuomikoski, 1960
Corynoptera verrucifera (Lengersdorf, 1952)
Corynoptera voluptuosa Mohrig & Mamaev, 1987
Corynoptera waltraudis Mohrig & Mamaev, 1987
Corynoptera winnertzi Mohrig, 1993
COSMOSCIARA Frey, 1942
Cosmosciara pernicioso (Edwards, 1922)
CRATYNA Winnertz, 1867
 = *Plastosciara* Berg, 1899
 = *Decembrina* Frey, 1948
 = *Dendrosociara* Frey, 1948
sg. Cratyna Winnertz, 1867
Cratyna ambigua (Lengersdorf, 1934)
 = *latiforceps* (Bukowski & Lengersdorf, 1936)
Cratyna atra Winnertz, 1867
 = *pictiventris* (Kieffer, 1898)
Cratyna betulae (Mohrig & Mamaev, 1992)
Cratyna brevipflagellata (Mohrig & Mamaev, 1985)
Cratyna monumenta Rudzinski, 2009
Cratyna pernitida (Edwards, 1915)
Cratyna schineri (Winnertz, 1867)
Cratyna sicata Vilkamaa, Hippa & Heller, 2013
Cratyna symplecta (Rudzinski, 1991)
Cratyna uliginosa (Lengersdorf, 1929)
Cratyna vaporariorum (Frey, 1948)
sg. Diversicratyna Menzel & Mohrig, 1998
Cratyna spiculosa (Rudzinski, 1993)

sg. *Spathobdella* Frey, 1948*Cratyna colei* (Freeman, 1990)= *brachialis* auct. nec (Winnertz, 1871)*Cratyna falcata* (Tuomikoski, 1960)*Cratyna falcifera* (Lengersdorf, 1933)*Cratyna longispina* (Petty, 1918)= *tuberculata* (Tuomikoski, 1960)*Cratyna nobilis* (Winnertz, 1867)= *brachialis* (Winnertz, 1867)*Cratyna perplexa* (Winnertz, 1867)= *socialis* (Winnertz, 1871)= *brevicornis* (Tuomikoski, 1957)**CTENOSCIARA** Tuomikoski, 1960*Ctenosciara exigua* Salmela & Vilkamaa, 2005*Ctenosciara hyalipennis* (Meigen, 1804)**DICHOPYGINA** Vilkamaa, Hippa & Komarova, 2004*Dichopygina aculeata* Vilkamaa, Hippa & Komarova, 2004*Dichopygina intermedia* (Mohrig & Krivosheina, 1982)*Dichopygina nigrohalteralis* (Frey, 1948)*Dichopygina ramosa* Vilkamaa, Hippa & Komarova, 2004**DOLICHOSCIARA** Tuomikoski, 1960*Dolichosciara flavipes* (Meigen, 1804) 185*Dolichosciara hippai* Komarova & Vilkamaa, 2006*Dolichosciara nigrovittata* (Strobl, 1910)*Dolichosciara orcina* (Tuomikoski, 1960)*Dolichosciara ornata* (Winnertz, 1867)*Dolichosciara saetosa* (Lengersdorf, 1929)*Dolichosciara spissispina* Vilkamaa, Hippa & Heller, 2013**EPIDAPUS** Haliday, 1851**sg. *Epidapus*** Haliday, 1851*Epidapus alnicola* (Tuomikoski, 1957)*Epidapus atomarius* (De Geer, 1778)*Epidapus gracilis* (Walker, 1848)*Epidapus ignotus* (Lengersdorf, 1942)= *gracilior* (Tuomikoski, 1960)*Epidapus microthorax* (Börner, 1903)= *gracilicornis* (Lengersdorf, 1926)*Epidapus schillei* (Börner, 1903)= *titan* Frey, 1948= *intermittens* Tuomikoski, 1959**sg. *Pseudoaptanogyna*** Vimmer, 1926*Epidapus abieticola* Frey, 1948*Epidapus bispinulosus* Mohrig & Kauschke, 1994

- Epidapus echinatum* Mohrig & Kozánek, 1992
Epidapus ignavus (Lengersdorf, 1941)
KEILBACHIA Mohrig, 1987
Keilbachia ferrata (Hippa & Vilkamaa, 1994)
LEPTOSCIARELLA Tuomikoski, 1960
sg. *Hirtipennia* Mohrig & Menzel, 1997
Leptosciarella hirtipennis (Zetterstedt, 1838)
Leptosciarella holotricha Mohrig & Menzel, 1997
sg. *Leptosciarella* Tuomikoski, 1960
Leptosciarella brevior (Tuomikoski, 1960)
Leptosciarella brevipalpa (Mohrig & Menzel, 1992)
Leptosciarella claviforceps (Tuomikoski, 1960)
Leptosciarella dimera (Tuomikoski, 1960)
Leptosciarella fuscipalpa (Mohrig & Mamaev, 1979)
Leptosciarella helvetica (Rudzinski, 1992)
Leptosciarella hispida (Winnertz, 1871)
Leptosciarella ignis Heller, 2012
Leptosciarella krille Heller, 2012
Leptosciarella melanoma (Mohrig & Menzel, 1990)
Leptosciarella nudinervis (Tuomikoski, 1960)
Leptosciarella pilosa (Staeger, 1840)
Leptosciarella reducta Heller & Menzel, 2013
Leptosciarella rejecta (Winnertz, 1867)
Leptosciarella scutellata (Staeger, 1840)
 = *elegans* (Winnertz, 1867)
Leptosciarella subcoarctata Mohrig & Menzel, 1997
Leptosciarella subpilosa (Edwards, 1925)
Leptosciarella subspinulosa (Edwards, 1925)
Leptosciarella subviatica Mohrig & Menzel, 1997
Leptosciarella trochanterata (Zetterstedt, 1851)
 = *coarctata* (Winnertz, 1867)
Leptosciarella truncata (Tuomikoski, 1960)
Leptosciarella viatica (Winnertz, 1867)
Leptosciarella viaticella Mohrig & Krivosheina, 1979
Leptosciarella yerburyi (Freeman, 1983)
sg. *Leptospina* Mohrig & Menzel, 1997
Leptosciarella atricha (Tuomikoski, 1960)
sg. *Trichosiopsis* Tuomikoski, 1960
Leptosciarella tuberculigera (Tuomikoski, 1960)
LYCORIELLA Frey, 1942
sg. *Coelostylina* Tuomikoski, 1960
Lycoriella eflagellata Tuomikoski, 1960
Lycoriella freyi Tuomikoski, 1960

sg. *Hemineurina* Tuomikoski, 1960*Lycoriella algida* (Frey, 1948)*Lycoriella cochleata* (Rübsaamen, 1898)*Lycoriella conspicua* (Winnertz, 1867)*Lycoriella inflata* (Winnertz, 1867)= *venosa* auct. nec (Staeger, 1840)*Lycoriella modesta* (Staeger, 1840)*Lycoriella piristylata* Vilkamaa, Hippa & Heller, 2013*Lycoriella thuringiensis* Menzel & Mohrig, 1991*Lycoriella vitticollis* (Holmgren, 1883)= *permutata* (Lundbeck, 1900)**sg. *Lycoriella*** Frey, 1942*Lycoriella aberrans* Tuomikoski, 1960*Lycoriella acutostylia* Mohrig & Menzel, 1990*Lycoriella agraria* (Felt, 1897)= *cellaris* (Lengersdorf, 1934)*Lycoriella approximatonevris* (Frey, 1948)*Lycoriella brevipila* Tuomikoski, 1960*Lycoriella inconspicua* Tuomikoski, 1960*Lycoriella ingenua* (Dufour, 1839)= *solani* (Winnertz, 1871)*Lycoriella latilobata* Menzel & Mohrig, 2000*Lycoriella lundstromi* (Frey, 1948)*Lycoriella micria* Mohrig & Menzel, 1990*Lycoriella minutula* Mohrig & Krivosheina, 1987*Lycoriella pallidior* Tuomikoski, 1960*Lycoriella parva* (Holmgren, 1869)= *obscuratipes* (Frey, 1948)= *curvispina* Tuomikoski, 1960*Lycoriella sativae* (Johannsen, 1912)= *castanescens* (Lengersdorf, 1940)= *fucorum* (Frey, 1948)*Lycoriella subterranea* (Märkel, 1844)= *vanderwieli* (Schmitz, 1920)*Lycoriella tenera* Vilkamaa, Hippa & Heller, 2013*Lycoriella weberi* Menzel & Heller, 2013**MOUFFETINA** Frey, 1942*Mouffetina exopolita* (Coquillett, 1900)*Mouffetina pulchricornis* (Edwards, 1925)*Mouffetina silvestris* (Mohrig & Antonova, 1978)**PEYERIMHOFFIA** Kieffer, 1903*Peyerimhoffia crassistylata* (Frey, 1948)*Peyerimhoffia infera* Vilkamaa & Hippa, 2005

- Peyerimhoffia menzeli* Vilkamaa & Hippa, 2005
Peyerimhoffia quadrifera Vilkamaa, Hippa & Heller, 2013
Peyerimhoffia sepei Hippa & Vilkamaa, 2005
Peyerimhoffia thula Vilkamaa & Hippa, 2005
Peyerimhoffia vagabunda (Winnertz, 1867)
 = *brachyptera* Kieffer, 1903
PHYTOSCIARA Frey, 1942
Phytosciara halterata (Lengersdorf, 1926)
Phytosciara macrotricha (Lengersdorf, 1926)
PNYXIA Johannsen, 1912
Pnyxia scabiei (Hopkins, 1895)
PNYXIOPSIS Tuomikoski, 1960
Pnyxiopsis aliger Tuomikoski, 1960
Pnyxiopsis degener (Tuomikoski, 1957)
PROSCIARA Frey, 1942
Prosciara furtiva Vilkamaa & Hippa, 1996
Prosciara plusiochaeta Hippa & Vilkamaa, 1991
Prosciara porrecta (Lengersdorf, 1929)
Prosciara producta (Tuomikoski, 1960)
Prosciara prosciarioides (Tuomikoski, 1960)
Prosciara unguolata (Winnertz, 1867)
PSEUDOLYCORIELLA Menzel & Mohrig, 1998
Pseudolycoriella brunnea (Bukowski & Lengersdorf, 1936)
Pseudolycoriella japonensis (Mohrig & Menzel, 1992)
Pseudolycoriella koreensis (Mohrig & Menzel, 1992)
Pseudolycoriella monticula (Mohrig & Menzel, 1992)
Pseudolycoriella nodulosa (Mohrig & Krivosheina, 1985)
Pseudolycoriella paludum (Frey, 1948)
Pseudolycoriella subbruckii (Mohrig & Hövemeyer, 1992)
SCATOPSCIARA Edwards, 1927
sg. Scatopsciara Edwards, 1927
Scatopsciara atomaria (Zetterstedt, 1851)
 = *vivida* (Winnertz, 1867)
Scatopsciara bucera Rudzinski, 1994
Scatopsciara calamophila Frey, 1948
Scatopsciara curviforceps (Bukowski & Lengersdorf, 1936)
 = *myrmecophila* Frey, 1948
Scatopsciara edwardsi Freeman, 1983
Scatopsciara fluviatilis (Lengersdorf, 1940)
Scatopsciara geophila (Tuomikoski, 1960)
Scatopsciara multispina (Bukowski & Lengersdorf, 1936)
Scatopsciara neglecta Menzel & Mohrig, 1998
Scatopsciara pusilla (Meigen, 1818)

- Scatopsiara subcalamophila* Menzel & Mohrig, 1991
Scatopsiara subciliata Tuomikoski, 1960
Scatopsiara tricuspadata (Winnertz, 1867)
 = *degenerans* (Frey, 1948)
Scatopsiara vitripennis (Meigen, 1818)
sg. Xenopygina Frey, 1948
Scatopsiara gabyae (Heller, 1998)
Scatopsiara obliqua Vilkamaa, Hippa & Heller, 2013
Scatopsiara paradoxa (Frey, 1948)
Scatopsiara simillima (Tuomikoski, 1960)
SCHWENCKFELDINA Frey, 1942
Schwenckfeldina carbonaria (Meigen, 1830)
Schwenckfeldina pectinea Menzel & Mohrig, 1991
SCIARA Meigen, 1803
Sciara flavimana Zetterstedt, 1851
Sciara hebes (Loew, 1869)
 = *mendax* Tuomikoski., 1960
 = *nursei* Freeman, 1983
 = *ulrichi* Menzel & Mohrig, 1998
Sciara helvola Winnertz, 1867
Sciara hemerobioides (Scopoli, 1763)
 = *thomae* (Linnaeus, 1767)
Sciara humeralis Zetterstedt, 1851
Sciara lackschewitzi (Lengersdorf, 1934)
SCYTHROPOCHROA Enderlein, 1911
Scythropochroa quercicola (Winnertz, 1869)
Scythropochroa radialis Lengersdorf, 1926
TRICHOSIA Winnertz, 1867
 = *Leptosciara* Frey, 1942
 = *Lestremioides* Frey, 1942
Trichosia Winnertz, 1867
Trichosia acrotricha Tuomikoski, 1960
Trichosia borealis (Frey, 1942)
Trichosia confusa Menzel & Mohrig, 1997
Trichosia flavicoxa Tuomikoski, 1960
Trichosia diota (Garrett, 1925)
Trichosia glabra (Meigen, 1830)
Trichosia habilis (Johannsen, 1912)
 = *edwardsi* (Lengersdorf, 1930)
Trichosia morio (Fabricius, 1794)
 = *caudata* (Walker, 1848)
Trichosia splendens Winnertz, 1867
Trichosia ussurica Mohrig & Antonova, 1978

XYLOSCIARA Tuomikoski, 1957

sg. Protoxylosciara Tuomikoski, 1960

Xylosciara longiforceps (Bukowski & Lengersdorf, 1936)

sg. Xylosciara Tuomikoski, 1957

Xylosciara heptacantha Tuomikoski, 1957

Xylosciara lignicola (Winnertz, 1867)

Xylosciara microdon (Frey, 1948)

Xylosciara misella (Frey, 1948)

Xylosciara phryganophila (Frey, 1948)

Xylosciara senta Vilkkamaa, Hippa & Heller, 2013

Xylosciara spinata (Petty, 1918)

= *betulae* Tuomikoski, 1960

Xylosciara steleocera Tuomikoski, 1960

Xylosciara trimera Tuomikoski, 1960

Xylosciara validinervis Tuomikoski, 1960

ZYGONEURA Meigen, 1830

sg. Allozygoneura Menzel & Mohrig, 1998

Zygoneura calthae Tuomikoski, 1960

sg. Zygoneura Meigen, 1830

Zygoneura sciarina Meigen, 1830

UNPLACED IN SCIAROIDEA

SCIAROSOMA Chandler, 2002

Sciarosoma nigriclava (Strobl, 1898)

= *borealis* Chandler, 2002

Excluded species

Lycoriella auripila (Winnertz, 1867), misidentified in Tuomikoski (1960).

Bradysia betuleti (Lengersdorf, 1940), misidentified in Tuomikoski (1960).

Bradysia subbetuleti Mohrig & Krivosheina, 1989, misidentified in Salmela and Vilkkamaa (2005).

Corynoptera concinna (Winnertz, 1867), misidentified in Tuomikoski (1960).

Corynoptera bistrispina (Bukowski & Lengersdorf, 1936), misidentified in Tuomikoski (1960).

Trichosia trochanterata (Zetterstedt, 1851), misidentified in Tuomikoski (1960).

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Checklist of the ‘lower Brachycera’ of Finland: Tabanomorpha, Asilomorpha and associated families (Diptera)

Jere Kahanpää¹, Kaj Winqvist², Theo Zeegers³

1 Finnish Museum of Natural History, Zoology Unit, P.O. Box 17, FI-00014 University of Helsinki, Finland
2 Mikonkatu 3 C 52, FI-20100 Turku, Finland **3** Eikenlaan 24, 3768 EV Soest, the Netherlands

Corresponding author: *Jere Kahanpää* (jere.kahanpaa@helsinki.fi)

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Abstract

A checklist of the ‘lower Brachycera’ of Finland is presented. This part of the complete checklist of Finnish Diptera covers the families Acroceridae, Asilidae, Athericidae, Bombyliidae, Mythicomyiidae, Rhagionidae, Scenopinidae, Stratiomyidae, Tabanidae, Therevidae, Xylomyidae and Xylophagidae.

Keywords

Species list, Finland, Diptera, biodiversity, faunistics

Introduction

This part of the checklist of the Diptera of Finland covers non-eremoneuran true flies (Diptera: Brachycera). The brachyceran flies excluded from the clade Eremoneura are often called the ‘lower Brachycera’ due to their basal position in the true fly tree of life. It remains unclear whether this assemblage of families is a monophyletic clade. There are also several models for the relative relationships of the various superfamilies and families. A simple classification scheme following Marshall (2012) is adopted for this

checklist. Only two infraorders, Tabanomorpha and Asilomorpha, are recognized. The presentation order of families follows Woodley et al. (2009).

World catalogues have recently been published for Stratiomyidae (Woodley 2001, 2011b), Xylomyidae (Woodley 2011a), Xylophagidae (Woodley 2011c), Bombyliidae (Evenhuis and Greathead 1999, 2003) and Mythicomyiidae (Evenhuis 2002). The Finnish species were last listed by Kahanpää and Winqvist (2005). Five species have been added since the last checklist: *Haematopota italica* Meigen, 1804, *Lasiopogon septentrionalis* Lehr, 1984, *Nemotelus infortunatus* Kahanpää, 2010, *Xylophagus inermis* Krivosheina & Krivosheina, 2000 and *Zabrachia tenella* (Jaenicke, 1866) (see Kahanpää 2013, Cannings and Kahanpää 2013, Kahanpää 2010, this paper, and Krivosheina and Rozkošný 1990 respectively). Table 1 summarizes the current family species counts for the world, Europe (based on Fauna Europaea), and Finland.

Tabanomorpha

The stratiomyoid and xylophagoid lineages are often treated as infraorders (Woodley et al. 2009).

The soldierflies (Stratiomyidae) are very diverse in the tropics but the species diversity decreases sharply towards the higher latitudes. The wood soldier flies (xylomyids) is a small fly family associated with dead wood. The Fauna Entomologica Scandinavica series has a volume on stratiomyoid flies (Rozkošný 1973). A new *Nemotelus* species was recently described from Finland (Kahanpää 2010a).

The Finnish rhagionids are relatively well known but a few additional species could occur in the country. *Priolina* is a problematic genus and the number of recognized species in Northern Europe has varied from two to seven during the last century. Athericidae was traditionally placed as a subfamily of Rhagionidae, but it seems more closely associated with Tabanidae (Marshall 2012). Itämies et al. (1990, 1993) have studied the distribution of *Atherix ibis* in Finland.

The Finnish xylophagid fauna is relatively well sampled. Adults of the North European species can be identified using Nartshuk (1988) or Kahanpää (2009). The larvae can also be identified at least at the last larval stage (Stubbs and Drake 2001, Krivosheina and Krivosheina 1966).

The tabanid nomenclature (especially *Hybomitra*) is quite convoluted and records in older publications must be taken with a grain of salt. Karvonen (1969) summarized the distribution of tabanids in Finland, but this work is now partially obsolete due to the difficulties in identifying *Hybomitra* and *Haematopota* before Chvála et al. (1972) was published. For identification of North European tabanids Chvála et al. (1972) complemented with pictures in Zeegers and van Haaren (2000) or Krčmar et al. (2011) is recommended. An illustrated guide to the Finnish species is in preparation (A. Haarto, unpublished).

Table 1. Number of species in tabanomorph and asilomorph families plus Acroceridae.

Family	Number of species in			Level of knowledge
	World	Europe	Finland	
<i>Tabanomorpha:</i>				
Stratiomyidae	2715 (Woodley 2001, 2011b)	141	29	good
Xylomyidae	138 (Woodley 2011a)	13–14	1	good
Xylophagidae	134 (Woodley 2011c)	8	5	average–good
Rhagionidae	694 (Pape et al. 2011)	85	15–16	average–good
Athericidae	124 (Pape et al. 2011)	10	1	good
Tabanidae	4405 (Pape et al. 2011)	213	38–39	good
<i>Asilomorpha:</i>				
Asilidae	7513 (Pape et al. 2011)	524	35	good
Bombyliidae	~5000 (Evenhuis and Greathead 1999, 2003)	335	18–19	good
Mythicomyiidae	~330 (Evenhuis 2002, Pape et al. 2011)	30	1	average
Scenopinidae	416 (Pape et al. 2011)	17	3	good
Therevidae	1129 (Pape et al. 2011)	99	17	average–good
<i>unplaced:</i>				
Acroceridae	392 (Pape et al. 2011)	34	5	average

Asilomorpha

The asilids and bombyliids of Finland are rather well known from a faunistic point of view but little is known about their ecology. Most of the North European species are easy to identify but problems with *Villa* resulted in a cascade of name changes in the late 20th century. Falck (2009) and Blöchlinger (2008) are good starting points for identifying *Villa* adults. François (1969) has male genitalia figures for some of the more difficult *Villa* species. The Mythicomyiidae or micro bee flies were long seen as a subfamily of Bombyliidae.

Identifying *Thereva* species was also fraught with difficulties in the past but by the end of the 20th century the North European fauna was pretty well understood. A review of the Finnish therevid fauna with keys has recently been published (Haarto and Winqvist 2006). The window flies, Scenopinidae, is a smallish asiloid lineage associated with the therevids. It has even been proposed they are a specialized subgroup of the Therevidae (Woodley 2009).

Acroceridae

The small-headed flies (Acroceridae) are a fly family of obscure origin. Affinities with Nemestrinidae, Tabanoidea, Stratiomyoidea, Bombyliidae and Asilomorpha have been proposed (see Marshall 2012 for further discussion). Finnish acrocerid records are mostly of single adults caught by sweep-netting, although Storå (1956) found groups of 20–40 *Acrocera orbiculus* swarming on a coastal meadow. The acrocerid species seem to have declined in abundance during the 20th century. Four of our five Finnish species are now on the national red list (Kahanpää 2010b).

Checklist part I: Tabanomorpha (sensu lato)

suborder Brachycera Macquart, 1834

clade Orthorrhapha Brauer, 1863

superfamily Stratiomyoidea Latreille, 1802

STRATIOMYIDAE Latreille, 1802

BERIDINAE Westwood, 1838

BERIS Latreille, 1802

Beris chalybata (Forster, 1771)

Beris clavipes (Linnaeus, 1767)

Beris fuscipes Meigen, 1820

Beris hauseri Stuke, 2004

= *strobli* auct. nec. Dušek & Rozkošný, 1968

Beris morrisii Dale, 1841

NEMOTELINAE Kertész, 1912

NEMOTELUS Geoffroy, 1762

sg. *Camptopelta* Williston, 1917

Nemotelus nigrinus Fallén, 1817

sg. *Nemotelus* Geoffroy, 1762

Nemotelus infortunatus Kahanpää, 2010

Nemotelus notatus Zetterstedt, 1842

Nemotelus uliginosus (Linnaeus, 1767)

PACHYGASTRINAE Loew, 1856

BERKSHIRIA Johnson, 1914

= *Pseudowallacea* Kertész, 1921

Berkshiria hungarica (Kertész, 1921)

= *albistylum* misid.

= *barovskii* misid.

NEOPACHYGASTER Austen, 1901

Neopachygaster meromelas (Dufour, 1841)

= *orbitalis* (Wahlberg, 1854)

ZABRACHIA Coquillett, 1901

Zabrachia minutissima (Zetterstedt, 1838)

Zabrachia tenella (Jaenicke, 1866) see Notes

SARGINAE Walker, 1834

CHLOROMYIA Duncan, 1837

Chloromyia formosa (Scopoli, 1763)

MICROCHRYSA Loew, 1855

Microchrysa cyaneiventris (Zetterstedt, 1842)

Microchrysa flavicornis (Meigen, 1822)

Microchrysa polita (Linnaeus, 1758)

SARGUS Fabricius, 1798*Sargus cuprarius* (Linnaeus, 1758)*Sargus flavipes* Meigen, 1822= *nigripes* Zetterstedt, 1842= *splendens* auct. nec. Meigen, 1804*Sargus iridatus* (Scopoli, 1763)*Sargus rufipes* Wahlberg, 1854**STRATIOMYINAE** Latreille, 1802

tribe Oxycerini Enderlein, 1914

OXYCERA Meigen, 1803*Oxycera centralis* Loew, 1863= *centralis* Frey, 1911 preocc.= *freyi* Lindner, 1938*Oxycera dives* Loew, 1845*Oxycera trilineata* (Linnaeus, 1767)

tribe Stratiomyini Latreille, 1802

ODONTOMYIA Meigen, 1803*Odontomyia angulata* (Panzer, 1798)*Odontomyia argentata* (Fabricius, 1794)*Odontomyia microleon* (Linnaeus, 1758)**OPLODONTA** Rondani, 1863*Oplodontha viridula* (Fabricius, 1775)**STRATIOMYS** Geoffroy, 1762*Stratiomys singularior* (Harris, 1776)= *furcata* Fabricius, 1794**XYLOMYIDAE** Verrall, 1901**XYLOMYA** Rondani, 1861*Xylomya czekanovskii* Pleske, 1925= *interrupta* auct. nec. (Pleske, 1926)= *maculata* auct. nec. (Meigen, 1804)

superfamily Xylophagoidea Fallén, 1810

XYLOPHAGIDAE Fallén, 1810**XYLOPHAGUS** Meigen, 1803= *Erinna* Meigen, 1800 suppr.*Xylophagus ater* Meigen, 1804 see Notes= *compeditus* Wiedemann, 1820*Xylophagus cinctus* (De Geer, 1776)*Xylophagus inermis* Krivosheina & Krivosheina, 2000 see Notes= *matsumurae* misid.*Xylophagus junki* (Szilády, 1932)

Xylophagus kowarzi (Pleske, 1925) see Notes
= *ater* auct. nec. Meigen, 1804

superfamily Rhagionoidea Latreille, 1802

RHAGIONIDAE Latreille, 1802

RHAGIONINAE Latreille, 1802

RHAGIO Fabricius, 1775

Rhagio annulatus (De Geer, 1776)

Rhagio lineola Fabricius, 1794

Rhagio maculatus (De Geer, 1776)

Rhagio notatus (Meigen, 1820)

Rhagio scolopaceus (Linnaeus, 1758)

Rhagio tringarius (Linnaeus, 1758)

CHRYSOPILINAE Bezzi, 1903

CHRYSOPILUS Macquart, 1826

Chrysopilus auratus (Fabricius, 1805)

 ?= *cristatus* (Fabricius, 1775) nom. dubium

Chrysopilus luteolus (Fallén, 1814)

Chrysopilus nubecula (Fallén, 1814)

? *Chrysopilus suomianus* (Szilády, 1934) see Notes

SPANIINAE Rondani, 1856

OMPHALOPHORA Becker, 1900

Omphalophora oculata Becker, 1900

 = *lapponica* Frey, 1911

PTIOLINA Zetterstedt, 1842

Ptiolina nigra Zetterstedt, 1842

Ptiolina nigrina Wahlgren, 1854 see Notes

Ptiolina nitida Wahlgren, 1854

Ptiolina obscura (Fallén, 1814)

SPANIA Meigen, 1830

Spania nigra Meigen, 1830

SYMPHOROMYIA Frauenfeld, 1867

sg. *Paraphoromyia* Becker, 1921

Symphoromyia crassicornis (Panzer, 1806)

ATHERICIDAE Nowicki, 1873

ATHERIX Meigen, 1803

Atherix ibis (Fabricius, 1798)

superfamily Tabanoidea Latreille, 1802

TABANIDAE Latreille, 1802

CHRYSOPSINAE Lutz, 1905

tribe Chrysopsini Lutz, 1905

CHRYSOPS Meigen, 1803**sg. *Chrysops*** Meigen, 1803*Chrysops caecutiens* (Linnaeus, 1758)*Chrysops divaricatus* Loew, 1858*Chrysops nigripes* Zetterstedt, 1838= *lapponicus* Loew, 1858*Chrysops relictus* Meigen, 1820= *melanopleurus* Wahlberg, 1848*Chrysops rufipes* Meigen, 1820*Chrysops sepulcralis* (Fabricius, 1794)*Chrysops viduatus* (Fabricius, 1794)= *pictus* Meigen, 1820**TABANINAE** Latreille, 1802

tribe Haematopotini Enderlein, 1922

HAEMATOPOTA Meigen, 1803*Haematopota crassicornis* Wahlberg, 1848*Haematopota italica* Meigen, 1804*Haematopota pluvialis* (Linnaeus, 1758)= *italica* misid.? *Haematopota subcylindrica* Pandellé, 1883 see Notes**HEPTATOMA** Meigen, 1803*Heptatoma pellucens* (Fabricius, 1776)

tribe Tabanini Latreille, 1802

ATYLOTUS Osten Sacken, 1876*Atylotus fulvus* (Meigen, 1820)*Atylotus plebeius* (Fallén, 1817)*Atylotus rusticus* (Linnaeus, 1767)*Atylotus sublunaticornis* (Zetterstedt, 1842)**HYBOMITRA** Enderlein, 1922*Hybomitra arpad* (Szilády, 1923)*Hybomitra astuta* (Osten Sacken, 1876) see Notes= *polaris* (Frey, 1915)*Hybomitra auripila* (Meigen, 1820) see Notes= *aterrima* (Meigen, 1820)*Hybomitra bimaculata* (Macquart, 1826)= *tropica* misid.?= *solstitialis* (Meigen, 1820) see Notes*Hybomitra borealis* (Fabricius, 1781)= *lapponicus* (Wahlberg, 1848)*Hybomitra ciureai* (Séguy, 1937)= *schineri* Lyneborg, 1959

- Hybomitra distinguenda* (Verrall, 1909)
Hybomitra kaurii Chvála & Lyneborg, 1970
 = *borealis* misid.
Hybomitra lundbecki Lyneborg, 1959
 = *fulvicornis* misid.
Hybomitra lurida (Fallén, 1817)
Hybomitra montana (Meigen, 1820)
Hybomitra muehlfeldi (Brauer, 1880)
 = *flaviceps* (Zetterstedt, 1842)
Hybomitra nigricornis (Zetterstedt, 1842)
Hybomitra nitidifrons (Szilády, 1914)
 = *confinis* misid.
Hybomitra sexfasciata (Hine, 1923)
 = *borealis anderi* Kauri, 1951
Hybomitra tarandina (Linnaeus, 1758)
Hybomitra tropica (Linnaeus, 1758)
TABANUS Linnaeus, 1758
Tabanus autumnalis Linnaeus, 1761
Tabanus bovinus Linnaeus, 1758
Tabanus bromius Linnaeus, 1758
Tabanus cordiger Meigen, 1820
Tabanus maculicornis Zetterstedt, 1842
Tabanus sudeticus Zeller, 1842

Checklist part 2: Asilomorpha

suborder Brachycera Macquart, 1834
 clade Orthorrhapha Brauer, 1863

superfamily Asiloidea Latreille, 1802

- ASILIDAE** Latreille, 1802
 ASILINAE Latreille, 1802
ASILUS Linnaeus, 1758
Asilus crabroniformis Linnaeus, 1758
DIDYSMACHUS Lehr, 1996
Didysmachus picipes (Meigen, 1820)
DYSMACHUS Loew, 1860
Dysmachus trigonus (Meigen, 1804)
MACHIMUS Loew, 1849
Machimus setibarbis Loew, 1849
NEOITAMUS Osten Sacken, 1878

- Neoitamus cothurnatus* (Meigen, 1820)
Neoitamus cyanurus (Loew, 1849)
Neoitamus socius (Loew, 1871)
NEOMOCHTHERUS Osten Sacken, 1878
Neomochtherus pallipes (Meigen, 1820)
PAMPONERUS Loew, 1849
Pamponerus germanicus (Linnaeus, 1758)
PHILONICUS Loew, 1849
Philonicus albiceps (Meigen, 1820)
RHADIURGUS Loew, 1849
Rhadiurgus variabilis (Zetterstedt, 1838)
TOLMERUS Loew, 1849
Tolmerus atricapillus (Fallén, 1814)
Tolmerus pyragra (Zeller, 1840)
LAPHRINAE Macquart, 1838
tribe Andrenosomatini Hull, 1962
ANDRENOSOMA Rondani, 1856
Andrenosoma albibarbe (Meigen, 1820)
tribe Laphrini Macquart, 1838
CHOERADES Walker, 1851
Choerades fuliginosus (Panzer, 1798)
Choerades gilvus (Linnaeus, 1758)
Choerades igneus (Meigen, 1820)
Choerades lapponicus (Zetterstedt, 1842)
Choerades marginatus (Linnaeus, 1758)
LAPHRIA Meigen, 1803
Laphria flava (Linnaeus, 1761)
Laphria gibbosa (Linnaeus, 1758)
LEPTOGASTRINAE Schiner, 1862
LEPTOGASTER Meigen, 1803
Leptogaster cylindrica (De Geer, 1776)
Leptogaster guttiventris Zetterstedt, 1842
STENOPOGONINAE Hull, 1962
tribe Dioctriini Hendel, 1936
DIOCTRIA Meigen, 1803
Dioctria atricapilla Meigen, 1804
Dioctria cothurnata Meigen, 1820
Dioctria hyalipennis (Fabricius, 1794)
Dioctria oelandica (Linnaeus, 1758)
Dioctria rufipes (De Geer, 1776)
tribe Stegopogonini Hull, 1962
CYRTOPOGON Loew, 1847
Cyrtopogon flavimanus (Meigen, 1820)

Cyrtopogon lapponicus (Zetterstedt, 1838)

Cyrtopogon lateralis (Fallén, 1814)

Cyrtopogon luteicornis (Zetterstedt, 1842)

= *luteicornis* var. *pollinosus* Frey, 1911

Cyrtopogon pulchripes Loew, 1871

tribe Stichopogonini Hardy, 1930

LASIOPOGON Loew, 1847

Lasiopogon cinctus (Fabricius, 1781)

Lasiopogon septentrionalis Lehr, 1984

BOMBYLIIDAE Latreille, 1802

PHTHIRIINAE Becker, 1913

tribe Phthiriini Becker, 1913

PHTHIRIA Meigen, 1803

Phthiria pulicaria (Mikan, 1796)

BOMBYLIINAE Latreille, 1802

tribe Bombyliini Latreille, 1802

BOMBYLIUS Linnaeus, 1758

sg. **Bombylius** Linnaeus, 1758

Bombylius discolor Mikan, 1796

Bombylius major Linnaeus, 1758

Bombylius minor Linnaeus, 1758

= *allibarbis* Zetterstedt, 1842

= *albibarbis* emend.

SYSTOECHUS Loew, 1855

Systoechus ctenopterus (Mikan, 1796)

= *sulphureus* (Mikan, 1796)

Systoechus gradatus (Wiedemann, 1820)

ANTHRACINAE Latreille, 1804

tribe Anthracini Latreille, 1804

ANTHRAX Scopoli, 1763

Anthrax anthrax (Schrank, 1781)

Anthrax trifasciatus Meigen, 1804

= *leucogaster* Wiedemann, 1820

Anthrax varius Fabricius, 1794

tribe Exoprosopini Becker, 1913

EXOPROSOPA Macquart, 1840

Exoprosopa capucina (Fabricius, 1781)

MICOMITRA Bowden, 1964

Micomitra stupida (Rossi, 1790)

tribe Villini Hull, 1973

HEMIPENTHES Loew, 1869

Hemipenthes maura (Linnaeus, 1758)

Hemipenthes morio (Linnaeus, 1758)

THYRIDANTHRAX Osten Sacken, 1886

Thyridanthrax fenestratus (Fallén, 1814)

VILLA Lioy, 1864

Villa cingulata (Meigen, 1804)

? *Villa halteralis* (Kowarz, 1883) see Notes

Villa hottentotta (Linnaeus, 1758)

Villa modesta (Meigen, 1820)

Villa occulta (Wiedemann, 1820)

MYTHICOMYIIDAE Melander, 1902

GLABELLULINAE Cockerell, 1914

GLABELLULA Bezzi, 1902

Glabella arctica (Zetterstedt, 1838)

SCENOPINIDAE Burmeister, 1835

SCENOPINUS Latreille, 1802

Scenopinus fenestralis (Linnaeus, 1758)

Scenopinus niger (De Geer, 1776)

Scenopinus sp. A see Notes

= *vitripennis* misid.

THEREVIDAE Newman, 1834

THEREVINAE Newman, 1834

ACROSATHE Irwin & Lyneborg, 1981

Acrosathe annulata (Fabricius, 1805)

DIALINEURA Rondani, 1856

Dialineura anilis (Linnaeus, 1761)

DICHOGLENA Irwin & Lyneborg, 1981

Dichoglana nigripennis (Ruthe, 1831)

PANDIVIRILIA Irwin & Lyneborg, 1981

Pandivirilia eximia (Meigen, 1820)

PSILOCEPHALA Zetterstedt, 1838

Psilocephala imberbis (Fallén, 1814)

SPIRIVERPA Irwin & Lyneborg, 1981

Spiriverpa lunulata (Zetterstedt, 1838)

= *clausa* (Frey, 1911)

THEREVA Latreille, 1796

Thereva cinifera Meigen, 1830

= *subfasciata* Schummel, 1830

Thereva fuscinervis Zetterstedt, 1838

Thereva handlirschi Kröber, 1912

= *praestans* Collin, 1948

Thereva inornata Verrall, 1909
Thereva lanata Zetterstedt, 1838
Thereva microcephala Loew, 1847
Thereva nobilitata (Fabricius, 1775)
Thereva plebeja (Linnaeus, 1758)
Thereva strigata (Fabricius, 1794)
Thereva unica (Harris, 1780)
 = *bipunctata* Meigen, 1820
Thereva valida Loew, 1847
 = *circumscripta* auct. nec. Loew, 1847

Checklist part 3: families of uncertain position (*incertae sedis*)

suborder Brachycera Macquart, 1834
 clade Orthorrhapha Brauer, 1863
 ? superfamily Nemestrinoidea Griffith & Pidgeon, 1832

ACROCERIDAE Leach, 1815

ACROCERA Meigen, 1803

 = *Paracrocera* Mik, 1886

sg. Acrocera Meigen, 1803

Acrocera orbiculus (Fabricius, 1787)

 = *globulus* (Panzer, 1804)

 = *borealis* Zetterstedt, 1838

OGCODES Latreille, 1796

sg. Ogcodes Latreille, 1796

Ogcodes borealis Cole, 1919 see Notes

Ogcodes gibbosus (Linnaeus, 1758)

Ogcodes nigripes (Zetterstedt, 1838) see Notes

Ogcodes pallipes Latreille in Olivier, 1812

Excluded species

Anastoechus nitidulus (Fabricius, 1794) labeling mistake

Beris geniculata Curtis, 1830 misidentified

Clorismia ardea (Fabricius, 1794) not found within present borders

Clorismia rustica (Panzer, 1804) not found within present borders

Choerades fimbriata (Meigen, 1820) mistake

Choerades ursulus (Loew, 1851) misidentified see Notes

Chrysopilus splendidus (Meigen, 1820) mistake

Cyrtopogon maculipennis (Macquart, 1834) labeling mistake

- Epitriptus arthriticus* (Zeller, 1840) mistake
Machimus gonatistes (Zeller, 1840) not found within present borders
Odontomyia hydroleon (Linnaeus, 1758) not found within present borders
Pandivirilia nigroanalis (Kröber, 1928) misidentified
Phthiria canescens Loew, 1846 not found within present borders
Tabanus miki Brauer, 1880 misidentified
Tolmerus cingulatus (Fabricius, 1781) mistake
Villa fasciata (Meigen, 1804) not found within present borders
 = *circumdata* (Meigen, 1820)
 = *venusta* (Meigen, 1820)
Villa longicornis Lyneborg, 1965 not found within present borders
Villa panisca (Rossi, 1790) not found within present borders
 = *circumdata* auct. nec. (Meigen, 1820)
Xylophagus matsumurae Miyatake, 1965 misidentified

Notes

***Choerades ursulus* (Loew, 1851)** is a poorly known taxon. It was synonymized with *C. fuliginosus* by Lehr (1991) but later considered valid by Bosák and Hradský (2001). Kahanpää and Winqvist (2005) accepted it as a Finnish species but upon re-examination we consider it most likely that the single Finnish specimen previously identified as *C. ursulus* is a dark male of *C. fuliginosus*.

***Chrysopilus suomianus* (Szilády, 1934)**. The type locality of this species is Enontekiö, Finland (Szilády 1934). Unfortunately the type material seems lost and the name is probably best treated as a *nomen dubium*. Based on Szilády's original description it may be a dark form of *C. nubecula*.

***Hybomitra astuta* (Osten Sacken, 1876)**. Kahanpää and Winqvist (2005) could not locate any material in Finnish collections. Several new records of this species have since been made and its presence in Finland is now confirmed.

***Hybomitra auripila* (Meigen, 1820)**. The synonymy of *Hybomitra auripila* (Meigen, 1820) with *H. aterrima* (Meigen, 1820) was established by Schacht (1994) and is accepted here. Schiner (1862) already mentioned *H. aterrima* as synonym to *H. auripila*. Since we consider him to be the first revisor, the name *H. auripila* is valid under the current Code.

***Hybomitra solstitialis* (Meigen, 1820)** has long been known to be a problematic taxon. It is separated from *H. bimaculata* (Macquart, 1826) based on color characters alone. The examined Finnish material includes a range of intermediates between typical *H. bimaculata* and *H. solstitialis* forms. It seems likely that the two names are synonymous, but types should be consulted before synonymy is formally published.

***Haematopota subcylindrica* Pandellé, 1883**. First recorded from Finland by Vuorimies (1984). Unfortunately the specimens listed in his paper could not be found and their identification remains somewhat doubtful.

- Ogcodes borealis** Cole, 1919. A single Finnish specimen collected in the mid-19th century is the sole Palearctic record of this species. Originally identified and published by Hackman (1970), the record was later confirmed by Kahanpää and Winqvist (2005). *O. borealis* Cole *sensu* Schlinger (1960) may be a species complex.
- Ogcodes nigripes** (Zetterstedt, 1838) is probably a senior synonym of *O. zonatus* Erichson, 1840.
- Ptiolina nigrina** Wahlgren, 1854 may be a synonym of *P. nigra* Zetterstedt, 1842.
- Scenopinus** sp. A is an apparently undescribed species near *S. fenestralis* with black femora. It occurs widely in Finland in association with bird nests.
- Villa halteralis** (Kowarz, 1883). See Kahanpää and Winqvist (2005) for a discussion of the single supposed Finnish record of this species.
- Xylophagus ater** Meigen, 1804. This name has widely been used for two species. Old Finnish checklists (Frey *et al.* 1941, Hackman 1980) followed the model also used in the world checklist Woodley (2011c) and used this name for the species also known as *Xylophagus kowarzi* (Pleske, 1925). On the British Isles the name *X. ater* is used as a senior name for *X. compeditus* Wiedemann in Meigen, 1820. According to Alexander and Clements (1991) and Chandler (1998a, b) the British usage is correct and it is followed here. Thus, *X. ater* is the common species with females easily identified by the three stripes of dusting on the mesonotum.
- Xylophagus inermis** Krivosheina & Krivosheina, 2000 was described as a subspecies of *X. matsumurae* Miyatake, 1965 = *maculatus* Matsumura, 1916 (preoccupied by *X. maculatus* Meigen, 1804) (Krivosheina and Krivosheina 2000). It was raised to a full species status in the recent world catalogue (Woodley 2011c). All collected Finnish specimens formerly identified as *X. matsumurae* were examined and they belong to *X. inermis*.
- Zabrachia tenella** (Jaenicke, 1866). First recorded from Finland by Krivosheina and Rozkošný (1990). We have examined the Finnish *Zabrachia* material and confirmed the presence of both *Z. tenella* and *Z. minutissima* in the country.

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Checklist of the Empidoidea of Finland (Insecta, Diptera)

Jere Kahanpää¹

¹ Finnish Museum of Natural History, Zoology Unit, P.O. Box 17, FI-00014 University of Helsinki, Finland

Corresponding author: Jere Kahanpää (jere.kahanpaa@helsinki.fi)

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Abstract

An updated checklist of the Atelestidae, Brachystomatidae, Dolichopodidae, Empididae and Hybotidae (Diptera) recorded from Finland is presented. The genera with uncertain placement within superfamily Empidoidea (= the *Iteaphila* group) are also included in this paper.

Keywords

Checklist, Finland, Diptera, Atelestidae, Brachystomatidae, Dolichopodidae, Hybotidae, Empididae

Introduction

Empidoidea (dance flies and long-legged flies) is one of the most diverse lineages of Diptera with some 13,000 species currently recognized worldwide (Pape et al. 2011) and many more still undescribed. The superfamily is generally accepted as monophyletic, but its subdivision into families, subfamilies and tribes is still being debated.

The families Atelestidae, Brachystomatidae, Hybotidae and Empididae were traditionally all included in Empididae *sensu lato*. Chvála (1983) split the empidids into five

Table 1. Number of species by family.

Family	Number of species in			Level of knowledge
	World (Pape et al. 2011)	Europe	Finland	
Atelestidae	11	4	2	average
Brachystomatidae	147	13	4	average
Dolichopodidae	7235	790	260	good
Hybotidae	1972	442	143–144	average
Empididae	3049	803	175	average

families: Empididae *sensu stricto*, Hybotidae, Atelestidae, Dolichopodidae and Microphoridae. Sinclair and Cumming (2006) analyzed the whole superfamily Empidoidea, elevated Brachystomatidae to a full family and transferred Microphorinae to the long-legged flies (Dolichopodidae). Two of the Finnish genera, *Anthepiscopus* Becker and *Iteaphila* Zetterstedt, remain unassigned on family level (Sinclair and Cumming 2006, Shamshev and Sinclair 2009). The classification proposed by Sinclair and Cumming (2006) is adopted for this checklist.

The world fauna of the Empidoidea has recently been catalogued by Yang et al. (2006, 2007). The Finnish species were last listed by Kahanpää and Winqvist (2005) for Atelestidae, Brachystomatidae, Hybotidae and Empididae (plus Microphorinae) and by Kahanpää and Grichanov (2004) for Dolichopodidae. Two updates to the dolichopodid checklist have since been published (Kahanpää 2006, 2013).

Checklist

suborder Brachycera Macquart, 1834
 clade Eremoneura Lameere, 1906
 superfamily Empidoidea Latreille, 1809

Uncertain family position within Empidoidea (*incertae familiae*)

ITEAPHILA Zetterstedt, 1838

Iteaphila macquarti Zetterstedt, 1838

Iteaphila nitidula Zetterstedt, 1838

= *obscura* Zetterstedt, 1849

ANTHEPISCOPUS Becker, 1891

Anthepiscopus oedalinus (Zetterstedt, 1838)

EMPIDIDAE Latreille, 1809

HEMERODROMIINAE Schiner, 1862

Chelipodini Hendel, 1936

CHELIPODA Macquart, 1823

Chelipoda albisetata (Zetterstedt, 1838)

- Chelipoda inexpectata* Tuomikoski, 1966
Chelipoda vocatoria (Fallén, 1816)
PHYLLODROMIA Zetterstedt, 1837
Phyllostromia melanocephala (Fabricius, 1794)
Hemerodromiini Schiner, 1862
CHELIFERA Macquart, 1823
Chelifera concinnicauda Collin, 1927
 = *lapponica* Frey, 1950
 = *stigmatica* misid.
Chelifera flavella (Zetterstedt, 1838)
Chelifera frigeli (Zetterstedt, 1838)
Chelifera precabunda Collin, 1961
Chelifera precatória (Fallén, 1816)
Chelifera subangusta Collin, 1961
Chelifera trapezina (Zetterstedt, 1838)
HEMERODROMIA Meigen, 1822
Hemerodromia adulatoria Collin, 1927
Hemerodromia oratoria (Fallén, 1816)
Hemerodromia raptoria Meigen, 1830
EMPIDINAE Latreille, 1809
Empidini Latreille, 1809
EMPIS Linnaeus, 1758
sg. Anacrostichus Bezzi, 1909
Empis lucida Zetterstedt, 1838
sg. Coptophlebia Bezzi, 1909
Empis hyalipennis Fallén, 1816
sg. Empis Linnaeus, 1758
Empis acinerea Chvala, 1985
 = *cinerea* Zetterstedt, 1855 preocc.
Empis bicuspidata Collin, 1927
Empis caudatula Loew, 1867
Empis chioptera Meigen, 1804
Empis laminata Collin, 1927
Empis nigripes Fabricius, 1794
 = *pennaria* Fallén, 1816
 = *vernalis* Meigen, 1822
Empis pennipes Linnaeus, 1758
Empis prodromus Loew, 1867
Empis staegeri Collin, 1963
 = *planetica* misid.
Empis syrovatkai Chvála, 1985
 = *plumipes* Zetterstedt, 1842 preocc.
sg. Euempis Frey, 1953

- Empis picipes* Meigen, 1804
 = *maculipes* Zetterstedt, 1842
Empis tessellata Fabricius, 1794
sg. Kritempis Collin, 1926
Empis livida Linnaeus, 1758
sg. Leptempis Collin, 1926
Empis grisea Fallén, 1816
sg. Platyptera Meigen, 1803
Empis borealis Linnaeus, 1758
sg. Xanthempis Bezzi, 1909
Empis aemula Loew, 1873
Empis digramma Meigen in Gistel, 1835
 = *diagramma* misspelling
Empis laetabilis Collin, 1926
Empis stercorea Linnaeus, 1761
Empis univittata Loew, 1867
RHAMPHOMYIA Meigen, 1822
sg. Aclonempis Collin, 1926
Rhamphomyia galactoptera Strobl, 1893
sg. Amydroneura Collin, 1926
Rhamphomyia gibba (Fallén, 1816)
sg. Holoclera Schiner, 1860
Rhamphomyia bohémica Barták & Kubík, 2012
 = *caliginosa* misid.
 = *trigemina* misid.
Rhamphomyia culicina (Fallén, 1816)
Rhamphomyia nigripennis (Fabricius, 1794)
Rhamphomyia sciarina (Fallén, 1816)
Rhamphomyia umbripennis Meigen, 1822
Rhamphomyia variabilis (Fallén, 1816)
 = *tenuirostris* (Fallén, 1816)
sg. Lundstroemiella Frey, 1922
Rhamphomyia dudai Oldenberg, 1927
Rhamphomyia hybotina Zetterstedt, 1838
sg. Megacyttarus Bigot, 1880
Rhamphomyia anomalina Zetterstedt, 1838
Rhamphomyia anomalipennis Meigen, 1822
 = *anomala* misid.
Rhamphomyia crassirostris (Fallén, 1816)
 = *nigripes* auct. nec (Fabricius, 1794)
Rhamphomyia gufitar Frey, 1922
Rhamphomyia maculipennis Zetterstedt, 1842
 = *tephraea* misid.

- = *poissoni* misid.
Rhamphomyia nodipes (Fallén, 1816)
 = *spissirostris* (Fallén, 1816)
Rhamphomyia paradoxa Wahlberg, 1844
sg. *Pararhamphomyia* Frey, 1922
Rhamphomyia albidiventris Strobl, 1898
 = *woldstedti* Frey, 1913
Rhamphomyia albipennis (Fallén, 1816)
Rhamphomyia albitarsis Collin, 1926
Rhamphomyia albissima Frey, 1913
Rhamphomyia alpina Zetterstedt, 1838
Rhamphomyia amoena Loew, 1840
Rhamphomyia angulifera Frey, 1913
Rhamphomyia breviventris Frey, 1913
Rhamphomyia caesia Meigen, 1822
 = *filata* Zetterstedt, 1842
Rhamphomyia caudata Zetterstedt, 1838
 = *aethiops* Zetterstedt, 1838
Rhamphomyia chibinensis Frey, 1922
Rhamphomyia cribrata Oldenberg, 1927
Rhamphomyia curvula Frey, 1913
Rhamphomyia dentata Oldenberg, 1910
Rhamphomyia fascipennis Zetterstedt, 1838
Rhamphomyia filicaudula Frey, 1949
Rhamphomyia fuscipennis Zetterstedt, 1838
Rhamphomyia fuscula Zetterstedt, 1838
Rhamphomyia geniculata Meigen, 1830
 = *plumipes* auct. nec (Meigen, 1804)
Rhamphomyia griseola (Zetterstedt, 1838)
 = *dispar* Zetterstedt, 1838
 = *aperta* Zetterstedt, 1859
Rhamphomyia helleni Frey, 1922
Rhamphomyia lividiventris Zetterstedt, 1838
Rhamphomyia longestylata Frey, 1916
 = *caudata* auct. nec Zetterstedt, 1838
Rhamphomyia lucidula Zetterstedt, 1842
Rhamphomyia marginata (Fabricius, 1787)
Rhamphomyia modesta Wahlberg, 1844
Rhamphomyia murina Collin, 1926
Rhamphomyia niveipennis Zetterstedt, 1838
Rhamphomyia obscura Zetterstedt, 1838
Rhamphomyia obscuripennis Meigen, 1830
 = *nitidicollis* Frey, 1913

- Rhamphomyia physoprocta* Frey, 1913
Rhamphomyia pilifer Meigen, 1838
 = *dentipes* Zetterstedt, 1842
 = *glaucella* Zetterstedt, 1842
 = *intermedia* Frey, 1922
Rhamphomyia plumifera Zetterstedt, 1838
Rhamphomyia poplitea Wahlberg, 1844
Rhamphomyia praestans Frey, 1913
Rhamphomyia pusilla Zetterstedt, 1838
Rhamphomyia rufipes Zetterstedt, 1838
 = *lapponica* Frey, 1955
Rhamphomyia simplex Zetterstedt, 1849
Rhamphomyia subglaucella Frey, 1922
Rhamphomyia tibiella Zetterstedt, 1842
Rhamphomyia tipularia (Fallén, 1816)
Rhamphomyia unguiculata Frey, 1913
Rhamphomyia sp. aff. *albipennis*
sg. *Rhamphomyia* Meigen, 1822
Rhamphomyia albosegmentata Zetterstedt, 1838
Rhamphomyia cinerascens (Meigen, 1804)
Rhamphomyia coracina Zetterstedt, 1849
Rhamphomyia dorsata Becker, 1915
 = *phanerostigma* Frey, 1918
Rhamphomyia hambergi Frey, 1916
Rhamphomyia ignobilis Zetterstedt, 1859
 = *attenuata* Frey, 1913
Rhamphomyia laevipes (Fallén, 1816)
 = *tephraea* Meigen, 1822
Rhamphomyia latifrons Frey, 1913
Rhamphomyia morio Zetterstedt, 1838
Rhamphomyia nitidula Zetterstedt, 1842
Rhamphomyia palmeni Frey, 1913
Rhamphomyia plumipes (Meigen, 1804)
 = *vespertilio* Zetterstedt, 1842
Rhamphomyia reflexa Zetterstedt, 1838
Rhamphomyia spinipes (Fallén, 1816)
Rhamphomyia stigmosa Macquart, 1827
 = *conformis* auct. nec Kowarz, 1867
Rhamphomyia sulcata (Meigen, 1804)
 = *tibialis* auct. nec Meigen, 1822
Rhamphomyia trilineata Zetterstedt, 1859
 = *sulcatina* Collin, 1926
 = *tibialis* auct. nec Meigen, 1822

- = *propinqua* misid.
Rhamphomyia vesiculosa (Fallén, 1816)
 Hilarini Collin, 1961
HILARA Meigen, 1822
Hilara abdominalis Zetterstedt, 1838
 = *obscuritarsis* Zetterstedt, 1859
Hilara albitarsis von Roser, 1840
Hilara anglodanica Lundbeck, 1913
Hilara barbipes Frey, 1908
Hilara beckeri Strobl, 1892
Hilara biseta Collin, 1927
Hilara bistriata Zetterstedt, 1842
Hilara brevistyla Collin, 1927
Hilara campinosensis Niesiolowski, 1986
Hilara canescens Zetterstedt, 1849
Hilara chorica (Fallén, 1816)
Hilara clavipes (Harris, 1776)
 = *spinimana* Zetterstedt, 1838
Hilara clypeata Meigen, 1822
Hilara coracina Oldenberg, 1916
 = *quadrifaria* Strobl, 1892
Hilara cornicula Loew, 1873
Hilara discoidalis Lundbeck, 1910
Hilara diversipes Strobl, 1892
 = *germanica* Engel, 1941
Hilara eviana Straka, 1976
Hilara femorella Zetterstedt, 1842
Hilara gallica (Meigen, 1804)
Hilara griseola Zetterstedt, 1838
Hilara hirta Strobl, 1892
 = *hirtella* misid.
Hilara hybrida Collin, 1961
Hilara hyposeta Straka, 1976
Hilara implicata Collin, 1927
Hilara intermedia (Fallén, 1816)
 = *pubipes* Loew, 1873
Hilara interstincta (Fallén, 1816)
Hilara monedula Collin, 1927
 = *longifurca* auct. nec Strobl, 1892
Hilara lapponica Chvála, 2002
Hilara litorea (Fallén, 1816)
Hilara longivittata Zetterstedt, 1842
Hilara lurida (Fallén, 1816)

- Hilara nigritarsis* Zetterstedt, 1838
 = *infans* Zetterstedt, 1842
Hilara nitidula Zetterstedt, 1838
Hilara pilipes Zetterstedt, 1838
Hilara pseudochorica Strobl, 1892
Hilara pulchripes Frey, 1913
Hilara quadrifasciata Chvála, 2002
 = *quadrivittata* auct. nec Meigen, 1822
Hilara sturmii Meigen, 1822
 = *cingulata* misid.
Hilara submaura Collin, 1927
Hilara tanythrix Frey, 1913
Hilara tenuinervis Zetterstedt, 1838
Hilara woodiella Chvála, 1999
 CLINOCERINAE Collin, 1928
CLINOCERA Meigen, 1803
Clinocera appendiculata (Zetterstedt, 1838)
 = *simplicinervis* Frey, 1913
Clinocera aucta (Zetterstedt, 1849)
Clinocera nivalis (Zetterstedt, 1838)
Clinocera stagnalis (Haliday, 1833)
Clinocera wesmaeli (Macquart, 1835)
DOLICHOCEPHALA Macquart, 1823
Dolichocephala guttata (Haliday, 1833)
Dolichocephala irrorata (Fallén, 1815)
Dolichocephala thomasi Wagner, 1983
 = *ocellata* misid.
WIEDEMANNIA Zetterstedt, 1838
sg. Eucelidia Mik, 1881
Wiedemannia zetterstedti (Fallén, 1826)
sg. Philolutra Mik, 1881
Wiedemannia bohemani (Zetterstedt, 1838)
Wiedemannia simplex (Loew, 1862)
 = *fallaciosa* auct. nec Loew, 1873
sg. Wiedemannia Zetterstedt, 1838
Wiedemannia bistigma (Curtis, 1834)
 Uncertain subfamily position within Empididae (*incertae sedis*)
HORMOPEZA Zetterstedt, 1838
Hormopeza copulifera Melander, 1927
Hormopeza obliterateda Zetterstedt, 1838
RAGAS Walker, 1837
Ragas unica Walker, 1837

- ATELESTIDAE** Hennig, 1970
 ATELESTINAE Hennig, 1970
ATELESTUS Walker, 1837
Atelestus pulicarius (Fallén, 1816)
MEGHYPERUS Loew, 1850
Meghyperus sudeticus Loew, 1850
- HYBOTIDAE** Meigen, 1820
 TRICHININAE Chvála, 1983
TRICHINA Meigen, 1830
Trichina bilobata Collin, 1926
Trichina clavipes Meigen, 1830
Trichina elongata Haliday, 1833
Trichina opaca Loew, 1864
 = *picipes* Tuomikoski, 1935
Trichina pallipes (Zetterstedt, 1838)
TRICHINOMYIA Tuomikoski, 1959
Trichinomyia flavipes (Meigen, 1830)
Trichinomyia fuscipes (Zetterstedt, 1838)
 OCYDROMIINAE Schiner, 1862
 Ocydromiini Schiner, 1862
CHVALAEA Papp & Földvári, 2001
Chvalaea sopiana Papp & Földvári, 2001
LEPTODROMIELLA Tuomikoski, 1936
*Leptodromiella crassiset*a Tuomikoski, 1936
LEPTOPEZA Macquart, 1834
Leptopeza borealis Zetterstedt, 1842
Leptopeza flavipes (Meigen, 1820)
OCYDROMIA Meigen, 1820
Ocydromia glabricula (Fallén, 1816)
Ocydromia melanopleura Loew, 1840
 OEDALEINAE Chvála, 1983
ALLANTHALIA Melander, 1927
Allanthalia pallida (Zetterstedt, 1838)
ANTHALIA Zetterstedt, 1838
Anthalia schoenherri Zetterstedt, 1838
EUTHYNEURA Macquart, 1836
Euthyneura albipennis (Zetterstedt, 1842)
Euthyneura gyllenhali (Zetterstedt, 1838)
Euthyneura myrtilli Macquart, 1836
 = *myricae* Haliday, 1851 misid.
OEDALEA Meigen, 1820

- Oedalea freyi* Chvála, 1983
Oedalea holmgreni Zetterstedt, 1852
Oedalea hybotina (Fallén, 1816)
Oedalea stigmatella Zetterstedt, 1842
Oedalea tibialis Macquart, 1827
Oedalea zetterstedti Collin, 1926
 TACHYDROMIINAE Meigen, 1822
 Symballophthalmini Sinclair & Cumming, 2006
SYMBALLOPHTHALMUS Mecker, 1889
Symballophthalmus dissimilis (Fallén, 1815)
Symballophthalmus fuscitarsis (Zetterstedt, 1859)
 = *scapularis* Collin, 1961
 Tachydromiini Meigen, 1822
PLATYPALPUS Macquart, 1827
Platypalpus agilis (Meigen, 1822)
Platypalpus albicornis (Zetterstedt, 1842)
Platypalpus albisetia (Panzer, 1806)
Platypalpus albocapillatus (Fallén, 1815)
Platypalpus alpinus Chvála, 1971
Platypalpus alter (Collin, 1961)
Platypalpus annulatus (Fallén, 1815)
 = *fulvipes* (Meigen, 1822)
Platypalpus annulipes (Meigen, 1822)
Platypalpus articulatooides (Frey, 1918)
 ? *Platypalpus articulatus* Macquart, 1827
Platypalpus ater (Wahlberg, 1844)
 = *atra* misspelling
Platypalpus boreoalpinus Frey, 1943
Platypalpus brachystylus (Bezzi, 1892)
 = *brunneitibia* (Strobl, 1899)
Platypalpus brevicornis (Zetterstedt, 1842)
Platypalpus calceatus (Meigen, 1822)
Platypalpus candicans (Fallén, 1815)
Platypalpus ciliaris (Fallén, 1816)
Platypalpus confiformis Chvála, 1971
Platypalpus confinis (Zetterstedt, 1842)
Platypalpus cothurnatus Macquart, 1827
Platypalpus cryptospina (Frey, 1909)
 = *tantulus* (Collin, 1961)
Platypalpus cursitans (Fabricius, 1775)
 = *bicolor* (Meigen, 1804)
Platypalpus ecalceatus (Zetterstedt, 1838)
Platypalpus excavatus Yang & Yao, 2007

- = *excisus* (Becker, 1907) preocc.
Platypalpus exilis (Meigen, 1822)
Platypalpus fenestella Kovalev, 1971
Platypalpus flavicornis (Meigen, 1822)
Platypalpus fuscicornis (Zetterstedt, 1842)
Platypalpus hackmani Chvála, 1972
Platypalpus infectus (Collin, 1926)
Platypalpus interstinctus (Collin, 1926)
Platypalpus laestadianorum (Frey, 1913)
Platypalpus lapponicus Frey, 1943
Platypalpus longicornis (Meigen, 1822)
Platypalpus longiseta (Zetterstedt, 1842)
 = *extricatus* (Collin, 1926)
Platypalpus luteicornis (Meigen, 1838)
 = *difficilis* (Frey, 1907)
 = *interjectus* (Lundbeck, 1910)
Platypalpus luteus (Meigen, 1804)
Platypalpus maculus (Zetterstedt, 1842)
Platypalpus maculimanus (Zetterstedt, 1842)
 = *articulatus* auct. nec Macquart, 1827
Platypalpus maculipes (Meigen, 1822)
Platypalpus major (Zetterstedt, 1842)
Platypalpus melancholicus (Collin, 1961)
Platypalpus minutus (Meigen, 1804)
Platypalpus nigricoxa (Mik, 1884)
Platypalpus nigratarsis (Fallén, 1816)
Platypalpus nigrosetosus (Strobl, 1893)
Platypalpus nonstriatus Strobl, 1901
Platypalpus notatus (Meigen, 1822)
Platypalpus pallidicornis (Collin, 1926)
Platypalpus pallidicoxa (Frey, 1913)
Platypalpus pallidiventris (Meigen, 1822)
 = *flavipes* (Fabricius, 1794)
Platypalpus pallipes (Fallén, 1815)
Platypalpus pectoralis (Fallén, 1815)
Platypalpus pseudofulvipes (Frey, 1909)
 = *coarctatus* (Collin, 1926)
Platypalpus pseudorapidus Kovalev, 1971
Platypalpus pulicarius (Meigen, 1830)
Platypalpus rapidus (Meigen, 1822)
Platypalpus sahlbergi (Frey, 1909)
Platypalpus scandinavicus Chvála, 1972
Platypalpus sordidus (Zetterstedt, 1838)

- Platypalpus stabilis* (Collin, 1961)
Platypalpus stackelbergi Kovalev, 1971
Platypalpus stigmatellus (Zetterstedt, 1842)
Platypalpus strigifrons (Zetterstedt, 1849)
Platypalpus subbrevis (Frey, 1913)
Platypalpus subtilis (Collin, 1926)
Platypalpus sylvicola (Collin, 1926)
Platypalpus tuomikoskii Chvála, 1972
Platypalpus unguiculatus (Zetterstedt, 1838)
Platypalpus verralli (Collin, 1926)
Platypalpus vividus (Meigen, 1838)
 = *albisetoides* Chvála, 1973
Platypalpus zetterstedti Chvála, 1971
TACHYDROMIA Meigen, 1803
Tachydromia aemula (Loew, 1864)
Tachydromia arrogans (Linnaeus, 1761)
Tachydromia connexa Meigen, 1822
Tachydromia incompleta (Becker, 1900)
Tachydromia lundstroemi (Frey, 1913)
Tachydromia morio (Zetterstedt, 1838)
Tachydromia punctifera (Becker, 1900)
Tachydromia sabulosa Meigen, 1830
Tachydromia terricola Zetterstedt, 1819
Tachydromia umbrarum Haliday, 1833
TACHYPEZA Meigen, 1830
Tachypeza fennica Tuomikoski, 1932
Tachypeza fuscipennis (Fallén, 1815)
Tachypeza heeri (Zetterstedt, 1838)
Tachypeza nubila (Meigen, 1804)
Tachypeza truncorum (Fallén, 1815)
Tachypeza winthemi (Zetterstedt, 1838)
Drapetini Collin, 1961
CHERSODROMIA Haliday, 1851
Chersodromia arenaria (Haliday, 1833)
Chersodromia cursitans (Zetterstedt, 1819)
CROSSOPALPUS Bigot, 1857
Crossopalpus curvinervis (Zetterstedt, 1842)
Crossopalpus curvipes (Meigen, 1822)
Crossopalpus humilis (Frey, 1913)
Crossopalpus nigritellus (Zetterstedt, 1842)
Crossopalpus setiger (Loew, 1859)
DRAPETIS Meigen, 1822
Drapetis arcuata Loew, 1859

- Drapetis assimilis* (Fallén, 1815)
Drapetis exilis Meigen, 1822
Drapetis infitialis Collin, 1961
Drapetis ingrlica Kovalev, 1972
Drapetis parilis Collin, 1926
Drapetis pusilla Loew, 1859
Drapetis simulans Collin, 1961
Elaphropeza Macquart, 1827
Elaphropeza ephippiata (Fallén, 1815)
STILPON Loew, 1859
Stilpon graminum (Fallén, 1815)
 HYBOTINAE Meigen, 1820
 Bicellariini Sinclair & Cumming, 2006
BICELLARIA Macquart, 1823
 = **Cyrtoma** Meigen, 1824
Bicellaria austriaca Tuomikoski, 1955
Bicellaria intermedia Lundbeck, 1910
Bicellaria nigra (Meigen, 1824)
Bicellaria pilosa Lundbeck, 1910
Bicellaria simplicipes (Zetterstedt, 1842)
Bicellaria spuria (Fallén, 1816)
Bicellaria subpilosa Collin, 1926
Bicellaria sulcata (Zetterstedt, 1842)
Bicellaria uvens Melander, 1928
 = *bisetosa* Tuomikoski, 1936
 Hybotini Meigen, 1820
HYBOS Meigen, 1803
Hybos culiciformis (Fabricius, 1775)
Hybos femoratus (Müller, 1776)
 = *femoralis* misspelling
Hybos grossipes (Linnaeus, 1767)
SYNDYAS Loew, 1857
Syndyas nigripes (Zetterstedt, 1842)
- BRACHYSTOMATIDAE** Melander, 1908
 TRICHOPEZINAE Vaillant, 1981
GLOMA Meigen, 1822
Gloma fuscipennis Meigen, 1822
HELEODROMIA Haliday, 1833
 sg. **Heleodromia** Haliday, 1833
Heleodromia immaculata Haliday, 1833
TRICHOPEZA Rondani, 1856
Trichopeza albocincta (Boheman, 1863)

= *albicincta* Frey, 1913

Trichopeza longicornis (Meigen, 1822)

DOLICHOPODIDAE Latreille, 1809

MICROPHORINAE Collin, 1960

MICROPHOR Macquart, 1827

= *Microphorus* misspelling

Microphor anomalus (Meigen, 1824)

Microphor crassipes Macquart, 1827

Microphor holosericeus (Meigen, 1804)

= *velutinus* Macquart, 1827

PARATHALASSIINAE Chvála, 1981

MICROPHORELLA Becker, 1909

Microphorella praecox (Loew, 1864)

DOLICHOPODINAE Latreille, 1809

DOLICHOPUS Latreille, 1796

= *Hygroceleuthus* Loew, 1857

sg. Dolichopus Latreille, 1796

Dolichopus acuticornis Wiedemann, 1817

Dolichopus annulitarsis Ringdahl, 1920

Dolichopus apicalis Zetterstedt, 1849

Dolichopus argyrotarsis Wahlberg, 1850

Dolichopus armillatus Wahlberg, 1850

= *stenhammari* var. b Zetterstedt, 1843

Dolichopus atripes Meigen, 1824

Dolichopus austriacus Parent, 1927

Dolichopus bonsdorffi Frey, 1915

Dolichopus brevipennis Meigen, 1824

Dolichopus caligatus Wahlberg, 1850

= *flavipes* misid.

= *albifrons* misid.

Dolichopus calinotus Loew, 1871

Dolichopus campestris Meigen, 1824

Dolichopus cilifemoratus Macquart, 1827

= *pseudocilifemoratus* Stackelberg, 1930

Dolichopus cinctipes Wahlberg, 1850

Dolichopus claviger Stannius, 1831

Dolichopus clavipes Haliday, 1832

Dolichopus costalis Frey, 1915

Dolichopus discifer Stannius, 1831

?= *nigricornis* Meigen, 1824

Dolichopus discimanus Wahlberg, 1851

Dolichopus fraterculus Zetterstedt, 1843

- Dolichopus griseipennis* Stannius, 1831
Dolichopus gubernator Mik, 1878
Dolichopus hilaris Loew, 1862
Dolichopus lancearius Hedström, 1966
Dolichopus latilimbatus Macquart, 1827
Dolichopus latipennis Fallén, 1823
Dolichopus lepidus Staeger, 1842
 = *cruralis* Wahlberg, 1850
 = *lapponicus* Becker, 1917
Dolichopus linearis Meigen, 1824
Dolichopus lineatocornis Zetterstedt, 1843
Dolichopus longicornis Stannius, 1831
Dolichopus longitarsis Stannius, 1831
Dolichopus maculipennis Zetterstedt, 1843
Dolichopus mannerheimi Zetterstedt, 1838
Dolichopus migrans Zetterstedt, 1843
Dolichopus nigripes Fallén, 1823
Dolichopus nitidus Fallén, 1823
Dolichopus notatus Staeger, 1842
 = *notabilis* Zetterstedt, 1843
Dolichopus nubilus Meigen, 1824
Dolichopus pennatus Meigen, 1824
Dolichopus picipes Meigen, 1824
 = *consimilis* Wahlberg, 1850
Dolichopus planitarsis Fallén, 1823
Dolichopus plumipes (Scopoli, 1763)
 = *parvicaudatus* Zetterstedt, 1843
 = *pectinitarsis* Stenhammar, 1851
Dolichopus popularis Wiedemann, 1817
Dolichopus pseudomigrans Ringdahl, 1928
Dolichopus punctum Meigen, 1824
Dolichopus remipes Wahlberg, 1839
Dolichopus rupestris Haliday, 1833
Dolichopus ruthei Loew, 1847
Dolichopus sabinus Haliday, 1838
Dolichopus setiger Negrobov, 1973
Dolichopus signatus Meigen, 1824
Dolichopus signifer Haliday, 1832
Dolichopus simplex Meigen, 1824
Dolichopus stenhammari Zetterstedt, 1843
 = *annulipes* Zetterstedt, 1838 invalidated
Dolichopus subpennatus d'Assis-Fonseca, 1976
Dolichopus trivialis Haliday, 1832

- = *cilifemoratus* auct. nec Macquart, 1827
Dolichopus unguulatus (Linnaeus, 1758)
Dolichopus urbanus Meigen, 1824
Dolichopus vitripennis Meigen, 1824
Dolichopus wahlbergi Zetterstedt, 1843
Dolichopus zetterstedti Stenhammar, 1852
sg. *Macrodolichopus* Stackelberg, 1933
Dolichopus diadema Haliday, 1832
ETHIROMYIA Brooks, 2005
Ethiromyia chalybeus (Wiedemann, 1817)
GYMNOPTERNUS Loew, 1857
Gymnopternus aerosus (Fallén, 1823)
Gymnopternus angustifrons (Staeger, 1842)
Gymnopternus brevicornis (Staeger, 1842)
Gymnopternus celer (Meigen, 1824)
Gymnopternus metallicus (Stannius, 1831)
HERCOSTOMUS Loew, 1857
Hercostomus germanus (Wiedemann, 1817)
Hercostomus nigrilamellatus (Macquart, 1827)
Hercostomus nigriplantis (Stannius, 1831)
Hercostomus sahlbergi (Zetterstedt, 1838)
SYBISTROMA Meigen, 1824
Sybistroma discipes (Germar, 1817)
Sybistroma obscurellum (Fallén, 1823)
TACHYTRECHUS Haliday, 1851
= ***Ammobates*** Stannius, 18312 preocc.
Tachytrechus ammobates (Haliday, 1851)
= *plumipes* (Fallén, 1823) preocc.
Tachytrechus hamatus Loew, 1871
Tachytrechus notatus (Stannius, 1831)
SCIAPODINAE Becker, 1917
SCIAPUS Zeller, 1842
= ***Sciopus*** misspelling
Sciapus albifrons (Meigen, 1830)
Sciapus basilicus Meuffels & Grootaert, 1990
Sciapus lobipes (Meigen, 1824)
Sciapus longulus (Fallén, 1823)
Sciapus maritimus Becker, 1918
= *flavomaculatus* Ringdahl, 1949
Sciapus platypterus (Fabricius, 1805)
Sciapus wiedemanni (Fallén, 1823)
Sciapus zonatululus (Zetterstedt, 1843)
= *contristans* misid.

SYMPYCNINAE Aldrich, 1905

CAMPSICNEMUS Haliday, 1851= *Ectomus* Mik, 1878*Campsicnemus alpinus* (Haliday, 1833)*Campsicnemus armatus* (Zetterstedt, 1849)*Campsicnemus articulatus* (Zetterstedt, 1843)= *pilosellus* (Zetterstedt, 1843)= *dasyncnemus* Loew, 1857*Campsicnemus compeditus* Loew, 1857*Campsicnemus curvipes* (Fallén, 1823)*Campsicnemus femoratus* Ringdahl, 1949*Campsicnemus loripes* (Haliday, 1832)*Campsicnemus lumbatus* Loew, 1857*Campsicnemus marginatus* Loew, 1857*Campsicnemus paradoxus* (Wahlberg, 1844)*Campsicnemus picticornis* (Zetterstedt, 1843)*Campsicnemus pumilio* (Zetterstedt, 1843)= *pectinulatus* Loew, 1864*Campsicnemus pusillus* (Meigen, 1824)*Campsicnemus scambus* (Fallén, 1823)**LAMPROCHROMUS** Mik, 1878*Lamprochromus strobli* Parent, 1925**SYMPYCNUS** Loew, 1857*Sympycnus aeneicoxa* (Meigen, 1824)*Sympycnus pulicarius* (Fallén, 1823)?= *annulipes* (Meigen, 1824)?= *desoutteri* Parent, 1925**SYNTORMON** Loew, 1857= *Bathycranium* Strobl, 1892*Syntormon bicolorellus* (Zetterstedt, 1843)*Syntormon filiger* Verrall, 1912= *rufipes* misid.= *simplicipes* Frey, 1915*Syntormon freymuthae* Loew, 1873= *S. denticulatus* misid.*Syntormon metathesis* (Loew, 1850)*Syntormon pallipes* (Fabricius, 1794)*Syntormon pumilus* (Meigen, 1824)*Syntormon tarsatus* (Fallén, 1823)= *aulicus* misid.**TELMATURGUS** Mik, 1874*Telmaturgus tumidulus* (Raddatz, 1873)**TEUCHOPHORUS** Loew, 1857

= **Teucophorus** misspelling

Teuchophorus monacanthus Loew, 1859

Teuchophorus nigricosta (von Roser, 1840)

= *pectinifer* Kowarz, 1868

= *signatus* Zetterstedt, 1849

Teuchophorus spinigerellus (Zetterstedt, 1843)

DIAPHORINAE Schiner, 1864

ARGYRA Macquart, 1834

= **Leucostola** Loew, 1857

Argyra argentina (Meigen, 1824)

Argyra argyria (Meigen, 1824)

Argyra auricollis (Meigen, 1824)

Argyra diaphana (Fabricius, 1775)

Argyra elongata (Zetterstedt, 1843)

Argyra ilonae Geoffries, 1989

= *confinis* (Zetterstedt, 1849) preocc.

Argyra leucocephala (Meigen, 1824)

Argyra magnicornis (Zetterstedt, 1838)

Argyra setulipes Becker, 1918

Argyra setimana Loew, 1859

= *subarctica* misid.

Argyra spoliata Kowarz, 1879

Argyra vestita (Wiedemann, 1817)

ASYNDETUS Loew, 1869

Asyndetus latifrons (Loew, 1857)

CHRYSOTUS Meigen, 1824

Chrysotus angulicornis Kowarz, 1874

Chrysotus cilipes Meigen, 1824

Chrysotus cupreus (Macquart, 1827)

Chrysotus femoratus Zetterstedt, 1843

Chrysotus gramineus (Fallén, 1823)

= *microcerus* Kowarz, 1874

= *varians* Kowarz, 1874

Chrysotus laesus (Wiedemann, 1817)

= *amplicornis* Zetterstedt, 1849

Chrysotus neglectus (Wiedemann, 1817)

Chrysotus obscuripes Zetterstedt, 1838

= *kowarzi* Lundbeck, 1912

Chrysotus pulchellus Kowarz, 1874

Chrysotus suavis Loew, 1857

DIAPHORUS Meigen, 1824

Diaphorus hoffmannseggii Meigen, 1830

Diaphorus nigricans Meigen, 1824

Diaphorus oculatus (Fallén, 1823)

MELANOSTOLUS Kowarz, 1884

Melanostolus melancholicus (Loew, 1869)

MEDETERINAE Lioy, 1864

DOLICHOPHORUS Lichtward, 1902

Dolichophorus kerteszi Lichtward, 1902

MEDETERA Fischer von Waldheim, 1819

Medetera abstrusa Thuneberg, 1955

Medetera acanthura Negrobov & Thuneberg, 1970

Medetera adjaniae Gosseries, 1989

= *brevisetata* Parent, 1927 preocc.

Medetera ambigua (Zetterstedt, 1843)

Medetera apicalis (Zetterstedt, 1843)

Medetera belgica Parent, 1936 *sensu* Negrobov & Stackelberg, 1972

Medetera betulae Ringdahl, 1949

Medetera borealis Thuneberg, 1955

Medetera cuspidata Collin, 1941

Medetera dichrocera Kowarz, 1877

Medetera excellens Frey, 1909

Medetera fasciata Frey, 1915

Medetera freyi Thuneberg, 1955

Medetera fumida Negrobov, 1967

Medetera impigra Collin, 1941

Medetera incrassata Frey, 1909

Medetera infumata Loew, 1857

Medetera inspissata Collin, 1952

Medetera jacula (Fallén, 1823)

Medetera jugalis Collin, 1941

Medetera melancholica Lundbeck, 1912

Medetera muralis Meigen, 1824

Medetera nitida (Macquart, 1834)

= *stackelbergi* Parent, 1927

Medetera obscura (Zetterstedt, 1838)

Medetera pallipes (Zetterstedt, 1843)

Medetera parenti Stackelberg, 1925

= *collini* Thuneberg, 1955

Medetera pinicola Kowarz, 1877

= *nuortevai* Thuneberg, 1955

Medetera plumbella Meigen, 1824

Medetera prjachinae Negrobov & Stackelberg, 1974

Medetera protuberans Negrobov, 1967

Medetera pseudoapicalis Thuneberg, 1955

Medetera seguyi Parent, 1926

Medetera senicula Kowarz, 1877

Medetera setiventris Thuneberg, 1955

Medetera signaticornis Loew, 1857

Medetera striata Parent, 1927

Medetera tristis (Zetterstedt, 1838)

Medetera vagans Becker, 1917

= *fennica* Thuneberg, 1955

Medetera veles Loew, 1861

= *bilineata* Frey, 1915

Medetera zinoujevi Negrobov, 1967

SYSTEMENUS Loew, 1857

Systemus bipartitus (Loew, 1850)

Systemus pallipes (von Roser, 1840)

= *adpropinquus* (Loew, 1857)

Systemus scholtzi (Loew, 1850)

THRYPTICUS Gerstäcker, 1864

Thrypticus atomus Frey, 1915

Thrypticus bellus Loew, 1869

Thrypticus cuneatus (Becker, 1917)

Thrypticus divisus Strobl, 1880

= *fennicus* Becker, 1917

Thrypticus intercedens Negrobov, 1967

Thrypticus laetus Verrall, 1912

Thrypticus nigricauda Wood, 1913

Thrypticus pollinosus Verrall, 1912

Thrypticus pruinosus Parent, 1932

Thrypticus smaragdinus Gerstäcker, 1864

Thrypticus tarsalis Parent, 1932

Thrypticus sp. A

HYDROPHORINAE Liroy, 1864

HYDROPHORUS Fallén, 1823

Hydrophorus albiceps Frey, 1915

Hydrophorus alpinus Wahlberg, 1844

Hydrophorus altivagus Aldrich, 1911

= *wahlgreni* Frey, 1915

Hydrophorus bipunctatus (Lehmann, 1822)

Hydrophorus borealis Loew, 1857

Hydrophorus brunnicosus Loew, 1857

Hydrophorus callosoma Frey, 1915

= *albosignatus* Ringdahl, 1919

Hydrophorus freyi Storå, 1954

Hydrophorus geminus Frey, 1915

Hydrophorus litoreus Fallén, 1823

- Hydrophorus nebulosus* Fallén, 1823
Hydrophorus norvegicus Ringdahl, 1928
Hydrophorus pectinatus Gerstäcker, 1864
 = *forcipatus* Frey, 1915
Hydrophorus pilipes Frey, 1915
Hydrophorus praecox (Lehmann, 1822)
Hydrophorus rufibarbis Gerstäcker, 1864
 = *micans* Frey, 1915
Hydrophorus signiferus Coquillett, 1899
 = *magnicornis* Frey, 1915
Hydrophorus viridis (Meigen, 1824)
LIANCALUS Loew, 1857
Liancalus virens (Scopoli, 1763)
PEODES Loew, 1857
Peodes petsamoensis Frey, 1930
SCELLUS Loew, 1857
Scellus spinimanus (Zetterstedt, 1843)
THINOPHILUS Wahlberg, 1844
sg. *Thinophilus* Wahlberg, 1844
Thinophilus flavipalpis (Zetterstedt, 1843)
Thinophilus ruficornis (Haliday, 1838)
 NEURIGONINAE Aldrich, 1905
NEURIGONA Rondani, 1856
Neurigona abdominalis (Fallén, 1823)
Neurigona pallida (Fallén, 1823)
Neurigona quadrifasciata (Fabricius, 1781)
Neurigona suturalis (Fallén, 1823)
Neurigona sp. A
 RHAPHIINAE Bigot, 1852
RHAPHIUM Meigen, 1803
 = *Xiphandrium* Loew, 1857
 = *Porphyrops* auctt.
Rhaphium albifrons (Zetterstedt, 1843)
Rhaphium appendiculatum (Zetterstedt, 1849)
 = *macrocerum* auct. nec Meigen, 1824
Rhaphium basale Loew, 1850
Rhaphium caliginosum Meigen, 1824
 = *zetterstedti* (Parent, 1925)
Rhaphium commune (Meigen, 1824)
 = *spinicoxa* Loew, 1850
Rhaphium confine Zetterstedt, 1843
Rhaphium crassipes (Meigen, 1824)
Rhaphium discolor Zetterstedt, 1838

- = *consobrinum* Zetterstedt, 1843
- = *riparium* auct. nec (Meigen, 1824: 53)
- Rhaphium elegantulum* (Meigen, 1824)
- Rhaphium fasciatum* Meigen, 1824
- Rhaphium fascipes* (Meigen, 1824)
- Rhaphium fissum* Loew, 1850
- Rhaphium glaciale* (Ringdahl, 1920)
- Rhaphium holmgreni* (Mik, 1878)
 - = *luteipenne* (Frey, 1915)
- Rhaphium lanceolatum* Loew, 1850
 - = *caliginosum* auct. nec Meigen, 1824
- Rhaphium laticorne* (Fallén, 1823)
 - = *nemorum* Meigen, 1830
- Rhaphium latimanum* Kahanpää, 2007
- Rhaphium longicorne* (Fallén, 1823)
- Rhaphium micans* (Meigen, 1824)
- Rhaphium monotrichum* Loew, 1850
 - = *auctum* misid.
- Rhaphium nasutum* (Fallén, 1823)
- Rhaphium nigribarbatum* (Becker, 1900)
- Rhaphium patulum* (Raddatz, 1873)
 - = *antennatum* misid.
- Rhaphium penicillatum* Loew, 1850
- Rhaphium riparium* (Meigen, 1824)
 - = *praerosum* Loew, 1850
- Rhaphium rivale* (Loew, 1869)
- Rhaphium tridactylum* (Frey, 1915)
- Rhaphium umbripenne* (Frey, 1915)
- ACHALCINAE Grootaert & Meuffels, 1997
- ACHALCUS** Haliday, 1857
- Achalcus cinereus* (Haliday, 1851)
- Achalcus flavicollis* (Meigen, 1824)
- Achalcus nigropunctatus* Pollét & Brunhues, 1996
- Achalcus vaillanti* Brunhues, 1987
- PELOROPEODINAE Robinson, 1970
- CHRYSOTIMUS** Loew, 1857
- Chrysotimus molliculus* (Fallén, 1823)
- MICROMORPHUS** Mik, 1878
- Micromorphus claripennis* (Strobl, 1899)
- XANTHOCHLORINAE Aldrich, 1905
- XANTHOCHLORUS** Loew, 1857
- Xanthochlorus ornatus* (Haliday, 1832)
- Xanthochlorus tenellus* (Wiedemann, 1817)

Excluded species

- Chelifera astigma* Collin, 1927 misidentified
Chrysotus arcticus Frey, 1915 not found within present borders
Chrysotus longipalpus Aldrich, 1896 imported
 = *pallidipalpus* van Duzee, 1933
Chrysotus ringdahli Parent, 1929 not found within present borders
Clinocera nigra Meigen, 1804 misidentified
Crossopalpus abditus Kovalev, 1972 not found within present borders
Dolichopus angustipennis Kertesz, 1901 not found within present borders
 = *adustus* Frey, 1915
Dolichopus grandicornis Wahlberg, 1850 not found within present borders
Dolichopus mediicornis Verrall, 1875 not found within present borders
Dolichopus plumitarsis Fallén, 1823 misidentified
Dolichopus propinquus Zetterstedt, 1852 misidentified
Drapetis incompleta Collin, 1926 misidentified
Empis punctata Meigen, 1804 not found within present borders
Gymnopternus assimilis (Stæger, 1842) misidentified
Hilara flavipes Meigen, 1822 misidentified
Hilara maura (Fabricius, 1776) not found within present borders
Hilara scrobiculata Loew, 1873 misidentified
Hilara tetragramma Loew, 1873 misidentified
Hydrophorus balticus (Meigen, 1824) not found within present borders
Hydrophorus ponojensis Frey, 1915 not found within present borders
Iteaphila furcata (Zetterstedt, 1842) not found within present borders
Medetera annulitarsus von Roser, 1840 misidentified
Medetera glauca Loew, 1869 misidentified
Medetera feminina Negrobov, 1967 misidentified
Medetera truncorum Meigen, 1824 imported
Oedalea flavipes Zetterstedt, 1842 misidentified
Parathalassius krogerusi Frey, 1927 nomen nudum
Rhamphomyia tibialis Meigen, 1822 misidentified
Rhaphium antennatum (Carlier, 1835) misidentified
Rhaphium obscuripes Zetterstedt, 1849 misidentified
Rhaphium suave (Loew, 1859) not found within present borders
Tachytrechus insignis (Stannius, 1831) misidentified
Trichoclinocera lapponica (Ringdahl, 1933) not found within present borders

Notes

Dolichopus caligatus Wahlberg, 1850 was synonymized with *D. flavipes* Stannius, 1831 by Becker (1918) but Collin (1940) reinstated *D. caligatus* as a valid species.

True *D. flavipes* (if it is a valid species) has not been found in Finland but some specimens have been recorded from Northwestern European Russia.

***Dolichopus stenhammari* Zetterstedt, 1843.** Zetterstedt (1838) first described this species as *Dolichopus annulipes*. Later he proposed *D. stenhammari* Zett., 1843 as an (unnecessary) replacement name for the taxon: *Porphyrops annulipes* Meigen, 1824 was recognized in *Dolichopus* at the time, but only as a junior synonym of what is now *Sympycnus pulicarius* (Fallén, 1823) (Zetterstedt 1843). Nonetheless this act means, according to article 59.3 of The Code (ICZN 1999), that *D. annulipes* Zett., 1838 is permanently invalid.

***Hilara pseudochorica* Strobl, 1892.** Erroneously deleted from the Finnish checklist by Kahanpää and Winqvist (2005).

***Iteaphila furcata* (Zetterstedt 1842).** Sinclair and Shamshev (2012) list a specimen from Kuusamo with code label 1546. According to R. Frey's notes this specimen was collected in 1917 from eastern Kuusamo, an area ceded to Russia in 1944.

***Neurigona* sp. A** is probably *N. uralensis* Becker, 1918.

***Platypalpus articulatus* and *P. maculimanus*.** According to Allen (1986) these two names are not synonymous and the species identified as *P. articulatus* Macquart by Chvála (1975, 1989) is in fact *P. maculimanus* (Zett.). Upon re-examination, all Finnish material previously identified as *P. articulatus* belonged to *P. maculimanus* and *P. articulatoides* Frey. It remains unclear whether the real *P. articulatus* occurs in Finland.

***Rhamphomyia* sp. nr. *albipennis*.** An apparently undescribed species near *R. albipennis* (Fallén, 1816) (K. Winqvist & M. Barták, priv. comm.).

***Sympycnus pulicarius* (Fallén, 1823).** Pollet (2004) (Fauna Europaea) treats *S. annulipes* (Meigen, 1824) and *S. desoutteri* Parent, 1925 as valid species and lists *S. pulicarius* (Fallén, 1823) as a synonym of the latter but notes that it might actually be a synonym of *S. annulipes*.

***Thrypticus* sp. A** is probably *T. incanus* Negrobov, 1967 described from the Leningrad Oblast, Russia (Negrobov 1967).

***Trichoclinocera lapponica* (Ringdahl, 1933).** The type locality of this species, "Lappland nära Tjuonajaur", (Ringdahl 1933) is in Sweden, not Finland as stated in Chvála and Wagner (1989).

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Checklist of the families Opetiidae and Platypezidae (Diptera) of Finland

Gunilla Ståhls¹

¹ Finnish Museum of Natural History, Zoology Unit, P.O. Box 17, FI-00014 University of Helsinki, Finland

Corresponding author: Gunilla Ståhls (gunilla.stahls@helsinki.fi)

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Abstract

A checklist of the Opetiidae and Platypezidae (Diptera) recorded from Finland.

Keywords

Checklist, Finland, Diptera, Opetiidae, Platypezidae

Introduction

Opetiidae and Platypezidae are small families of small-sized flies. Platypezidae are principally forest insects, and all known larvae develop in fungi. New host fungi records were recently reported in Reemer et al. (2014), Ståhls et al. (submitted) and Ståhls and Rättel (2013).

The Finnish species were last listed by Hackman (1980) and Chandler (2001). Chandler (2001) included one and 21 species of Opetiidae and Platypezidae, respectively. Ståhls and Kahanpää (2006), Winqvist (2011), Ståhls et al. (2014), Reemer et al. (2014) and Ståhls and Rättel (2013) added altogether 12 species of family Platypezidae. *Bolopus furcatus* was included in Hackman (1980) but not in Chandler (2001), Ståhls et al. (2012) reported the taxon from Finland again. *Agathomyia* (subfamily Calomyiinae) is the largest genus of the Platypezidae. A recent study reinstated two *Agathomyia* species from synonymy (*A. boreella* Zetterstedt and *A. scutellaris* Zetterstedt) and two species were described as new to science (Ståhls et al. submitted). The taxonomic

status of *A. dahlbomi* (Zetterstedt), presently listed as synonym of *A. elegantula* (Zetterstedt), remains unclear. *Callomyia elegans* and *Protoclythia modesta* are only known from previous single records, their occurrence has not been verified with new findings.

Chandler and Shatalkin (1998) and Chandler (2001) provided keys to subfamilies, genera and species of adult Palaearctic Platypezidae, and key to genera of known early stages of Platypezidae. Ståhls et al. (submitted) provided a key to Northern European *Agathomyia* spp.

Number of species (Opetiidae, Platypezidae):

World: 102, 252 species (Pape et al. 2011)

Europe: 1, 46 species

Finland: 1, 38 species

Faunistic knowledge level in Finland: average

Checklist

suborder Brachycera Macquart, 1834

clade Eremoneura Lameere, 1906

clade Cyclorrhapha Brauer, 1863

infraorder Aschiza Becher, 1882

superfamily Phoroidea Curtis, 1833

OPETIIDAE Rondani, 1856

OPETIA Meigen, 1830

Opetia nigra Meigen, 1830

PLATYPEZIDAE Fallén, 1815

CALLOMYIINAE Rondani, 1841

AGATHOMYIA Verrall, 1901

Agathomyia alneti Ståhls & Rättel, in prep.

Agathomyia antennata (Zetterstedt, 1819)

Agathomyia boreella (Zetterstedt, 1838)

Agathomyia cinerea (Zetterstedt, 1852)

Agathomyia elegantula (Fallén, 1815)

= *dahlbomi* (Zetterstedt, 1838)

Agathomyia falleni (Zetterstedt, 1819)

Agathomyia lundbecki Chandler in Shatalkin, 1985

Agathomyia sexmaculata (von Roser, 1840)

Agathomyia scutellaris (Zetterstedt, 1838)

Agathomyia shatalkini Ståhls, in prep.

Agathomyia unicolor Oldenberg, 1928

Agathomyia vernalis Shatalkin, 1981

- Agathomyia viduella* (Zetterstedt, 1838)
Agathomyia wankowiczii (Schnabl, 1884)
Agathomyia woodella Chandler in Shatalkin, 1985
 = *elegantula* auct. nec (Fallén, 1815)
Agathomyia zetterstedti (Wahlberg in Zetterstedt, 1844)
CALLOMYIA Meigen, 1804
Callomyia amoena Meigen, 1824
Callomyia elegans Meigen, 1804
 = *leptiformis* (Fallén, 1810)
Callomyia krivosheinae Shatalkin, 1982
Callomyia speciosa Meigen, 1824
 = *humeralis* Loew, 1869
 MICROSANIINAE Enderlein, 1936
MICROSANIA Zetterstedt, 1837
Microsania capnophila Shatalkin, 1985
Microsania collarti Chandler, 2001
Microsania pallipes (Meigen, 1830)
Microsania pectipennis (Meigen, 1830)
 = *pectinipennis* emend.
Microsania straeleni Collart, 1954
Microsania vrydaghi Collart, 1954
 PLATYPEZINAE Fallén, 1815
BOLOPUS Enderlein, 1932
Bolopus furcatus (Fallén, 1826)
PARAPLATYPEZA Kessel & Maggioncalda, 1968
Paraplatypeza atra (Meigen, 1804)
Paraplatypeza bicincta (Szilády, 1941)
PLATYPEZA Meigen, 1803
Platypeza aterrima Walker, 1836
Platypeza consobrina Zetterstedt, 1844
Platypeza fasciata Meigen, 1804
Platypeza hirticeps Verrall, 1901
PLATYPEZINA Wahlgren, 1910
Platypezina connexa (Bohemann, 1858)
POLYPORIVORA Kessel & Maggioncalda, 1968
Polyporivora boletina (Fallén, 1815)
Polyporivora ornata (Meigen, 1838)
 = *infumata* (Haliday, 1838)
Polyporivora picta (Meigen, 1830)
PROTOCLYTHIA Kessel, 1950
Protoclythia modesta (Zetterstedt, 1844)
SERI Kessel & Maggioncalda, 1966
Seri obscuripennis (Oldenberg, 1916)

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Checklist of the families Lonchopteridae and Phoridae of Finland (Insecta, Diptera)

Jere Kahanpää¹

¹ Finnish Museum of Natural History, Zoology Unit, P.O. Box 17, FI-00014 University of Helsinki, Finland

Corresponding author: Jere Kahanpää (jere.kahanpaa@helsinki.fi)

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Abstract

A checklist of the Lonchopteridae and Phoridae recorded from Finland is presented.

Keywords

Checklist, Finland, Diptera, Lonchopteridae, Phoridae

Introduction

The superfamily Phoroidea includes at least the fly families Phoridae, Lonchopteridae, and the small family Ironomyiidae known only from Australia. The flat-footed fly families Platypezidae and Opetiidae, treated in a separate paper in this volume, are placed either in their own basal superfamily Platypezoidea or included in Phoroidea (see Cumming et al. 1995, Woodley et al. 2009 and Wiegmann et al. 2011).

Lonchoptera Meigen, 1803 is the only currently recognized genus in Lonchopteridae. Five *Lonchoptera* species have been added to the Finnish fauna after the checklist of Hackman (1980) (Andersson 1991, Kahanpää 2013).

The scuttle flies (family Phoridae) may be the largest single family in Diptera. The true number of species in this family has been estimated to be over 30000, the vast majority still undescribed (Marshall 2012). The ‘megagenus’ *Megaselia* Rondani, 1856 contains about

50% of the species (Marshall 2012). Other phorid genera are relatively better known in Finland but none of them can be called well studied. It is likely that at least a hundred (or hundreds of) Finnish species remain unnoticed, most of them in *Megaselia*.

The checklist for *Megaselia* is mostly based on previously published records. The collections of Finnish Museum of Natural History (MZH) were examined by the author during the preparation of this checklist and a few obvious mistakes were taken into account. Most of the material in MZH was identified by H. Schmitz (between years 1915 and 1940) or E. Beyer (in 1958). The lists for other phorid genera are based on recently examined specimens from both MZH and private collections. Due to the difficulties encountered in identifying *Megaselia*, the list for this genus should definitely be considered preliminary. A revision of the Finnish material is sorely needed.

The Finnish species of these families were last listed by Hackman (1980).

Number of species (Lonchopteridae, Phoridae):

World: 63, 4105 species (Pape et al. 2011)

Europe: 13, 656 species

Finland: 8, ~224–234 species

Faunistic knowledge level in Finland: good, poor

Checklist

suborder Brachycera Macquart, 1834

clade Eremoneura Lameere, 1906

clade Cyclorrhapha Brauer, 1863

superfamily Phoroidea Curtis, 1833

LONCHOPTERIDAE Macquart, 1835

LONCHOPTERA Meigen, 1803

= *Dipsa* Fallén, 1810

Lonchoptera bifurcata (Fallén, 1810)

= *furcata* (Fallén, 1823)

Lonchoptera fallax de Meijere, 1906

Lonchoptera impicta Zetterstedt, 1848

Lonchoptera lutea Panzer, 1809

Lonchoptera meijerei Collin, 1938

Lonchoptera nigrociliata Duda, 1927

Lonchoptera nitidifrons Strobl, 1898

Lonchoptera scutellata Stein, 1890

PHORIDAE Curtis, 1833

AENIGMATIAS Meinert, 1890

Aenigmatias lubbockii (Verrall, 1877)

ANEVRINA Lioy, 1864*Anevrina thoracica* (Meigen, 1804)*Anevrina unispinosa* (Zetterstedt, 1860)= *fennica* (Becker, 1901)*Anevrina urbana* (Meigen, 1830)**BOROPHAGA** Enderlein, 1924*Borophaga agilis* (Meigen, 1830)*Borophaga carinifrons* (Zetterstedt, 1848)*Borophaga femorata* (Meigen, 1830)*Borophaga incrassata* (Meigen, 1830)*Borophaga subsultans* (Linnaeus, 1767)= *okellyi* Schmitz, 1937**CHAETOPLEUROPHORA** Schmitz, 1922*Chaetopleurophora erythronota* (Strobl, 1892)*Chaetopleurophora spinosissima* (Strobl, 1892)**CONICERA** Meigen, 1830*Conicera dauci* (Meigen, 1830)= *atra* Meigen, 1830*Conicera floricola* Schmitz, 1938= *similis* auct. nec (Haliday, 1833)= *minuscula* Schmitz, 1953*Conicera schnittmanni* Schmitz, 1926*Conicera similis* (Haliday, 1833)= *pauxilla* Schmitz, 1920? *Conicera tarsalis* Schmitz, 1920*Conicera tibialis* Schmitz, 1925= *fallens* Schmitz, 1948**DIPLONEVRA** Lioy, 1864= *Diploneura* emend.*Diploneura florescens* (Turton, 1801)= *florea* (Fabricius, 1794) preocc.= *abdominalis* (Fallén, 1823)*Diploneura concinna* (Meigen, 1830)*Diploneura freyi* Schmitz, 1927*Diploneura funebris* (Meigen, 1830)= *rostralis* (Schmitz, 1918)*Diploneura glabra* Schmitz, 1927= *parcepilosa* Schmitz, 1927*Diploneura nitidula* (Meigen, 1830)*Diploneura oldenbergi* Schmitz, 1920**DOHRNIPHORA** Dahl, 1898*Dohrniphora cornuta* (Bigot, 1857)**GYMNOPHORA** Macquart, 1835

- Gymnophora arcuata* (Meigen, 1830)
Gymnophora healeyae Disney, 1980
Gymnophora nigripennis Schmitz, 1926
Gymnophora quartomollis Schmitz, 1920
HYPOCERA Lioy, 1864
Hypocera mordellaria (Fallén, 1823)
MEGASELIA Rondani, 1856
 = **Aphiochaeta** Brues, 1903
 = **Plastophora** Brues, 1905
Megaselia aequalis (Wood, 1909)
Megaselia affinis (Wood, 1909)
 = *proxima* (Lundbeck, 1920)
Megaselia albicaudata (Wood, 1910)
Megaselia albiclava (Schmitz, 1926)
Megaselia altifrons (Wood, 1909)
Megaselia analis (Lundbeck, 1920)
 ? *Megaselia angelicae* (Wood, 1910)
Megaselia angularis (Schmitz, 1924)
Megaselia angusta (Wood, 1909)
 = *angustata* emend.
 = *pulicaria* auct. nec (Fallén, 1923)
Megaselia annulipes (Schmitz, 1921)
Megaselia armata (Wood, 1909)
Megaselia atrosericea Schmitz, 1927
Megaselia auricoma Schmitz, 1927
Megaselia baltica (Schmitz, 1924)
Megaselia barbulata (Wood, 1909)
 = *depilata* (Lundbeck, 1921)
 ? *Megaselia basispinata* (Lundbeck, 1920)
Megaselia basiveluta Schmitz, 1935
Megaselia beckeri (Wood, 1909)
 = *laticrus* Schmitz, 1927
Megaselia berndseni (Schmitz, 1919)
 = *pygmaeoides* (Lundbeck, 1921)
Megaselia bovista (Gimmerthal, 1848)
Megaselia brevicostalis (Wood, 1910)
Megaselia breviseta (Wood, 1912)
Megaselia breviterga (Lundbeck, 1920)
 = *similata* (Lundbeck, 1921)
Megaselia campestris (Wood, 1908)
Megaselia ciliata (Zetterstedt, 1848)
Megaselia cinereifrons (Strobl, 1910)
Megaselia clara (Schmitz, 1921)

- Megaselia coetanea* Schmitz, 1929
Megaselia coccyx Schmitz, 1965
? *Megaselia collini* (Wood, 1909)
Megaselia conformis (Wood, 1909)
Megaselia costalis (von Roser, 1840)
Megaselia curvivenia Schmitz, 1928
Megaselia dabli (Becker, 1901)
Megaselia discreta (Wood, 1909)
 = *nudiventris* (Wood, 1909)
Megaselia diversa (Wood, 1909)
Megaselia dubitalis (Wood, 1908)
Megaselia eccoptomera Schmitz, 1927
Megaselia eisfelderae Schmitz, 1948
Megaselia elongata (Wood, 1914)
Megaselia erecta (Wood, 1910)
Megaselia exarcuata Schmitz, 1927
Megaselia excavata Schmitz, 1927
Megaselia excorticata Disney, 2009
Megaselia fennicola Beyer, 1958
Megaselia flammula Schmitz, 1928
Megaselia flava (Fallén, 1823)
Megaselia flavicoxa (Zetterstedt, 1848)
Megaselia fumata (Malloch, 1909)
Megaselia funeralis Schmitz, 1928
Megaselia fungivora (Wood, 1909)
Megaselia fusca (Wood, 1909)
Megaselia fuscipalpis (Lundbeck, 1920)
Megaselia fuscoides Schmitz, 1934
Megaselia fuscovariana Schmitz, 1933
Megaselia giraudii (Egger, 1862)
Megaselia glabrifrons (Wood, 1909)
Megaselia groenlandica (Lundbeck, 1901)
Megaselia halterata (Wood, 1910)
 = *plurispinosa* (Lundbeck, 1920)
Megaselia hectochaeta Schmitz, 1974
Megaselia hilaris Schmitz, 1927
Megaselia hirsuta (Wood, 1910)
Megaselia hirticaudata (Wood, 1910)
Megaselia hirticrus (Schmitz, 1918)
Megaselia humeralis (Zetterstedt, 1838)
 = *cubitalis* (Becker, 1901)
Megaselia hyalipennis (Wood, 1912)
Megaselia infraposita (Wood, 1909)

- Megaselia ignobilis* (Schmitz, 1919)
Megaselia intonsa Schmitz, 1948
Megaselia involuta (Wood, 1910)
Megaselia latifemorata (Becker, 1901)
Megaselia limburgensis (Schmitz, 1918)
Megaselia longicostalis (Wood, 1912)
Megaselia longifurca (Lundbeck, 1921)
= *spinolabella* Disney, 1989
Megaselia longipalpis (Wood, 1910)
Megaselia longiseta (Wood, 1909)
Megaselia lucifrons (Schmitz, 1918)
= *subnitida* (Lundbeck, 1920)
Megaselia luminifrons (Schmitz, 1926)
Megaselia lutea (Meigen, 1830)
Megaselia major (Wood, 1912)
Megaselia mallochi (Wood, 1909)
Megaselia manicata (Wood, 1910)
Megaselia maura (Wood, 1910)
Megaselia meconicera (Speiser, 1925)
Megaselia meigeni (Becker, 1901)
? *Megaselia miki* Schmitz, 1929
Megaselia minor (Zetterstedt, 1848)
= *angustifrons* (Wood, 1912)
Megaselia minuta (Aldrich, 1892)
= *luminosa* Schmitz, 1952
Megaselia mixta (Schmitz, 1918)
Megaselia nasoni (Malloch, 1914)
= *coaequalis* (Schmitz, 1919)
Megaselia nigra (Meigen, 1830)
= *albidihalteralis* (Felt, 1896)
Megaselia nigriceps (Loew, 1866)
= *projecta* (Becker, 1901)
Megaselia nigripalpis (Lundbeck, 1920)
Megaselia nudipleura (Beyer, 1958)
Megaselia obscuripennis (Wood, 1909)
Megaselia offuscata (Schmitz, 1921)
Megaselia opacicornis Schmitz, 1949
Megaselia parnassia Disney, 1986
Megaselia parva (Wood, 1909)
Megaselia pectoralis (Wood, 1910)
Megaselia pectunculata Schmitz, 1927
Megaselia picta (Lehmann, 1822)
Megaselia pleuralis (Wood, 1909)

- Megaselia plurispinulosa* (Zetterstedt, 1860)
Megaselia posticata (Strobl, 1898)
Megaselia praeacuta (Schmitz, 1919)
Megaselia prodroma (Lundbeck, 1921)
Megaselia producta (Schmitz, 1921)
= *sordescens* auct. nec Schmitz, 1927
Megaselia propinqua (Wood, 1909)
Megaselia pubecula Schmitz, 1927
Megaselia pulicaria (Fallén, 1923)
= *sinuata* Schmitz, 1926
Megaselia pumila (Meigen, 1830)
= *atripes* (Brues, 1915)
Megaselia pusilla (Meigen, 1830)
Megaselia pygmaea (Zetterstedt, 1848)
Megaselia quadriseta (Schmitz, 1918)
= *badia* Schmitz, 1938
? *Megaselia raetica* Schmitz, 1934
Megaselia robertsoni Disney, 2008
Megaselia robusta Schmitz, 1928
Megaselia rubricornis (Schmitz, 1919)
Megaselia rudis (Wood, 1909)
Megaselia ruficornis (Meigen, 1830)
Megaselia rufipes (Meigen, 1804)
Megaselia scalaris (Loew, 1866)
Megaselia scutellaris (Wood, 1909)
= *scutellariformis* (Schmitz, 1926)
Megaselia sepulchralis (Lundbeck, 1920)
Megaselia setulipalpis Schmitz, 1938
Megaselia sordida (Zetterstedt, 1838)
= *eminens* Schmitz, 1953
= *semiscaura* Schmitz, 1927
? *Megaselia specularis* Schmitz, 1935
Megaselia spinicincta (Wood, 1910)
Megaselia spinigera (Wood, 1908)
Megaselia styloprocta (Schmitz, 1921)
Megaselia subcarpalis (Lundbeck, 1920)
Megaselia subpalpalis (Lundbeck, 1920)
Megaselia subpleuralis (Wood, 1909)
Megaselia subtumida (Wood, 1909)
Megaselia sulphuripes (Meigen, 1830)
Megaselia superciliata (Wood, 1910)
Megaselia superfurcata Schmitz, 1928
Megaselia sylvatica (Wood, 1910)

- = *impolluta* (Schmitz, 1920)
Megaselia tarsalis (Wood, 1910)
Megaselia tenuiventris Schmitz, 1927
Megaselia tignorum Disney, 2009
Megaselia tumida (Wood, 1909)
 = *setifer* Lundbeck, 1920
Megaselia unicolor (Schmitz, 1919)
Megaselia valvata Schmitz, 1935
Megaselia variana Schmitz, 1926
Megaselia vestita (Wood, 1914)
Megaselia winqvisti Disney, 2011
Megaselia woodi (Lundbeck, 1922)
Megaselia xanthozona (Strobl, 1892)
 = *euryprocta* Schmitz, 1957
Megaselia zonata (Zetterstedt, 1838)
MENOZZIOLA Schmitz, 1927
Menozziola obscuripes (Schmitz, 1927)
METOPINA Macquart, 1835
Metopina galeata (Haliday, 1833)
 = *inaequalis* Schmitz, 1927
Metopina oligoneura (Mik, 1867)
Metopina pileata Schmitz, 1936
MICROSELIA Schmitz, 1934
Microselia forsiusi (Schmitz, 1927)
PHALACROTOPHORA Enderlein, 1912
Phalacrotophora berlinensis Schmitz, 1920
Phalacrotophora beuki Disney in Disney & Beuk, 1997
Phalacrotophora fasciata (Fallén, 1823)
PHORA Latreille, 1796
 = *Trineura* Meigen, 1803
Phora artifrons Schmitz, 1920
Phora atra (Meigen, 1804)
 = *aterrima* (Fabricius, 1794) preocc.
Phora bullata Schmitz, 1927
Phora convallium Schmitz, 1928
Phora convergens Schmitz, 1920
Phora dubia (Zetterstedt, 1848)
 = *schineri* (Becker, 1901)
Phora edentata Schmitz, 1920
Phora hamata Schmitz, 1927
Phora holosericea Schmitz, 1920
Phora hyperborea Schmitz, 1927
Phora obscura (Zetterstedt, 1848)
Phora occidentata Malloch, 1912

- = *zetterstedti* Schmitz, 1927
Phora penicillata Schmitz, 1920
Phora praepandens Schmitz, 1927
Phora pubipes Schmitz, 1920
Phora stictica Meigen, 1830
Phora tinctoria Schmitz, 1920
PLECTANOCNEMA Schmitz, 1926
Plectanocnema nudipes (Becker, 1901)
PSEUDACTEON Coquillett, 1907
Pseudacteon fennicus Schmitz, 1927
Pseudacteon formicarum (Verrall, 1877)
SPINIPHORA Malloch, 1909
Spiniphora bergenstammi Mik, 1864
Spiniphora dorsalis (Becker, 1901)
Spiniphora excisa (Becker, 1901)
Spiniphora maculata (Meigen, 1830)
 = *helicivora* (Dufour, 1841)
TRIPHLEBA Rondani, 1856
 = **Citrigo** Schmitz, 1924
Triphleba admirabilis Schmitz, 1927
 ? *Triphleba aequalis* (Schmitz, 1919)
 ? *Triphleba autumnalis* (Becker, 1901)
Triphleba bicornuta (Strobl, 1910)
 = *uncinata* (Schmitz, 1918)
Triphleba citreiformis (Becker, 1901)
Triphleba distinguenda (Strobl, 1892)
 = *unicarata* (Becker, 1901)
Triphleba excisa (Lundbeck, 1921)
Triphleba gracilis (Wood, 1907)
Triphleba hyalinata (Meigen, 1830)
 ? *Triphleba inaequalis* Schmitz, 1943
Triphleba intermedia (Malloch, 1908)
Triphleba lugubris (Meigen, 1830)
Triphleba luteifemorata (Wood, 1906)
Triphleba nudipalpis (Becker, 1901)
Triphleba opaca (Meigen, 1830)
Triphleba pachyneurella (Schmitz, 1919)
Triphleba palposa (Zetterstedt, 1848)
Triphleba renidens Schmitz, 1927
Triphleba subcompleta Schmitz, 1927
Triphleba trinervis (Becker, 1901)
VERUANUS Schmitz, 1927
Veruanus oldenbergi Schmitz, 1919
 = *memorabilis* Schmitz, 1927

Excluded species

Megaselia cirriventris Schmitz, 1929 mistake?

Megaselia crassipes (Wood, 1909) misidentified

Megaselia digitalis Schmitz, 1957 mistake?

Megaselia indifferens (Lundbeck, 1920) not found within present borders

Megaselia lapponica Schmitz, 1928 not found within present borders

Megaselia luteipes (Schmitz, 1918) misidentified

Megaselia palmeni (Becker, 1901) not found within present borders

Megaselia septentrionalis (Schmitz, 1919) not found within present borders

Megaselia simulans (Wood, 1912) not found within present borders ?

Triphleba gilvipes Schmitz, 1943 not found within present borders

Notes

Conicera tarsalis, *Megaselia collini*. Records of these species are based on single females identified by H. Schmitz.

Megaselia basispinata, *M. miki*, *M. raetica*. Species recorded from Finland by Hackman (1980) and Disney (1991) but no Finnish specimens or published records with details could be located.

Megaselia cirriventris, *M. digitalis*. These species were recorded from ‘Fennia’ and ‘Lapland’ by Schmitz (1958), but all specimens listed are from the Abisko region in northern Sweden. It seems likely that Schmitz erroneously assigned the material from Swedish Lapland to Finland.

Megaselia luteipes. Examined specimens belong to *Megaselia* sp. not *luteipes* (females) (Espoo, leg. W. Hackman) and possibly *Megaselia* sp. 24 of Disney (2013) (Finland, Muonio, leg. J. Sahlberg and Russia, Kola, Kantalahti, leg. R. Frey).

Megaselia pulicaria agg. This difficult complex of species was revised by Disney (1999). The Finnish material has not been re-examined. The Finnish species involved are *M. angusta*, *M. costalis*, *M. longicostalis*, *M. longifurca*, *M. pulicaria*, *M. subtumida* and *M. tumida*.

Megaselia simulans. Recorded only(?) from Kuusamo, a municipality split between Finland and Russia in 1944. Most records preceding the split are from the Russian side. No material was found in MZH.

Megaselia specularis. Recorded, with some doubt, from Finland by Hackman (1963). No material could be found in MZH.

Triphleba aequalis. Schmitz (1943) mention a Finnish male stored in MZH, but no such specimen could be found.

Triphleba autumnalis, *T. inaequalis*. Finnish according to Disney (1991), but no specimens or detailed records could be located.

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Checklist of the family Pipunculidae (Diptera) of Finland

Christian Kehlmaier¹

¹ *c/o Senckenberg Natural History Collections Dresden, Museum of Zoology, Dresden, Germany*

Corresponding author: *Christian Kehlmaier* (kehlmaier@web.de)

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Abstract

A checklist of the Pipunculidae (Diptera) cited from Finland is presented. At present, 107 species have been recorded.

Keywords

Checklist, Finland, Diptera, Pipunculidae

Introduction

Pipunculidae or big-headed flies can be readily identified at family level by their large compound eyes occupying almost the entire globular head. Additional morphological autapomorphies at the family rank of this group are their enlarged anterior ommatidial facets in the female including a so far unique retinal pattern among Diptera, the piercer-like shape of the female ovipositor and the presence of a chitinized postspiracular plate of their last instar larvae (Wada 1991, Rafael and De Meyer 1992). Due to the small to medium sized adults (2–12 mm), their uniform dark appearance and their rather cryptic lifestyle, it takes some effort to detect them in the field. Therefore, Pipunculidae can best be collected by Malaise traps, although a trained eye and patience can yield species rich catches by hand-netting as well. Big-headed flies can be found in a variety of habitats, where they are hovering in between herbal vegetation or among leaves of bushes and trees, searching for food sources (mainly honeydew) and mating

partners or for suitable hosts for their parasitic larvae, which are important endoparasitoids of nymphal and adult Auchenorrhyncha (Chalarinae and Pipunculinae) and adult Tipulidae (Nephrocerinae) (Koenig and Young 2007). This highly specialized life-style is unique to this family of Diptera. Hardly any larvae have been described so far and the knowledge about their host specificity is fragmentary. For the European fauna, host records are available for 30% of the 209 known species, i.e., 62 pipunculid species have been reared from 59 host species in the past (Kehlmaier unpublished).

The knowledge of the Finnish fauna can be considered as good, with the latest review published only recently by Kehlmaier and Ståhls (2007). Whereas about a dozen additional species can be expected to be found, the distribution of the individual taxa within Finland is largely unknown.

Identification: Pipunculidae taxonomy largely depends on male genitalic features. Therefore, dissection of the male genital apparatus is essential and a high magnification of at least 50 times should be used for identification. Females can best be identified through a combination of outer anatomical features primarily based on the shape of the ovipositor. Most pipunculid genera present in Europe have been taxonomically reviewed within the past three decades. As no comprehensive key exists for northern Europe, adults have to be identified with the following set of publications: *Chalarus* (Kehlmaier and Assmann 2008, Kehlmaier 2010), *Jassidophaga* and *Verrallia* (Kuznetsov 1992, Kehlmaier 2006), *Nephrocerus* (Grootaert and De Meyer 1986), Cephalopsini (De Meyer 1989, Ackland 1993, Kehlmaier and De Meyer 2005, Kehlmaier 2008), Eudorylini (Kehlmaier 2005, Kuznetsov 1990), Pipunculini (Kehlmaier 2008), *Dorylomorpha* (Albrecht 1990), *Tomosvaryella* (Földvári and De Meyer 1999, Kehlmaier 2008).

Number of species:

World: 1428 species (Pape et al. 2011)

Europe: 209 species

Finland: 107 species

Faunistic knowledge level in Finland: good

Checklist

suborder Brachycera Macquart, 1834

clade Eremoneura Lameere, 1906

clade Aschiza Becher, 1882

superfamily Syrphoidea Latreille, 1802

PIPUNCULIDAE Walker, 1834

CHALARINAE Aczél, 1939

CHALARUS Walker, 1834

Chalarus basalis Loew, 1873

Chalarus brevicaudis Jervis, 1992

- Chalarus decorus* Jervis, 1992
Chalarus elegantulus Jervis, 1992
 = *absconditus* Kehlmaier in Kehlmaier & Assmann, 2008
Chalarus fimbriatus Coe, 1966
Chalarus gynocephalus Jervis, 1992
Chalarus holosericeus (Meigen, 1824)
 = *perplexus* Jervis, 1992
Chalarus immanis Kehlmaier, 2008
Chalarus indistinctus Jervis, 1992
Chalarus juliae Jervis, 1992
Chalarus latifrons Hardy, 1943
Chalarus pughi Coe, 1966
Chalarus spurius (Fallén, 1816)
 = *obscurus* (Zetterstedt, 1838)
 = *argenteus* misid.
JASSIDOPHAGA Aczél, 1939
Jassidophaga beatricis (Coe, 1966)
Jassidophaga fasciata (von Roser, 1840)
 = *setosa* (Verrall, 1901)
Jassidophaga pilosa (Zetterstedt, 1838)
Jassidophaga villosa (von Roser, 1840)
Jassidophaga spec. A
VERRALLIA Mik, 1899
Verrallia aucta (Fallén, 1817)
 NEPHROCERINAE Aczél, 1939
NEPHROCERUS Zetterstedt, 1838
Nephrocerus flavicornis Zetterstedt, 1844
Nephrocerus lapponicus Zetterstedt, 1838
Nephrocerus scutellatus (Macquart, 1834)
 PIPUNCULINAE Walker, 1834
 tribe Cephalopsini Macquart, 1834
CEPHALOPS Fallén, 1810
sg. Cephalops Fallén, 1810
Cephalops aeneus Fallén, 1810
Cephalops vittipes (Zetterstedt, 1844)
 = *annulipes* (Zetterstedt, 1838) in part
sg. Parabeckerias De Meyer, 1994
Cephalops obtusinervis (Zetterstedt, 1844)
sg. Semicephalops De Meyer, 1994
Cephalops carinatus (Verrall, 1901)
Cephalops straminipes (Becker, 1900)
 = *chlorionae* (Frey, 1945)
Cephalops subultimus Collin, 1956

- Cephalops varipes* (Meigen, 1824)
 = *semifumosus* (Kowarz, 1887)
CEPHALOSPHAERA Enderlein, 1936
Cephalosphaera furcata (Egger, 1860)
Cephalosphaera germanica Aczél, 1940
 tribe Eudorylini Rafael & De Meyer, 1992
CLISTOABDOMINALIS Skevington, 2001
Clistoabdominalis doczkali Kehlmaier, 2005
EUDORYLAS Aczél, 1940
Eudorylas angustimembranus Kozánek & Kwon, 1991
 = *kozanecki* De Meyer, 1993
Eudorylas arcanus Coe, 1966
Eudorylas barkalovi Kuznetzov, 1990
Eudorylas carpathicus Kozánek, 1993
Eudorylas coloratus (Becker, 1897)
Eudorylas elephas (Becker, 1897)
Eudorylas fascipes (Zetterstedt, 1844)
Eudorylas furvulus Collin, 1956
Eudorylas fuscipes (Zetterstedt, 1844)
 = *roseri* misid.
 = *trochanteratus* misid.
Eudorylas fusculus (Zetterstedt, 1844)
Eudorylas goennersdorfensis Dempewolf & Dunk, 1996
Eudorylas inferus Collin, 1956
Eudorylas jenkinsoni Coe, 1966
Eudorylas johnenae Dempewolf, 1996
Eudorylas kowarzi (Becker, 1897)
Eudorylas montium (Becker, 1897)
Eudorylas obscurus Coe, 1966
Eudorylas restrictus Coe, 1966
 = *pannonicus* misid.
Eudorylas slovacus Kozánek, 1993
Eudorylas stackelbergi Kuznetzov, 1990
Eudorylas subfascipes Collin, 1956
Eudorylas subterminalis Collin, 1956
Eudorylas terminalis (Thomson, 1870)
Eudorylas unicolor (Zetterstedt, 1844)
Eudorylas vonderdunki Dempewolf, 1998
Eudorylas zermattensis (Becker, 1897)
Eudorylas zonatus (Zetterstedt, 1849)
Eudorylas zonellus Collin, 1956
 tribe Microcephalopsini Rafael & De Meyer, 1991
MICROCEPHALOPS De Meyer, 1989

- Microcephalops opacus* (Fallén, 1816)
 = *vestitus* (Becker, 1900)
 tribe Pipunculini Walker, 1834
PIPUNCULUS Latreille, 1802
Pipunculus calceatus von Roser, 1840
Pipunculus campestris Latreille, 1802
 = *ater* Meigen, 1824
 = *spinipes* Meigen, 1830
 = *thomsoni* Becker, 1897
Pipunculus dimi Kuznetsov, 1991
Pipunculus elegans Egger, 1860
 = *spinipes* auct. nec Meigen, 1830
Pipunculus fonsecai Coe, 1966
Pipunculus lenis Kuznetsov, 1991
 = *thomsoni* auct. nec Becker, 1897
Pipunculus lichtwardti Kozanek, 1981
Pipunculus oldenbergi Collin, 1956
Pipunculus omissinervis Becker, 1889
Pipunculus tenuirostris Kozanek, 1981
 = *balticus* Kuznetsov, 1991
Pipunculus violovitshi Kuznetsov, 1991
 = *varipes* auct. nec Meigen, 1824
Pipunculus zugmayeriae Kowarz, 1887
 tribe Tomosvaryellini Hardy, 1943
DORYLOMORPHA Aczél, 1939
sg. Dorylomorpha Aczél, 1939
Dorylomorpha aczeli (Hardy, 1947)
Dorylomorpha confusa (Verrall, 1901)
Dorylomorpha extricata (Collin, 1937)
Dorylomorpha imparata (Collin, 1937)
Dorylomorpha rufipes (Meigen, 1824)
 = *xanthocerooides* (Aczél, 1939)
Dorylomorpha spinosa Albrecht, 1979
sg. Dorylomyia Albrecht, 1990
Dorylomorpha beckeri (Aczél, 1939)
Dorylomorpha xanthocera (Kowarz, 1887)
sg. Dorylomyza Albrecht, 1990
Dorylomorpha albitarsis (Zetterstedt, 1844)
Dorylomorpha anderssoni Albrecht, 1979
Dorylomorpha canadensis Hardy, 1943
Dorylomorpha clavata Albrecht, 1979
Dorylomorpha clavifemora Coe, 1966
Dorylomorpha fennica Albrecht, 1979

- Dorylomorpha hackmani* Albrecht, 1979
Dorylomorpha haemorrhoidalis (Zetterstedt, 1838)
Dorylomorpha infirmata (Collin, 1937)
Dorylomorpha lautereri Albrecht, 1990
Dorylomorpha occidens (Hardy, 1939)
Dorylomorpha onegensis Albrecht, 1990
Dorylomorpha platystylis Albrecht, 1979
Dorylomorpha praetermissa Albrecht, 1979
Dorylomorpha xanthopus (Thomson, 1870)
sg. *Pipunculina* Albrecht, 1990
Dorylomorpha borealis (Wahlgren, 1910)
Dorylomorpha maculata (Walker, 1834)
TOMOSVARYELLA Aczél, 1939
 = *Alloneura* Rondani, 1856 nomen nudum
Tomosvaryella cilitarsis (Strobl, 1910)
 = *forsiusi* (Frey, 1932)
Tomosvaryella coquilletti (Kertész, 1907)
Tomosvaryella geniculata (Meigen, 1824)
 = *nigritula* (Zetterstedt, 1844)
Tomosvaryella kalevala Kehlmaier, 2008
Tomosvaryella kuthyi Aczél, 1944
Tomosvaryella minuscula (Collin, 1956)
 = *magyarica* Földvári & De Meyer, 1999
Tomosvaryella palliditarsis (Collin, 1931)
Tomosvaryella rossica Kuznetzov, 1993
Tomosvaryella sylvatica (Meigen, 1824)

Excluded species (as discussed in Kehlmaier and Ståhls 2007)

- Claraeola halterata* (Meigen, 1838) misidentified
Dorylomorpha incognita (Verrall, 1901) misidentified
Clistoabdominalis trochanteratus (Becker, 1900) misidentified
Dasydorylas roseri (Becker, 1897) misidentified
Eudorylas pannonicus (Becker, 1897) misidentified

Notes

***Chalarus argenteus* Coe, 1966.** The single Finnish specimen previously identified as *C. argenteus* was re-examined and was found to belong to *C. spurius* (Kaj Winqvist, pers. comm.).

***Jassidophaga* spec. A.** The specimens summarised under this place holder in Kehlmaier and Ståhls (2008) might represent an additional species. Using the key in Kuznetzov (1992), males run towards the Eastern Palaearctic *J. kurilensis* (Kuznetzov, 1992), whereas females are closest to *J. beatrixis*.

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Checklist of the family Syrphidae (Diptera) of Finland

Antti Haarto¹, Sakari Kerppola²

1 Zoological Museum, Section of Biodiversity and Environmental Science, Department of Biology, FI-20014 University of Turku, Finland **2** Hiihtomäentie 44 A 6, FI-00800 Helsinki, Finland

Corresponding author: Antti Haarto (ahaarto@gmail.com)

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Abstract

A checklist of the Syrphidae (Diptera) recorded from Finland. Three species of Syrphidae, *Platycheirus modestus* Ide, 1926, *Cheilosia barovskii* (Stackelberg, 1930) and *Mallota tricolor* Loew, 1871, are published as new to the Finnish fauna. *P. modestus* is also new to the Palaearctic.

Keywords

Checklist, Finland, Diptera, Syrphidae, faunistics

Introduction

Adults of Syrphidae (hoverflies or flower flies) are mimics of bees, bumblebees, wasps and sawflies. Syrphid flies are active visitors of flowers for nectar and pollen and therefore they are important pollinators. The syrphid adults are excellent fliers and often seen hovering.

The larvae of hoverflies exploit a wide range of food sources. The majority of the species are predators and a large number of them feed on aphids. Almost half of the syrphid species are phytophagous or saprophagous. The larvae of phytophagous species tunnel in roots and stems of plants and some mine in leaves, but this rarely causes

significant economic damage. Aquatic larvae are saprophagous in decaying organic material and feed on detritus or filter bacteria. Also larvae living in dead wood and in sap runs probably filter bacteria from the decaying mass. (Marshall 2012, Van Veen 2004).

Only a few active Diptera researchers, Richard Frey, Wolter Hellén and Erkki Kanervo, studied the fauna of Finnish syrphids from the 1910s to the 1960s. They created a very good base for the knowledge of the Finnish syrphid fauna. Hackman (1980) published a list of the Finnish flies including 270 species of hoverflies. The beginning of the 2000s was an active period for faunistic research of the hoverfly fauna and the number of recorded hoverfly species had increased to 347 as the book on Finnish hoverflies (Haarto and Kerppola 2007a) was published. After that the knowledge has still been increasing thanks to working on the taxonomy and faunistics of the Finnish hoverfly fauna so that the distribution can be considered as well-known for over 90 per cent of the Finnish hoverfly species (Kahanpää 2010).

The Finnish hoverfly species were last listed by Kerppola (2013) with additions and omissions of species and with some nomenclature changes.

Identification: The Finnish syrphid fauna is best covered for identification by Haarto and Kerppola (2007a) and Bartsch (2009) although some species are missing in these books. Most of the species can be identified by external characters but some species require male genitalic characters for reliable determination.

Number of species:

World: 6015 species (Pape et al. 2011)

Europe: 830 species

Finland: 362 species

Faunistic knowledge level in Finland: good

Checklist

suborder Brachycera Macquart, 1834

clade Eremoneura Lameere, 1906

clade Aschiza Becher, 1882

superfamily Syrphoidea Latreille, 1802

SYRPHIDAE Latreille, 1802

SYRPHINAE Latreille, 1802

tribe Bacchini Bigot, 1883

BACCHA Fabricius, 1805

Baccha elongata (Fabricius, 1775)

= *obscuripennis* Meigen, 1822

tribe Melanostomini Williston, 1885

MELANOSTOMA Schiner, 1860

- Melanostoma dubium* (Zetterstedt, 1837)
 = *freyi* (Hellén, 1950)
Melanostoma mellinum (Linnaeus, 1758)
Melanostoma scalare (Fabricius, 1794)
PLATYCHEIRUS Le Peletier & Serville, 1828
sg. *Platycheirus* Le Peletier & Serville, 1828
Platycheirus aeratus Coquillet, 1900
 = *angustitarsis* Kanervo, 1934
Platycheirus albimanus (Fabricius, 1781)
Platycheirus ambiguus (Fallén, 1817)
Platycheirus amplus Curran, 1927
Platycheirus angustatus (Zetterstedt, 1843)
Platycheirus aurolateralis (Stubbs, 2002)
Platycheirus brunnifrons Nielsen, 2004
Platycheirus carinatus (Curran, 1927)
 ? = *hirtipes* Kanervo, 1938
Platycheirus clypeatus (Meigen, 1822)
Platycheirus discimanus Loew, 1871
Platycheirus europaeus Goeldlin, Maibach & Speight, 1990
Platycheirus fulviventris (Macquart, 1829)
Platycheirus goeldlini Nielsen, 2004
Platycheirus groenlandicus Curran, 1927
 = *boreomontanus* Nielsen, 1981
 = *monticolus* Nielsen, 1972 preocc.
Platycheirus holarcticus Vockeroth, 1990
Platycheirus hyperboreus (Staeger, 1844)
Platycheirus immarginatus (Zetterstedt, 1849)
Platycheirus jaerensis Nielsen, 1971
Platycheirus kittilaensis Dušek & Láska, 1982
 = *complicatus* misid.
Platycheirus laskai Nielsen, 1999
Platycheirus latimanus (Wahlberg, 1844)
Platycheirus lundbecki (Collin, 1931)
Platycheirus magadanensis Mutin, 1999
Platycheirus manicatus (Meigen, 1822)
Platycheirus modestus Ide, 1926
Platycheirus nielseni Vockeroth, 1990
Platycheirus nigrofemoratus Kanervo, 1934
Platycheirus occultus Goeldlin, Maibach & Speight, 1990
Platycheirus parmatus Rondani, 1857
Platycheirus peltatus (Meigen, 1822)
Platycheirus perpallidus Verral, 1901
Platycheirus podagratus (Zetterstedt, 1838)

Platycheirus ramsarensis Goeldlin, Maibach & Speight, 1990

Platycheirus scambus (Staeger, 1843)

Platycheirus scutatus (Meigen, 1822)

Platycheirus splendidus Rotheray, 1998

Platycheirus sticticus (Meigen, 1822)

Platycheirus subordinatus Becker, 1915

Platycheirus tarsalis (Schummel, 1836)

Platycheirus transfugus (Zetterstedt, 1838)

Platycheirus urakawensis (Matsumura, 1919)

Platycheirus varipes Curran, 1923

sg. *Pyrophaena* Schiner, 1860

Platycheirus granditarsus (Forster, 1771)

Platycheirus rosarum (Fabricius, 1787)

XANTHANDRUS Verrall, 1901

Xanthandrus comtus (Harris, 1780)

tribe Paragini Glumac, 1961

PARAGUS Latreille, 1804

Paragus constrictus Šimić, 1986

Paragus finitimus Goeldlin, 1971

Paragus haemorrhous Meigen, 1822

= *sigillatus* Curtis, 1836

Paragus pecchiolii Rondani, 1857

= *majoranae* auct. nec Rondani, 1857

= *albifrons* misid.

Paragus tibialis (Fallén, 1817)

tribe Chrysotoxini Newman, 1834

CHRYSOTOXUM Meigen, 1803

Chrysotoxum arcuatum (Linnaeus, 1758)

= *fasciatum* (Müller, 1764)

Chrysotoxum bicinctum (Linnaeus, 1758)

Chrysotoxum cautum (Harris, 1776)

Chrysotoxum fasciolatum (De Geer, 1776)

Chrysotoxum festivum (Linnaeus, 1758)

= *arcuatum* auct. nec (Linnaeus, 1758)

Chrysotoxum octomaculatum Curtis, 1937

= *elegans* misid.

Chrysotoxum vernale Loew, 1841

tribe Syrphini Latreille, 1802

DASYSYRPHUS Enderlein, 1838

Dasysyrphus albostriatus (Fallén, 1817)

Dasysyrphus friuliensis (van der Goot, 1960)

= *claviger* (Frey, 1930)

= *carpathicus* Stys & Moucha, 1962

- Dasysyrphus hilaris* (Zetterstedt, 1843)
Dasysyrphus nigricornis (Verrall, 1873)
 = *obscuratus* (Ringdahl, 1928)
Dasysyrphus pauxillus (Williston, 1887)
Dasysyrphus pinastri (De Geer, 1776)
 = *lunulatus* (Meigen, 1822)
Dasysyrphus postclaviger Stys & Moucha, 1962
 = *claviger* (Frey, 1930) preocc.
Dasysyrphus tricinctus (Fallén, 1817)
Dasysyrphus venustus (Meigen, 1822)
 = *arcuatus* (Fallén, 1817)
DIDEA Macquart, 1834
Didea alneti (Fallén, 1817)
Didea fasciata Macquart, 1834
Didea intermedia Loew, 1854
DOROS Meigen, 1803
Doros profuges (Harris, 1780)
 = *conopseus* auct. nec (Linnaeus, 1758)
EPISTROPHE Walker, 1852
Epistrophe annularis Stackelberg, 1918
Epistrophe cryptica Doczkal & Schmid, 1994
Epistrophe diaphana (Zetterstedt, 1843)
Epistrophe eligans (Harris, 1780)
 = *bifasciata* (Fabricius, 1794) preocc.
Epistrophe flava Doczkal & Schmid, 1994
 = *melanostomoides* misid.
Epistrophe grossulariae (Meigen, 1822)
Epistrophe melanostoma (Zetterstedt, 1843)
 = *melanostomoides* Strobl, 1910
Epistrophe nitidicollis (Meigen, 1822)
Epistrophe obscuripes (Strobl, 1910)
 = *similis* Doczkal & Schmid, 1994
Epistrophe ochrostoma (Zetterstedt, 1849)
Epistrophe olgae Mutin, 1990
EPISTROPHELLA Dušek & Láska, 1967
Epistrophella euchroma (Kowarz, 1885)
EPISYRPHUS Matsumura & Adachi, 1917
Episyrphus balteatus (De Geer, 1776)
ERIOZONA Schiner, 1860
Eriozona syrphoides (Fallén, 1817)
EUPEODES Osten Sacken, 1877
 = *Metasyrphus* Matsumura, 1917
Eupeodes abiskoensis (Dušek & Láska, 1973)

- Eupeodes biciki* (Nielsen, 2003)
Eupeodes bucculatus (Rondani, 1857)
 = *latilunulatus* (Collin, 1931)
Eupeodes corollae (Fabricius, 1794)
Eupeodes curtus (Hine, 1922)
Eupeodes duseki Mazánek, Láska & Bicik, 1999
Eupeodes goeldlini Mazánek, Láska & Bicik, 1999
Eupeodes latifasciatus (Macquart, 1829)
Eupeodes lundbecki (Soot-Ryen, 1946)
Eupeodes luniger (Meigen, 1822)
Eupeodes nielseni (Dušek & Láska, 1976)
Eupeodes nitens (Zetterstedt, 1843)
Eupeodes punctifer (Frey, 1934)
 = *borealis* misid.
Eupeodes tirolensis (Dušek & Láska, 1973)
FAGISYRPHUS Dušek & Láska, 1967
Fagisyrrhus cinctus (Fallén, 1817)
LAPPOSYRPHUS Dušek & Láska, 1967
Lapposyrphus lapponicus (Zetterstedt, 1838)
LEUCOZONA Schiner, 1860
sg. *Leucozonia* Schiner, 1860
Leucozonia inopinata Doczkal, 2000
Leucozonia lucorum (Linnaeus, 1758)
sg. *Ischyrosyrphus* Bigot, 1882
Leucozonia glaucia (Linnaeus, 1758)
Leucozonia laternaria (Müller, 1776)
MEGASYRPHUS Dušek & Láska, 1967
Megasyrphus erraticus (Linnaeus, 1758)
 = *annulipes* (Zetterstedt, 1838)
MELANGYNA Verrall, 1901
Melangyna arctica (Zetterstedt, 1838)
Melangyna barbifrons (Fallén, 1817)
Melangyna coei Nielsen, 1971
Melangyna compositarum (Verrall, 1873)
Melangyna lasiophthalma (Zetterstedt, 1843)
Melangyna lucifera Nielsen, 1980
Melangyna quadrimaculata (Verrall, 1873)
Melangyna umbellatarum (Fabricius, 1794)
MELIGRAMMA Frey, 1946
Meligramma guttata (Fallén, 1817)
Meligramma triangulifera (Zetterstedt, 1843)
MELISCAEVA Frey, 1946
Meliscaeva auricollis (Meigen, 1822)

- Meliscaeva cinctella* (Zetterstedt, 1843)
PARASYRPHUS Matsumura, 1917
Parasyrphus annulatus (Zetterstedt, 1838)
Parasyrphus groenlandicus (Nielsen, 1910)
Parasyrphus lineolus (Zetterstedt, 1843)
Parasyrphus macularis (Zetterstedt, 1843)
Parasyrphus malinellus (Collin, 1952)
Parasyrphus nigritarsis (Zetterstedt, 1843)
Parasyrphus proximus Mutin, 1990
Parasyrphus punctulatus (Verrall, 1873)
Parasyrphus tarsatus (Zetterstedt, 1838)
 = *dryadis* (Holmgren, 1869)
Parasyrphus vittiger (Zetterstedt, 1843)
SCAEVA Fabricius, 1805
Scaeva pyrastris (Linnaeus, 1758)
Scaeva selenitica (Meigen, 1822)
SPHAEROPHORIA Lepeletier & Serville, 1828
Sphaerophoria abbreviata Zetterstedt, 1859
Sphaerophoria bankowskiae Goeldlin, 1989
Sphaerophoria batava Goeldlin, 1974
Sphaerophoria boreoalpina Goeldlin, 1989
Sphaerophoria chongjini Bankowska, 1964
Sphaerophoria fatarum Goeldlin, 1989
Sphaerophoria interrupta (Fabricius, 1805)
 = *menthastris* (Linnaeus, 1758)
Sphaerophoria kaa Violovitsh, 1960
Sphaerophoria laurae Goeldlin, 1989
Sphaerophoria loewi Zetterstedt, 1843
Sphaerophoria pallidula Mutin, 1999
Sphaerophoria philantha (Meigen, 1822)
 = *sarmatica* Bankowska, 1964
Sphaerophoria rueppelli (Wiedemann, 1830)
Sphaerophoria scripta (Linnaeus, 1758)
Sphaerophoria taeniata (Meigen, 1822)
Sphaerophoria virgata Goeldlin, 1974
SYRPHUS Fabricius, 1775
Syrphus admirandus Goeldlin, 1996
Syrphus attenuatus Hine, 1922
 = *pilisquamus* Ringdahl, 1928
Syrphus ribesii (Linnaeus, 1758)
 = *brevicinctus* Kanervo, 1938
Syrphus sexmaculatus Zetterstedt, 1838
Syrphus torvus Osten Sacken, 1875

- Syrphus vitripennis* Meigen, 1822
 = *rectus bretoletensis* Goeldlin, 1996
- XANTHOGRAMMA** Schiner, 1860
- Xanthogramma citrofasciatum* (De Geer, 1776)
 = *festivum* auct. nec (Linnaeus, 1758)
- Xanthogramma pedisequum* (Harris, 1776)
- Xanthogramma stackelbergi* Violovitsh, 1975
- MILESIINAE Rondani, 1845
- tribe Cerioidini Wahlgren, 1909
- CERIANA** Rafinesque, 1815
- Ceriana conopsoides* (Linnaeus, 1758)
- SPHIXIMORPHA** Rondani, 1850
- Sphiximorpha subsessilis* (Illiger in Rossi, 1807)
- tribe Cheilosini Williston, 1885
- CHEILOSIA** Meigen, 1822
- Cheilosia alba* Vujić & Claussen, 2000
- Cheilosia albipila* Meigen, 1838
- Cheilosia albitarsis* (Meigen, 1822)
- Cheilosia alpina* (Zetterstedt, 1838)
- Cheilosia angustigenis* Becker, 1894
- Cheilosia barbata* Loew, 1857
 = *honesta* Rondani, 1868
- Cheilosia barovskii* (Stackelberg, 1930)
- Cheilosia carbonaria* Egger, 1860
- Cheilosia chrysocoma* (Meigen, 1822)
- Cheilosia cynocephala* Loew, 1840
- Cheilosia flavipes* (Panzer, 1798)
- Cheilosia flavissima* Becker, 1894
 = *pallipes* auct. nec Loew, 1863
- Cheilosia fraterna* (Meigen, 1830)
- Cheilosia frontalis* Loew, 1857
- Cheilosia gigantea* (Zetterstedt, 1838)
 = *gracilis* Hellén, 1914
- Cheilosia grossa* (Fallén, 1817)
- Cheilosia illustrata* (Harris, 1780)
- Cheilosia impressa* Loew, 1840
- Cheilosia ingerae* Nielsen & Claussen, 2001
- Cheilosia lasiopa* Kowarz, 1885
 = *honesta* auct. nec Rondani, 1868
- Cheilosia latifrons* (Zetterstedt, 1843)
 = *intonsa* Loew, 1857
- Cheilosia longula* (Zetterstedt, 1838)
 = *plumulifera* Loew, 1857

= *soror* misid.

Cheilosia melanopa (Zetterstedt, 1843)

Cheilosia morio (Zetterstedt, 1838)

Cheilosia mutabilis (Fallén, 1817)

= *ruralis* (Meigen, 1822)

Cheilosia naruska Haarto & Kerppola, 2007

Cheilosia nebulosa Verrall, 1871

= *langhofferi* Becker, 1894

Cheilosia nigripes (Meigen, 1822)

Cheilosia pagana (Meigen, 1822)

Cheilosia proxima (Zetterstedt, 1843)

Cheilosia psilophthalma Becker, 1894

Cheilosia pubera (Zetterstedt, 1838)

Cheilosia reniformis Hellén, 1930

Cheilosia rufimana Becker, 1894

Cheilosia sahlbergi Becker, 1894

Cheilosia scutellata (Fallén, 1817)

Cheilosia semifasciata Becker, 1894

Cheilosia sootryeni Nielsen, 1970

Cheilosia urbana (Meigen, 1822)

= *ruralis* (Meigen, 1822)

= *praecox* (Zetterstedt, 1843)

= *globulipes* Becker, 1894

Cheilosia uviformis Becker, 1894

= *argentifrons* Hellén, 1914

Cheilosia variabilis (Panzer, 1798)

Cheilosia velutina Loew, 1840

Cheilosia vernalis (Fallén, 1817)

= *rotundicornis* Hellén, 1914

= *rotundiventris* Becker, 1894

= *ruficollis* Becker, 1894

Cheilosia vicina (Zetterstedt, 1849)

= *nasutula* Becker, 1894

Cheilosia vulpina (Meigen, 1822)

Cheilosia sp. A in Haarto & Kerppola, 2007

FERDINANDEA Rondani, 1844

Ferdinandea cuprea (Scopoli, 1763)

RHINGIA Scopoli, 1763

Rhingia borealis Ringdahl, 1928

= *austriaca* auct. nec Meigen, 1830

Rhingia campestris Meigen, 1822

tribe Chrysogasterini Shannon, 1922

BRACHYOPA Meigen, 1822

- Brachyopa cinerea* Wahlberg, 1844
Brachyopa dorsata Zetterstedt, 1837
Brachyopa obscura Thompson & Torp, 1982
Brachyopa pilosa Collin, 1939
 = *bicolor* misid.
Brachyopa testacea (Fallén, 1817)
 = *conica* misid.
Brachyopa vittata Zetterstedt, 1843
Brachyopa zbelochovtsevi Mutin, 1998
CHRYSOGASTER Meigen, 1803
Chrysogaster coemeteriorum (Linnaeus, 1758)
 = *cemeteriorum* emend.
 = *chalybeata* Meigen, 1822
Chrysogaster solstitialis (Fallén, 1817)
Chrysogaster virescens Loew, 1854
CHRYSOSYRPHUS Sedman, 1965
 = *Helleniola* Stackelberg, 1965
Chrysosyrphus nasutus (Zetterstedt, 1838)
Chrysosyrphus niger (Zetterstedt, 1843)
 = *Myolepta nigra* mistake
HAMMERSCHMIDTIA Schummel, 1834
Hammerschmidtia ferruginea (Fallén, 1817)
Hammerschmidtia ingrlica Stackelberg, 1952
LEJOGASTER Rondani, 1857
Lejogaster metallina (Fabricius, 1781)
Lejogaster tarsata (Meigen, 1822)
 = *splendida* (Meigen, 1822)
MELANOGASTER Rondani, 1857
Melanogaster aerosa (Loew, 1843)
 = *macquarti* (Loew, 1843)
 = *viduata* misid.
Melanogaster parumplicata (Loew, 1840)
NEOASCIA Williston, 1886
sg. Neoascia Williston, 1886
Neoascia podagrica (Fabricius, 1775)
Neoascia tenur (Harris, 1780)
 = *dispar* (Meigen, 1822)
 = *lapponica* Kanervo, 1934
 = *splendida* Kanervo, 1934
sg. Neoasciella Stackelberg, 1970
Neoascia geniculata (Meigen, 1822)
Neoascia interrupta (Meigen, 1822)
Neoascia meticulosa (Scopoli, 1763)

- = *aenea* (Meigen, 1822)
Neoascia obliqua Coe, 1940
Neoascia subchalybea Curran, 1925
 = *petsamoensis* Kanervo, 1934
ORTHONEVRA Macquart, 1829
Orthonevra elegans (Meigen, 1822)
Orthonevra erythrogonia (Malm, 1863)
Orthonevra geniculata (Meigen, 1830)
 = *linnaniemii* Kanervo, 1934
Orthonevra intermedia Lundbeck, 1916
 = *rossica* Stackelberg, 1953
Orthonevra nobilis (Fallén, 1817)
Orthonevra plumbago (Loew, 1840)
 = *brevicornis* misid.
Orthonevra stackelbergi Thompson & Torp, 1982
 = *intermedia* misid.
SPHEGINA Meigen, 1822
sg. *Sphegina* Meigen, 1822
Sphegina clunipes (Fallén, 1816)
Sphegina elegans Schummel, 1843
 = *kimakowiczi* misid.
Sphegina montana Becker, 1921
 = *violovitshi* misid.
 = *verecunda* misid.
Sphegina spheginea (Zetterstedt, 1838)
sg. *Asiosphegina* Stackelberg, 1975
Sphegina sibirica Stackelberg, 1953
 tribe Eristalini Newman, 1834
ANASIMYIA Schiner, 1864
 = ***Eurimyia*** Bigot, 1883
Anasimyia contracta Claussen & Torp, 1980
Anasimyia interpuncta (Harris, 1776)
Anasimyia lineata (Fabricius, 1787)
Anasimyia lunulata (Meigen, 1822)
Anasimyia transfuga (Linnaeus, 1758)
ERISTALINUS Rondani, 1845
Eristalinus aeneus (Scopoli, 1763)
Eristalinus sepulchralis (Linnaeus, 1758)
ERISTALIS Latreille, 1804
Eristalis abusiva Collin, 1931
Eristalis alpina (Panzer, 1798)
Eristalis anthophorina (Fallén, 1817)
Eristalis arbustorum (Linnaeus, 1758)

- = *nemorum* auct. nec (Linnaeus, 1758)
Eristalis cryptarum (Fabricius, 1794)
Eristalis fratercula Zetterstedt, 1838
 = *vallei* Kanervo, 1934
Eristalis gomojunovae Violovitsh, 1977
 = *fratercula* auct. nec Zetterstedt, 1838
Eristalis hirta Loew, 1866
 = *E. tundrarum* Frey, 1932
Eristalis horticola (De Geer, 1776)
 = *lineata* (Harris, 1776)
Eristalis intricaria (Linnaeus, 1758)
Eristalis nemorum (Linnaeus, 1758)
 = *interrupta* (Poda, 1761)
Eristalis obscura Loew, 1866
 = *pseudorupium* Kanervo, 1938
 = *vitripennis* Strobl, 1893
Eristalis oestracea (Linnaeus, 1758)
Eristalis pertinax (Scopoli, 1763)
Eristalis picea (Fallén, 1817)
Eristalis rupium (Fabricius, 1805)
Eristalis similis (Fallén, 1817)
 = *pratorum* (Meigen, 1822)
Eristalis tenax (Linnaeus, 1758)
HELOPHILUS Meigen, 1822
Helophilus affinis Wahlberg, 1844
Helophilus bottnicus Wahlberg, 1844
Helophilus groenlandicus (Fabricius, 1780)
Helophilus hybridus Loew, 1846
Helophilus lapponicus Wahlberg, 1844
 = *borealis* Staeger, 1845
Helophilus pendulus (Linnaeus, 1758)
Helophilus trivittatus (Fabricius, 1805)
 = *parallelus* (Harris, 1776)
MALLOTA Meigen, 1822
Mallota megilliformis (Fallén, 1817)
Mallota tricolor Loew, 1871
MYATHROPA Rondani, 1845
Myathropa florea (Linnaeus, 1758)
PARHELOPHILUS Girschner, 1897
Parhelophilus consimilis (Malm, 1863)
Parhelophilus frutetorum (Fabricius, 1775)
Parhelophilus versicolor (Fabricius, 1794)
 tribe Eumerini Smirnov, 1924

EUMERUS Meigen, 1822*Eumerus flavitarsis* Zetterstedt, 1843*Eumerus funeralis* Meigen, 1822= *tuberculatus* Rondani, 1857*Eumerus grandis* Meigen, 1822= *annulatus* (Panzer, 1798)*Eumerus ruficornis* Meigen, 1822*Eumerus sabulonum* (Fallén, 1817)*Eumerus strigatus* (Fallén, 1817)

tribe Merodontini Edwards, 1915

MERODON Meigen, 1803*Merodon equestris* (Fabricius, 1794)

tribe Pelecocerini Williston, 1887

PELECOCERA Meigen, 1822= *Chamaesyrrhus* Mik, 1895*Pelecocera caledonica* (Collin, 1940)*Pelecocera lusitanica* (Mik, 1898)*Pelecocera scaevoides* (Fallén, 1817)*Pelecocera tricincta* Meigen, 1822

tribe Pipizini Williston, 1885

CRYPTOPIPIZA Mutin, 1998*Cryptopipiza notabila* (Violovitsh, 1985)**HERINGIA** Rondani, 1856*Heringia heringi* (Zetterstedt, 1843)**NEOCNEMODON** Goffe, 1944= *Cnemodon* Egger, 1865 preocc.*Neocnemodon fulvimanus* (Zetterstedt, 1843)*Neocnemodon larusi* (Vujić, 1999)= *fulvimanus* auct. nec (Zetterstedt, 1843)*Neocnemodon latitarsis* (Egger, 1865)*Neocnemodon pubescens* (Delucchi & Pschorn-Walcher, 1955)*Neocnemodon verrucula* (Collin, 1931)*Neocnemodon vitripennis* (Meigen, 1822)**PIPIZA** Fallén, 1810*Pipiza accola* Violovitsh, 1985*Pipiza austriaca* Meigen, 1822*Pipiza fasciata* Meigen, 1822*Pipiza festiva* Meigen, 1822*Pipiza lugubris* (Fabricius, 1775)*Pipiza luteitarsis* Zetterstedt, 1843*Pipiza noctiluca* (Linnaeus, 1758)*Pipiza notata* Meigen, 1822= *bimaculata* Meigen, 1822

Pipiza quadrimaculata (Panzer, 1804)

PIPIZELLA Rondani, 1856

Pipizella certa Violovitsh, 1981

= *brevis* auct. nec Lucas, 1976

Pipizella obscura Van Steenis & Lucas, 2011

Pipizella viduata (Linnaeus, 1758)

= *virens* misid.

TRICHOPSOMYIA Williston, 1888

Trichopsomyia flavitarsis (Meigen, 1822)

Trichopsomyia joratensis Goeldlin, 1997

TRIGLYPHUS Loew, 1840

Triglyphus primus Loew, 1840

tribe Sericomyiini Rondani, 1845

SERICOMYIA Meigen, 1803

Sericomyia arctica Schirmer, 1913

Sericomyia jakutica (Stackelberg, 1927)

Sericomyia lappona (Linnaeus, 1758)

Sericomyia nigra Portschinsky, 1872

Sericomyia silentis (Harris, 1776)

tribe Volucellini Newman, 1834

VOLUCELLA Geoffroy, 1762

Volucella bombylans (Linnaeus, 1758)

Volucella inanis (Linnaeus, 1758)

Volucella pellucens (Linnaeus, 1758)

tribe Xylotini Bigot, 1883

BLERA Billberg, 1820

Blera eoa (Stackelberg 1928)

Blera fallax (Linnaeus, 1758)

BRACHYPALPOIDES Hipparia, 1978

Brachypalpoides lentus (Meigen, 1822)

BRACHYPALPUS Macquart, 1834

Brachypalpus laphriformis (Fallén, 1816)

CHALCOSYRPHUS Curran, 1925

Chalcosyrphus jacobsoni (Stackelberg, 1921)

Chalcosyrphus nemorum (Fabricius, 1805)

Chalcosyrphus nigripes (Zetterstedt, 1838)

Chalcosyrphus piger (Fabricius, 1794)

Chalcosyrphus rufipes (Loew, 1873)

Chalcosyrphus valgus (Gmelin, 1790)

= *femoratus* auct. nec Linnaeus, 1758

CRIORHINA Meigen, 1822

Criorhina asilica (Fallén, 1816)

LEJOTA Rondani, 1857

- Lejota ruficornis* (Zetterstedt, 1843)
SPHECOMYIA Latreille, 1829
Sphecomymia vespiformis Gorski, 1852
SPILOMYIA Meigen, 1803
Spilomyia diophthalma (Linnaeus, 1758)
SYRITTA Lepeletier & Serville, 1828
Syrirta pipiens (Linnaeus, 1758)
TEMNOSTOMA Lepeletier & Serville, 1828
Temnostoma angustistriatum Krivosheina, 2002
= *bombylans* auct. nec (Fabricius, 1805)
Temnostoma apiforme (Fabricius, 1794)
Temnostoma carens Gaunitz, 1936
Temnostoma sericomymiaeforme (Portschinsky, 1886)
Temnostoma vespiforme (Linnaeus, 1758)
TROPIDIA Meigen, 1822
Tropidia fasciata Meigen, 1822
Tropidia scita (Harris, 1780)
XYLOTA Meigen, 1822
Xylota caeruleiventris Zetterstedt, 1838
Xylota florum (Fabricius, 1805)
Xylota ignava (Panzer, 1798)
Xylota jakutorum Bagatshanova, 1980
= *caeruleiventris* auct. nec Zetterstedt, 1838
Xylota meigeniana Stackelberg, 1964
Xylota segnis (Linnaeus, 1758)
Xylota suecica (Ringdahl, 1943)
Xylota sylvarum (Linnaeus, 1758)
Xylota tarda Meigen, 1822
Xylota triangularis Zetterstedt, 1838
Xylota xanthocnema Collin, 1939
MICRODONTINAE Rondani, 1845
tribe Microdontini Rondani, 1845
MICRODON Meigen, 1803
Microdon analis (Macquart, 1842)
= *eggeri* Mik, 1897
Microdon miki Doczkal & Schmid, 1999
= *latifrons* auct. nec (Loew, 1856)
Microdon mutabilis (Linnaeus, 1758)

Excluded species

Microdon devius (Linnaeus, 1761) was not found within present borders.

Neoascia annexa (Müller, 1776) was included in the Finnish species list in Fauna Europaea (Speight 2004). Authors have not found any specimens or publications that reliably show *N. annexa* to belong in the Finnish fauna.

Paragus punctulatus (Zetterstedt, 1838) was included in the Finnish species list in Fauna Europaea (Speight 2004). Authors have not found any specimens or publications that reliably show *P. punctulatus* to belong in the Finnish fauna.

Parasyrphus relictus (Zetterstedt, 1838): The status of *P. relictus* is unclear and the type material is lost (Speight 2013). *P. relictus* was excluded from Finnish checklist by Haarto and Kerppola (2007b).

Sphaerophoria sp. B was discovered as a deformed specimen of *Sphaerophoria laurae* Goeldlin, 1989.

Temnostoma meridionale (Krivoshchina & Mamayev, 1962) was included in the Finnish species list in Fauna Europaea (Speight 2004). Authors have not found any specimens or publications that reliably show *T. meridionale* to belong in the Finnish fauna.

Notes

Melanostoma mellinum (Linnaeus, 1758) and *Melanostoma dubium* (Zetterstedt, 1837) form a species complex and it is very doubtful whether present species concepts provide an accurate reflection of the number of *Melanostoma* species (Speight 2013).

Platycheirus modestus Ide, 1926. A previously unpublished record. A new species to the Palearctic. One male was collected in 4.7.2008 from *Obb*: Tornio (leg. I. Kakko).

Dasysyrphus spp. Both *D. venustus* (Meigen, 1822) and *D. hilaris* (Zetterstedt, 1843) are known to contain several species (Haarto and Kerppola 2007a, Bartsch 2009a).

Cheilosia barovskii (Stackelberg, 1930). A previously unpublished record. Five females were collected in 30.5.1937 from *Ta*: Sääksmäki (leg. K.E. Kivirikko) and one female in 20.5.2013 from *N*: Sipoo (leg. T. Järveläinen).

Myolepta nigra (Loew, 1872) was erroneously included in the list of Finnish flies (Hackman 1980) instead of *Helleniola nigra* (Zetterstedt, 1843) = *Chrysosyrphus niger* (Hackman 1982).

The used nomenclature of the species *E. nemorum* (Linnaeus, 1758), *E. arbustorum* (Linnaeus, 1758) and *E. horticola* (De Geer, 1776) follows the proposal in Case 3259 by Chandler et al. (2004) and the usage of these names is confirmed in Opinion 2153 by ICZN (International Commission on Zoological Nomenclature) (2006).

Mallota tricolor Loew, 1871. A previously unpublished record. One male was collected in 4.8.1977 from *Ta*: Hämeenlinna (leg. M. Raekunnas) and another male in 13.6.–6.7.2013 from *Sa*: Joutseno (leg. J. Vilén).

Microdon mutabilis (Linnaeus, 1758) and *Microdon myrmicae* Schönrogge, Barr, Wardlaw, Napper, Gardner, Breen, Elmes & Thomas, 2002 form a species complex the species of which can be separate only by characters of the larvae and the puparia (Bartsch 2009b). In the Finnish checklist *M. mutabilis* represents either of the two species or include both of the species.

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Checklist of the superfamilies Conopoidea, Diopsoidea and Nerioidea of Finland (Insecta, Diptera)

Jere Kahanpää¹, Jens-Hermann Stuke²

1 Finnish Museum of Natural History, Zoology Unit, P.O. Box 17, FI-00014 University of Helsinki, Finland

2 Roter Weg 22, 26789 Leer, Germany

Corresponding author: Jere Kahanpää (jere.kahanpaa@helsinki.fi)

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Abstract

A checklist of the Diptera superfamilies Conopoidea (Conopidae), Nerioidea (Micropezidae, Pseudopomyzidae) and Diopsoidea (Megamerinidae, Psilidae, Strongylophthalmyiidae, Tanypezidae) from Finland is presented. *Myopa vicaria* Walker, 1849 is formally recorded for the first time from the country.

Keywords

Checklist, Finland, Diptera, biodiversity, faunistics

Introduction

Four fly families form the superfamily Nerioidea. Two of them, Micropezidae and Pseudopomyzidae, occur in Finland. Neriids are mostly tropical and cypselomatids (*sensu stricto*) have only been found in the Australasian and Oriental regions. The pseudopomyzids were included in Cypselosomatidae Hendel, 1931 in the previous checklist (Hackman 1980) and are still often included in Cypselosomatidae *sensu lato*. The

Table 1. Number of species by family.

Family	Number of species in			Level of knowledge
	World (Pape et al. 2011)	Europe	Finland	
Conopidae	~796	83	19	good
Nerioidea:				
Micropezidae	573	22	6	average
Pseudopomyzidae	18	1	1	good
Diopsoidea:				
Psilidae	320	47	29	average
Tanypezidae	27 (Lonsdale 2013)	1	1	good
Strongylophthalmyiidae	47 (Lonsdale 2013)	2	2	good
Megamerinidae	15	1	1	good

Finnish micropezid fauna is relatively well known. One or two species of *Cnodacophora* Czerny, 1930 and *Rainieria* Rondani, 1843 could be present but are so far undetected.

Diopsoidea consists of seven to ten families (depending on the source), none particularly species-rich. Only four are found in Finland: Psilidae, Tanypezidae, Strongylophthalmyiidae and Megamerinidae. Tanypezidae and Strongylophthalmyiidae are here treated as separate families following Lonsdale (2013). Megamerinidae has been assigned to several superfamilies, most often Diopsoidea following McAlpine (1989), but also Nerioidea, Sciomyzoidea, and recently Opomyzoidea (Wiegmann et al. 2011). These families have raised no particular interest among Finnish dipterists. The genus *Chamaepsila* Hendel, 1917 in particular needs more attention. It is likely that a few Finnish species remain unrecognised in this genus.

The systematic position of the Conopidae is unclear. It has traditionally been considered basal within Schizophora. Wiegmann et al. (2011) listed Conopidae within Sciomyzoidea while others (see Skevington et al. 2010) place the family near Tephritoidea. Within the family the recent classification of Gibson and Skevington (2013) is followed. The Finnish conopid fauna is now relatively well-understood and few additional species are expected to occur in the country.

The Finnish species of these families were last listed by Hackman (1980).

Checklist part 1: Conopoidea

suborder Brachycera Macquart, 1834
 clade Eremoneura Lameere, 1906
 clade Cyclorrhapha Brauer, 1863
 infraorder Schizophora Becher, 1882
 ? clade Archischiza Enderlein, 1936
 superfamily Conopoidea Latreille, 1802

CONOPIDAE Latreille, 1802

CONOPINAE Latreille, 1802

CONOPS Linnaeus, 1758**sg. Conops** Linnaeus, 1758*Conops quadrifasciatus* De Geer, 1776*Conops strigatus* Wiedemann, 1824*Conops vesicularis* Linnaeus, 1761**PHYSOCEPHALA** Schiner, 1861*Physocephala nigra* (De Geer, 1776)

ZODIONINAE Rondani, 1856

ZODION Latreille, 1796*Zodion cinereum* (Fabricius, 1794)= *notatum* Meigen, 1804

SICINAE Zimina, 1960

SICUS Scopoli, 1763*Sicus ferrugineus* (Linnaeus, 1761)

MYOPINAE Macquart, 1834

MYOPA Fabricius, 1775*Myopa buccata* (Linnaeus, 1758)*Myopa fasciata* Meigen, 1804*Myopa hirsuta* Stuke & Clements, 2008= *strandii* auct. nec Duda, 1940*Myopa occulta* Wiedemann, 1824= *nigrifrons* von Bonsdorff, 1866*Myopa tessellatipennis* Motschulsky, 1859= *polystigma* auct. nec Rondani, 1857*Myopa testacea* (Linnaeus, 1767)*Myopa vicaria* Walker, 1849= *villosa* Ringdahl, 1945= *strandii* Duda, 1940**MYOPOTTA** Zimina, 1969*Myopotta pallipes* (Wiedemann, 1824)**THECOPHORA** Rondani, 1845= **Occemyia** Robineau-Desvoidy, 1853*Thecophora cinerascens* (Meigen, 1804)= *pusilla* (Meigen, 1824)= *atra* misid.*Thecophora distincta* (Wiedemann, 1824)= *melanopa* misid.*Thecophora fulvipes* (Robineau-Desvoidy, 1830)= *sundewalli* (Zetterstedt, 1844)*Thecophora jakutica* Zimina, 1974= *atra* misid.

DALMANNIINAE Hendel, 1916

DALMANNIA Robineau-Desvoidy, 1830

Dalmannia dorsalis (Fabricius, 1794)

= *punctata* misid.

Checklist part 2: Nerioida and Diopsoidea

suborder Brachycera Macquart, 1834

clade Eremoneura Lameere, 1906

clade Cyclorrhapha Brauer, 1863

infraorder Schizophora Becher, 1882

clade Muscaria Enderlein, 1936

parvorder Acalyptratae Macquart, 1835

superfamily Nerioida Westwood, 1840

MICROPEZIDAE Blanchard, 1840

CALOBATINAE Bigot, 1853

CALOBATA Meigen, 1803

Calobata petronella (Linnaeus, 1761)

NERIA Robineau-Desvoidy, 1830

Neria cibaria (Linnaeus, 1761)

Neria commutata (Czerny, 1930)

= *nigricornis* auct. nec Zetterstedt, 1838

Neria ephippium (Fabricius, 1794)

Neria nigricornis (Zetterstedt, 1838)

= *helleni* (Frey, 1918)

= *nitidicollis* (Frey, 1947)

MICROPEZINAE Blanchard, 1840

MICROPEZA Meigen, 1803

Micropeza corrigiolata (Linnaeus, 1767)

PSEUDOPOMYZIDAE McAlpine, 1966

PSEUDOPOMYZA Strobl, 1893

Pseudopomyza atrimana (Meigen, 1830)

superfamily Diopsoidea Billberg, 1820

MEGAMERINIDAE Hendel, 1913

MEGAMERINA Rondani, 1861

= *Lissa* Meigen, 1826 preocc.

Megamerina dolium (Fabricius, 1805)

= *loxocerina* (Fallén, 1820)

PSILIDAE Macquart, 1835

CHYLIZINAE Rondani, 1856

CHYLIZA Fallén, 1820**sg. Chyliza** Fallén, 1820*Chyliza annulipes* Macquart, 1835= *fuscipennis* auct. nec Robineau-Desvoidy, 1830*Chyliza leptogaster* (Panzer, 1798)= *scutellata* (Fabricius, 1798)*Chyliza nova* Collin, 1944*Chyliza vittata* Meigen, 1826

PSILINAE Macquart, 1835

tribe Loxocerini Macquart, 1835

IMANTIMYIA Frey, 1925*Imantimyia albisetata* (Schrank, 1803)= *ichneumonea* (Linnaeus, 1758) nom. dubium (see Notes)*Imantimyia fulviventris* (Meigen, 1826)*Imantimyia nigrifrons* (Macquart, 1835)*Imantimyia sylvatica* (Meigen, 1826)**LOXOCERA** Meigen, 1803**sg. LOXOCERA** Meigen, 1803*Loxocera aristata* (Panzer, 1801)= *ichneumonea* (Linnaeus, 1758) nom. dubium (see Notes)

tribe Psilini Macquart, 1835

CHAMAEPSILA Hendel, 1917= **Tetrapsila** Frey, 1925*Chamaepsila atra* (Meigen, 1826)*Chamaepsila bicolor* (Meigen, 1826)= *nigromaculata* (Strobl, 1909)*Chamaepsila buccata* (Fallén, 1826)= *gracilis* (Meigen, 1826)*Chamaepsila humeralis* (Zetterstedt, 1847)*Chamaepsila limbatella* (Zetterstedt, 1847)*Chamaepsila morio* (Zetterstedt, 1835)*Chamaepsila nigra* (Fallén, 1820)*Chamaepsila nigricornis* (Meigen, 1826)*Chamaepsila nigrosetosa* Frey, 1925*Chamaepsila obscuritarsis* (Loew, 1856)*Chamaepsila pallida* (Fallén, 1820)*Chamaepsila pectoralis* (Meigen, 1826)*Chamaepsila rosae* (Fabricius, 1794)*Chamaepsila rufa* (Meigen, 1826)*Chamaepsila unilineata* (Zetterstedt, 1847)**PSILA** Meigen, 1803

sg. FREYOPSILA Shatalkin, 1986

Psila sibirica (Frey, 1925)

sg. PSILA Meigen, 1803

Psila fimetaria (Linnaeus, 1761)

Psila merdaria Collin, 1944

PSILOSOMA Zetterstedt, 1860

Psilosoma audouini (Zetterstedt, 1835)

Psilosoma lefebvrei (Zetterstedt, 1835)

STRONGYLOPHTHALMYIIDAE Hendel, 1917

STRONGYLOPHTHALMYIA Heller, 1902

Strongylophthalmyia pictipes Frey, 1935

Strongylophthalmyia ustulata (Zetterstedt, 1847)

TANYPEZIDAE Rondani, 1856

TANYPEZA Fallén, 1820

Tanypeza longimana Fallén, 1820

Excluded species

Dalmannia punctata (Fabricius, 1794) not found within present borders.

Notes

Chamaepsila unilineata (Zetterstedt, 1847) and *C. nigrosetosa* Frey, 1925 were synonymized with *C. pallida* but they have recently been reinstated as valid species (Shatalkin and Merz 2010).

Loxocera ichneumonea (Linnaeus, 1758). This name has been used for *L. aristata* (Panzer) and *L. albisetata* (Schrank). Unfortunately no type material is known. Linné's original description is insufficient and may in fact belong to a hoverfly (see Buck and Marshall 2006).

Myopa vicaria Walker, 1849. One of the common *Myopa* species through Finland, but previously unreported due to difficulties in identification. Recorded from provinces *Ab, N, Ka, St, Ta, Sa, Kl, Om, Ok, Lkoc* and *Li*.

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Checklist of the Diptera superfamilies Tephritoidea and Sciomyzoidea of Finland (Insecta)

Jere Kahanpää¹, Kaj Winqvist²

¹ *Finnish Museum of Natural History, Zoology Unit, P.O. Box 17, FI-00014 University of Helsinki, Finland*

² *Mikonkatu 3 C 52, FI-20100 Turku, Finland*

Corresponding author: *Jere Kahanpää* (jere.kahanpaa@helsinki.fi)

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Abstract

A revised checklist of the flies of superfamilies Tephritoidea and Sciomyzoidea of Finland is provided. The following families are covered: Eurygnathomyiidae, Lonchaeidae, Neottiophilidae, Pallopteridae, Piophilidae, Platystomatidae, Tephritidae, Ulidiidae (Tephritoidea); Coelopidae, Dryomyzidae, Heterocheilidae, Phaeomyiidae, Sciomyzidae, Sepsidae (Sciomyzoidea).

Keywords

Finland, Diptera, checklist, Tephritoidea, Sciomyzoidea

Introduction

With over 7800 known extant species (Pape et al. 2011), Tephritoidea is one of the larger Diptera superfamilies. The nominotypical family of Tephritoidea, the fruit flies (Tephritidae), includes over half of the currently known species in the superfamily. The highest diversity of tephritoids occurs in the tropics. Six of the nine extant tephritoid families have been found in Finland: no richardiid, ctenostylid or pyrgotid have been found in the country. The Tephritidae, Ulidiidae and Platystomatidae (plus Pyrgotidae) form a well-defined, probably monophyletic group. The other tephritoid families are more basal in their phylogenetic position (Korneyev 1999). The exact relationships

Table 1. Number of species in tephritoid and sciomyzoid families.

Family	Number of species in			Level of knowledge
	World (Pape et al. 2011)	Europe (Pape and Beuk 2013)	Finland	
Tephritoidea:				
Eurygnathomyiidae	1	1	1	good
Lonchaeidae	504	96	41–44	average
Neottiophilidae	4	2	2	average
Pallopteridae	70	22	13	good
Piophilidae	78	27	15	average
Platystomatidae	1162	21	2	good
Tephritidae	4712	267	69	average–good
Ulidiidae	675	106	16	good
Sciomyzoidea:				
Coelopidae	35	3	1	average
Dryomyzidae	22	5	5	average
Heterocheilidae	2	1	1	average
Phacomyiidae	3	3	2	good
Sciomyzidae	605	136	73–74	good
Sepsidae	340	48	32	good

between the families are far from settled and some authors exclude Pallopteridae and Eurygnathomyiidae from the superfamily (Wiegmann et al. 2011). Several subfamily schemes have been proposed for Tephritidae. The classification by Korneyev (2000) is adopted here. For Pallopteridae, Piophilidae (with Neottiophilidae) and Ulidiidae we follow McAlpine (1981), Ozerov (2005) and Kameneva and Korneyev (2006) respectively. Norrbom et al. (1999) provide a catalogue of world tephritid names. The Finnish tephritoid flies were last listed by Winqvist and Kahanpää (2007). Hackman (1956) reviewed the Lonchaeidae of Eastern Fennoscandia. This paper is now somewhat outdated, but still valuable.

Sciomyzoidea is a smaller superfamily with some 1150 described species (Pape et al. 2011). It includes two medium-sized families (Sciomyzidae and Sepsidae) and nine smaller families comprising at most 30 species. The millipede parasitoids of family Phacomyiidae are sometimes classified as a subfamily of Sciomyzidae. The coelopids and heterocheilids, with just one species each in Finland, are closely associated with stranded marine seaweed. The family placement of *Heterocheila* has been rather unstable: during the last 40 years it has been placed in Helcomyzidae, Dryomyzidae and Coelopidae or regarded as having a separate family status. Here we follow the recent world catalogue (Mathis 2011) and keep Heterocheilidae as a separate family. The family name Heterocheilidae is preoccupied by Heterocheilidae Railliet & Henry, 1915 in Nematoda (Mathis 2011). This homonymy has not yet been resolved.

World catalogues have recently been published for Coelopidae (Mathis and McAlpine 2011) Dryomyzidae (Mathis and Sueyoshi 2011), Heterocheilidae (Mathis 2011), Sciomyzidae (Rozkošný 1995) and Sepsidae (Ozerov 2005). The Finnish sciomyzoid flies were last listed by Winqvist and Kahanpää (2007).

Checklist part I: Tephritoidea

suborder Brachycera Macquart, 1834
clade Eremoneura Lameere, 1906
clade Cyclorrhapha Brauer, 1863
infraorder Schizophora Becher, 1882
clade Muscaria Enderlein, 1936
parvorder Acalyptratae Macquart, 1835
superfamily Tephritoidea Newman, 1834

EURYGNATHOMYIIDAE Czerny, 1934

EURYGNATHOMYIA Czerny, 1904

Eurygnathomyia bicolor (Zetterstedt, 1837)

LONCHAEIDAE Rondani, 1856

DASIOPINAE Morge, 1963

Dasiopini Morge, 1963

DASIOPS Rondani, 1856

Dasiops appendiculus Morge, 1959

Dasiops facialis Collin, 1953

Dasiops mucronatus Morge, 1959

= *hennigi* misid.

= *latiterebra* misid.

Dasiops occultus Collin, 1953

= *albiceps* (Frey, 1930) preocc.

Dasiops perpropinquus Morge, 1959

Dasiops spatiosus (Becker, 1895)

Dasiops trichosternalis Morge, 1959

EAROMYIINAE Morge, 1963

CHAETOLONCHAEA Czerny, 1934

Chaetolonchaea pallipennis (Zetterstedt, 1855)

= *dasyops* misid.

EAROMYIA Zetterstedt, 1842

Earomyia lonchaeoides Zetterstedt, 1848

Earomyia schistopyga Collin, 1953

Earomyia viridana (Meigen, 1826)

PROTEAROMYIA McAlpine, 1962

Protearomyia nigra (Meigen, 1826)

LONCHAEINAE Rondani, 1856

Lonchaeini Rondani, 1856

LONCHAEA Fallén, 1820

Lonchaea affinis Malloch, 1920

= *laxa* auct. nec Collin, 1953

- Lonchaea albigena* Collin, 1953
Lonchaea albitarsis Zetterstedt, 1838
? *Lonchaea bruggeri* Morge, 1967
Lonchaea bukowskii Czerny, 1934
Lonchaea caledonica MacGowan & Rotheray, 2000
= *laticornis* auct. nec Meigen, 1826
Lonchaea carpathica Kovalev, 1974
Lonchaea chorea (Fabricius, 1781)
Lonchaea collini Hackman, 1956
? *Lonchaea contigua* Collin, 1953
Lonchaea corusca Czerny, 1934
= *alni* Ringdahl, 1947
= *lauta* Collin, 1953
= *britteni* Collin, 1953
Lonchaea defecta McAlpine, 1964
Lonchaea deutschii Zetterstedt, 1838
= *sarekensis* Frey, 1916
? *Lonchaea difficilis* Hackman, 1956
Lonchaea fraxina MacGowan & Rotheray, 2000
Lonchaea freyi Czerny, 1934
Lonchaea fugax Becker, 1895
= *cariicola* Czerny, 1934
Lonchaea hackmani Kovalev, 1981
= *peregrina* auct. nec Becker, 1895
Lonchaea ipsiphaga McAlpine, 1964
= *maniola* misid.
Lonchaea limatula Collin, 1953
= *flavidipennis* auct. nec Zetterstedt, 1847
Lonchaea nitens (Bigot, 1885)
= *krogerusi* Czerny, 1934
Lonchaea palposa Zetterstedt, 1847
Lonchaea patens Collin, 1953
Lonchaea ragnari Hackman, 1956
Lonchaea scutellaris Rondani, 1874
Lonchaea sororcula Hackman, 1956
Lonchaea stackelbergi Czerny, 1934
Lonchaea subneatosia Kovalenko, 1974
Lonchaea sylvatica Beling, 1873
= *lucidiventris* Becker, 1895
Lonchaea tarsata Fallen, 1820
Lonchaea ultima Collin, 1953
Lonchaea zetterstedti Becker, 1902

NEOTTIOPHILIDAE Hendel, 1916

ACTENOPTERA Czerny, 1904

Actenoptera hilarella (Zetterstedt, 1847)

NEOTTIOPHILUM Frauenfeld, 1868

Neottiophilum praeustum (Meigen, 1826)

PALLOPTERIDAE Loew, 1862

PALLOPTERA Fallén, 1820

Palloptera anderssoni Rotheray & MacGowan, 1999

Palloptera formosa Frey, 1930

Palloptera marginata (Meigen, 1826)

= *costalis* Loew, 1873

Palloptera umbellatarum (Fabricius, 1775)

= *arcuata* auct. nec (Fabricius, 1781)

Palloptera ustulata Fallén, 1820

TEMNOSIRA Enderlein, 1936

Temnosira ambusta (Meigen, 1826)

Temnosira saltuum (Linnaeus, 1758)

TOXONEURA Macquart, 1835

Toxoneura ephippium (Zetterstedt, 1860)

Toxoneura laetabilis (Loew, 1873)

Toxoneura modesta (Meigen, 1830)

= *umbellatarum* auct. nec (Fabricius, 1775)

Toxoneura trimacula (Meigen, 1826)

Toxoneura usta (Meigen, 1826)

Toxoneura venusta (Loew, 1858)

= *atriventris* (Ringdahl, 1947)

PIOPHILIDAE Macquart, 1835

PIOPHILINAE Macquart, 1835

ALLOPIOPHILA Hendel, 1917

= *Arctopiophila* Duda, 1924

= *Boreopiophila* Frey, 1930

= *Parapiophila* McAlpine, 1977

Allopiophila calceata (Duda, 1924)

Allopiophila flavipes (Zetterstedt, 1847)

Allopiophila lonchaeoides (Zetterstedt, 1838)

Allopiophila luteata (Haliday, 1833)

Allopiophila pectiniventris (Duda, 1924)

Allopiophila tomentosa Frey, 1930

Allopiophila vulgaris (Fallén, 1820)

Allopiophila sp. A

AMPHIPOGON Wahlberg, 1845*Amphipogon flavus* (Zetterstedt, 1838)= *spectrum* Wahlberg, 1845**MYCETAULUS** Loew, 1845*Mycetaulus bipunctatus* (Fallén, 1823)**PIOPHILA** Fallén, 1810*Piophila casei* (Linnaeus, 1758)**PROCHYLIZA** Walker, 1849= ***Liopiophila*** Duda, 1924*Prochyliza nigrimana* (Meigen, 1826)*Prochyliza varipes* (Meigen, 1830)= *lundbecki* misid.**PSEUDOSEPS** Becker, 1902*Pseudoseps signata* (Fallén, 1820)**STEARIBIA** Lioy, 1864*Stearibia nigriceps* (Meigen, 1826)= *foveolata* (Meigen, 1826)= *coerulescens* (Zetterstedt, 1847)**PLATYSTOMATIDAE** Schiner, 1862**PLATYSTOMA** Meigen, 1803*Platystoma seminationis* (Fabricius, 1775)**RIVELLIA** Robineau-Desvoidy, 1830*Rivellia syngenesiae* (Fabricius, 1781)**TEPHRITIDAE** Newman, 1834TRYPETINAE Loew, 1861 *sensu lato*

Adramini Hendel, 1914

EUPHRANTA Loew, 1862**sg. *Euphranta*** Loew, 1862*Euphranta connexa* (Fabricius, 1794)**sg. *Rhacochlaena*** Loew, 1862*Euphranta toxoneura* (Loew, 1846)

Trypetini Loew, 1861

ACIDIA Robineau-Desvoidy, 1830*Acidia cognata* (Wiedemann, 1817)**ANOMOIA** Walker, 1835= ***Phagocarpus*** Rondani, 1870*Anomoia purmunda* (Harris, 1776)**CHETOSTOMA** Rondani, 1856*Chetostoma stackelbergi* (Rohdendorf, 1955)**CORNUTRYPETA** Han, Wang & Kim, 1993*Cornutrypeta spinifrons* (Schroeder, 1913)

Cornutrypeta superciliata (Frey, 1935)

EULEIA Walker, 1835

= **Cryptaciura** Hendel, 1927

Euleia heraclei (Linnaeus, 1758)

Euleia rotundiventris (Fallén, 1814)

MYOLEJA Rondani, 1856

Myoleja lucida (Fallén, 1826)

PHILOPHYLLA Rondani, 1870

Philophylla caesio (Harris, 1776)

RHAGOLETIS Loew, 1862

Rhagoletis alternata (Fallén, 1814)

Rhagoletis cerasi (Linnaeus, 1758)

Rhagoletis meigenii (Loew, 1844)

TRYPETA Meigen, 1803

Trypeta artemisiae (Fabricius, 1794)

Trypeta immaculata (Macquart, 1835)

= *hamifera* Loew, 1846

Trypeta zoe Meigen, 1826

TEPHRITINAE Newman, 1834

Terellini Hendel, 1927

CHAETORELLIA Hendel, 1927

Chaetorellia jaceae (Robineau-Desvoidy, 1830)

CHAETOSTOMELLA Hendel, 1927

Chaetostomella cylindrica (Robineau-Desvoidy, 1830)

= *onotrophes* (Loew, 1848)

ORELLIA Robineau-Desvoidy, 1830

Orellia falcata (Scopoli, 1763)

TERELLIA Robineau-Desvoidy, 1830

sg. Cerajocera Rondani, 1856

Terellia ceratocera (Hendel, 1913)

Terellia plagiata (Dahlbom, 1850)

Terellia tussilaginis (Fabricius, 1775)

sg. Terellia Robineau-Desvoidy, 1830

Terellia colon (Meigen, 1826)

Terellia ruficauda (Fabricius, 1794)

Terellia serratulae (Linnaeus, 1758)

Terellia winthemi (Meigen, 1826)

Xyphosiini Hendel, 1927

XYPHOSIA Robineau-Desvoidy, 1830

Xyphosia miliaria (Schrank, 1781)

Noetini Norrbom & Korneyev, 1999

ENSINA Robineau-Desvoidy, 1830

Ensina sonchi (Linnaeus, 1767)

NOETA Robineau-Desvoidy, 1830

= **Oplocheta** Rondani, 1856

Noeta pupillata (Fallén, 1814)

Myopitini Bezzi, 1910

EURASIMONA Korneyev & White, 1991

Eurasimona stigma (Loew, 1840)

UROPHORA Robineau-Desvoidy, 1830

Urophora aprica (Fallén, 1820)

Urophora cardui (Linnaeus, 1758)

Urophora cuspidata (Meigen, 1826)

Urophora jaceana (Hering, 1935)

Urophora solstitialis (Linnaeus, 1758)

= *sonderupi* (Hering, 1940)

Urophora stylata (Fabricius, 1775)

Dithrycini Hendel, 1927

DITHRYCA Rondani, 1856

Dithryca guttularis (Meigen, 1826)

Eutretini Munro, 1952

XANTHOMYIA Phillips, 1923

= **Paracarpotricha** Hendel, 1927

Xanthomyia alpestris (Pokorný, 1887)

= *pseudoradiata* (Becker, 1900)

Tephritini Newman, 1834

CAMPIGLOSSA Rondani, 1870

Campiglossa absinthii (Fabricius, 1805)

= *parvula* (Loew, 1862)

Campiglossa argyrocephala (Loew, 1844)

Campiglossa difficilis (Hendel, 1927)

= *tessellata* misid.

Campiglossa grandinata (Rondani, 1870)

= *borealis* Portschinsky, 1875

Campiglossa guttella (Rondani, 1870)

= *achyrophori* misid.

= *producta* misid.

Campiglossa loewiana (Hendel, 1927)

Campiglossa plantaginis (Haliday, 1833)

Campiglossa punctella (Fallén, 1814)

Campiglossa solidaginis (White, 1986)

Campiglossa sp. A

DIOXYNA Frey, 1945

Dioxyyna bidentis (Robineau-Desvoidy, 1830)

= *sororcula* auct. nec (Wiedemann, 1830)

HERINGINA Aczél, 1940

Heringina guttata (Fallén, 1814)

OXYNA Robineau-Desvoidy, 1830

Oxyna flavipennis (Loew, 1844)

Oxyna nebulosa (Wiedemann, 1817)

Oxyna parietina (Linnaeus, 1758)

SPHENELLA Robineau-Desvoidy, 1830

Sphenella marginata (Fallén, 1814)

TEPHRITIS Latreille, 1804

Tephritis angustipennis (Loew, 1844)

Tephritis bardanae (Schrank, 1803)

Tephritis cometa (Loew, 1840)

Tephritis conura (Loew, 1844)

Tephritis dilacerata (Loew, 1846)

Tephritis fallax (Loew, 1844)

Tephritis hyoscyami (Linnaeus, 1758)

Tephritis leontodontis (De Geer, 1776)

Tephritis mutabilis Merz, 1992

Tephritis neesii (Meigen, 1830)

= *neesii* misspelling

Tephritis ruralis (Loew, 1844)

Tephritis sp. cf. *rydeni* Hering, 1956

= *dioscurea* misid.

TRUPANEA Schrank, 1795

Trupanea stellata (Fuessly, 1775)

Unplaced in Tephritinae (*incertae sedis*)

ACINIA Robineau-Desvoidy, 1830

Acinia corniculata (Zetterstedt, 1819)

ULIDIIDAE Macquart, 1835

OTITINAE Aldrich, 1932

Myennidini Kameneva & Korneyev, 2006

PSEUDOTEPHRITIS Johnson, 1802

Pseudotephritis trypetoptera (Hennig, 1939)

= *corticalis* auct. nec (Loew, 1873)

Otitini Aldrich, 1932

CEROXYS Macquart, 1835

Ceroxys urticae (Linnaeus, 1758)

HERINA Robineau-Desvoidy, 1830

Herina frondescentiae (Linnaeus, 1758)

Herina paludum (Fallén, 1820)

Herina palustris (Meigen, 1826)

MELIERIA Robineau-Desvoidy, 1830

sg. **Melieria** Robineau-Desvoidy, 1830

Melieria crassipennis (Fabricius, 1794)

Melieria omisa (Meigen, 1826)

= *obscuripes* auct. nec (Loew, 1873)

TETANOPS Fallén, 1820

sg. Eurycephalomyia Hendel, 1907

Tetanops sintenisi Becker, 1909

sg. Tetanops Fallén, 1820

Tetanops myopinus Fallén, 1820

ULIDIINAE Macquart, 1835

Seiopterini Kameneva & Korneyev, 1994

HOMALOCEPHALA Zetterstedt, 1838

Homalocephala albitarsis Zetterstedt, 1838

= *bipunctata* (Loew, 1854)

Homalocephala angustata (Wahlberg, 1839)

Homalocephala apicalis (Wahlberg, 1839)

= *biseta* Frey, 1908

Homalocephala bimaculata (Wahlberg, 1839)

Homalocephala biumbrata (Wahlberg, 1838)

= *albitarsis* auct. nec Zetterstedt, 1838

SEIOPTERA Kirby, 1817

Seioptera vibrans (Linnaeus, 1758)

Ulidiini Macquart, 1835

PHYSIPHORA Fallén, 1810

Physiphora alceae (Preyssler, 1791)

= *demandata* (Fabricius, 1798)

Checklist part 2: Sciomyzoidea

suborder Brachycera Macquart, 1834

clade Eremoneura Lameere, 1906

clade Cyclorrhapha Brauer, 1863

infraorder Schizophora Becher, 1882

clade Muscaria Enderlein, 1936

parvorder Acalyptratae Macquart, 1835

superfamily Sciomyzoidea Fallén, 1820

COELOPIDAE Hendel, 1910

COELOPA Meigen, 1830

sg. Fucomyia Haliday, 1838

Coelopa frigida (Fabricius, 1805)

DRYOMYZIDAE Schiner, 1862

DRYOMYZA Fallén, 1820

= **Neuroctena** Rondani, 1868

Dryomyza anilis Fallén, 1820

DRYOPE Robineau-Desvoidy, 1830

Dryope decrepita (Zetterstedt, 1838)

Dryope flaveola (Fabricius, 1794)

PARADRYOMYZA Ozerov, 1987

Paradryomyza spinigera Ozerov, 1987

PSEUDONEUROCTENA Ozerov, 1987

Pseudoneuroctena senilis (Zetterstedt, 1838)

HETEROCHEILIDAE McAlpine, 1991

HETEROCHEILA Rondani, 1857

Heterocheila buccata (Fallén, 1820)

PHAEOMYIIDAE Verbeke, 1950

PELIDNOPTERA Rondani, 1856

Pelidnoptera fuscipennis (Meigen, 1830)

= *fumipennis* (Zetterstedt, 1846)

Pelidnoptera nigripennis (Fabricius, 1794)

SCIOMYZIDAE Fallén, 1820

SCIOMYZINAE Fallén, 1820

Sciomyzini Fallén, 1820

COLOBAEA Zetterstedt, 1837

Colobaea bifasciella (Fallén, 1820)

Colobaea distincta (Meigen, 1830)

Colobaea nigroaristata Rozkošný, 1984

Colobaea pectoralis (Zetterstedt, 1847)

Colobaea punctata (Lundbeck, 1923)

DITAENIELLA Sack, 1939

Ditaeniella grisescens (Meigen, 1830)

HERBELLIA Robineau-Desvoidy, 1830

Pherbellia albocostata (Fallén, 1820)

Pherbellia alpina (Frey, 1930)

Pherbellia argyra Verbeke, 1967

Pherbellia brunripes (Meigen, 1838)

Pherbellia cinerella (Fallén, 1820)

Pherbellia dubia (Fallén, 1820)

Pherbellia goberti (Pandellé, 1902)

= *stylifera* Rozkošný, 1982

Pherbellia griseicollis (Becker, 1900)

= *lapponica* (Ringdahl, 1948)

Pherbellia griseola (Fallén, 1820)

Pherbellia hackmani Rozkošný, 1982

Pherbellia nana (Fallén, 1820)

Pherbellia obscura (Ringdahl, 1948)

Pherbellia obtusa (Fallén, 1820)

Pherbellia pallidiventris (Fallén, 1820)

Pherbellia rozkosnyi Verbeke, 1967

= *scutellaris* misid.

Pherbellia schoenherri (Fallén, 1826)

Pherbellia sordida (Hendel, 1902)

Pherbellia stackelbergi Elberg, 1965

Pherbellia ventralis (Fallén, 1820)

PTEROMICRA Lioy, 1864

Pteromicra angustipennis (Staeger, 1845)

Pteromicra glabricula (Fallén, 1820)

Pteromicra leucopeza (Meigen, 1838)

Pteromicra oldenbergi (Hendel, 1902)

Pteromicra pectorosa (Hendel, 1902)

SCIOMYZA Fallén, 1820

Sciomyza dryomyzina Zetterstedt, 1846

Sciomyza sebezihica Przhiboro, 2001

Sciomyza simplex Fallén, 1820

TETANURA Fallén, 1820

Tetanura pallidiventris Fallén, 1820

Tetanocerini Newman, 1834

ANTICHETA Haliday, 1839

Anticheta analis (Meigen, 1830)

Anticheta atriseta (Loew, 1849)

Anticheta brevipennis (Zetterstedt, 1846)

Anticheta nigra Karl, 1921

= *nigroaenea* Frey, 1935

COREMACERA Rondani, 1856

Coremacera marginata (Fabricius, 1775)

= *tristis* (Harris, 1780) preocc.

DICHETOPHORA Rondani, 1868

Dichetophora finlandica Verbeke, 1964

DICTYA Meigen, 1803

Dictya umbrarum (Linnaeus, 1758)

ECTINOCERA Zetterstedt, 1838

Ectinocera borealis Zetterstedt, 1838

ELGIVA Meigen, 1838

Elgiva cucularia (Linnaeus, 1767)

Elgiva divisa (Loew, 1845)

- Elgiva solicita* (Harris, 1780)
 = *sundewalli* Kloet & Hincks, 1945
- EUTHYCERA** Latreille, 1829
Euthycera chaerophylli (Fabricius, 1798)
Euthycera fumigata (Scopoli, 1763)
- HYDROMYA** Robineau-Desvoidy, 1830
Hydromya dorsalis (Fabricius, 1775)
- ILIONE** Haliday in Curtis, 1837
 = *Tumidicerus* Knutson & Berg, 1967
- sg. Ilione** Haliday in Curtis, 1837
Ilione lineata (Fallén, 1820)
- sg. Knutsonia** Verbeke, 1964
Ilione albisetata (Scopoli, 1763)
- LIMNIA** Robineau-Desvoidy, 1830
Limnia paludicola Elberg, 1965
Limnia unguicornis (Scopoli, 1763)
- PHERBINA** Robineau-Desvoidy, 1830
Pherbina coryleti (Scopoli, 1763)
- PSACADINA** Enderlein, 1939
Psacadina zernyi (Mayer, 1953)
 = *punctata* misid.
- RENOCERA** Hendel, 1900
Renocera pallida (Fallén, 1820)
Renocera striata (Meigen, 1830)
Renocera stroblii Hendel, 1900
 = *fuscinervis* auct. nec (Zetterstedt, 1838)
- SEPEDON** Latreille, 1804
sg. Sepedon Latreille, 1804
Sepedon sphegea (Fabricius, 1775)
Sepedon spinipes (Scopoli, 1763)
- TETANOCERA** Duméril, 1800
sg. Chaetotetanocera Mayer, 1953
Tetanocera robusta Loew, 1847
- sg. Tetanocera** Duméril, 1800
 ? *Tetanocera amurensis* Hendel, 1909
Tetanocera arrogans Meigen, 1830
Tetanocera elata (Fabricius, 1781)
Tetanocera ferruginea Fallén, 1820
 = *brunnipennis* Frey, 1924
Tetanocera freyi Stackelberg, 1963
Tetanocera fuscinervis (Zetterstedt, 1838)
 = *unicolor* Loew, 1847
Tetanocera hyalipennis von Roser, 1840

Tetanocera kerteszi Hendel, 1901

= *griseicollis* Frey, 1924

= *ornatifrons* Frey, 1924

Tetanocera lapponica Frey, 1924

Tetanocera latifibula Frey, 1924

Tetanocera montana Day, 1881

= *borealis* Frey, 1924

Tetanocera phyllophora Melander, 1920

= *nigricosta* misid.

Tetanocera silvatica Meigen, 1830

TRYPETOPTERA Hendel, 1900

Trypetoptera punctulata (Scopoli, 1763)

SEPSIDAE Walker, 1833

ORYGMATINAE Frey, 1921

ORTALISCHEMA Frey, 1925

Ortalischema albitarse (Zetterstedt, 1847)

SEPSINAE Walker, 1833

THEMIRA Robineau-Desvoidy, 1830

Themira annulipes (Meigen, 1826)

Themira arctica (Becker, 1915)

Themira biloba Andersson, 1975

Themira germanica Duda, 1926

Themira gracilis (Zetterstedt, 1847)

Themira leachi (Meigen, 1826)

Themira lucida (Staeger, 1844)

Themira malformans Melander & Spuler, 1917

Themira minor (Haliday, 1833)

Themira nigricornis (Meigen, 1826)

Themira paludosa Elberg, 1963

Themira pusilla (Zetterstedt, 1847)

Themira putris (Linnaeus, 1758)

Themira superba (Haliday, 1833)

SALTELLA Robineau-Desvoidy, 1830

Saltella sphondylii (Schrank, 1803)

NEMOPODA Robineau-Desvoidy, 1830

Nemopoda nitidula (Fallén, 1820)

= *cylindrica* (Fabricius, 1794) preocc.

Nemopoda pectinulata Loew, 1873

Nemopoda speiseri (Duda, 1926)

MEROPLIUS Rondani, 1874

Meroplus fukuharai (Iwasa, 1984)

Meroplus minutus (Wiedemann, 1830)

= *stercorarius* (Robineau-Desvoidy, 1830)

SEPSIS Fallén, 1810

Sepsis biflexuosa Strobl, 1893

Sepsis cynipsea (Linnaeus, 1758)

Sepsis duplicata Haliday, 1838

= *pilipes* van der Wulp, 1871

Sepsis flavimana Meigen, 1826

= *borealis* Frey, 1825

Sepsis fulgens Meigen, 1826

= *communis* Frey, 1925

Sepsis luteipes Melander & Spuler, 1917

= *lamellifera* Frey, 1925

Sepsis nigripes Meigen, 1826

Sepsis orthocnemis Frey, 1908

Sepsis punctum (Fabricius, 1794)

= *luteipes* misid.

Sepsis thoracica (Robineau-Desvoidy, 1830)

Sepsis violacea Meigen, 1826

Excluded species

Allopiophila dudai (Frey, 1930) not found within present borders

Bactrocera sp. imported with fruit

Campiglossa irrorata (Fallén, 1814) not found within present borders

Ceratitidis capitata (Wiedemann, 1824) imported with fruit

Earomyia crystallophila (Becker, 1895) not found within present borders

= *nigroviolacea* (Frey in Lundström & Frey, 1913)

Lonchaea hirticeps Zetterstedt, 1838 misidentified

Orygma luctuosum Meigen, 1830 not found within present borders

Pherbellia dorsata (Zetterstedt, 1846) misidentified

Tephritis nigricauda (Loew, 1856) misidentified

Notes

***Allopiophila dudai* (Frey, 1930).** This species was described by Frey (1930) from the Kola peninsula (Murmansk Oblast, Russia). Frey et al. (1941) and Hackman (1980) listed it from Finland, but to our knowledge it has never been reliably recorded from this country.

***Allopiophila* sp. A.** An apparently undescribed arctic species near *A. vulgaris*.

***Campiglossa* sp. A** is a distinct, possibly undescribed species of *Campiglossa*. It is common on *Saussurea alpina* in Northern Finland (Juhani Itämies, priv. comm.).

***Lonchaea bruggeri* Morge, 1967, *L. contigua* Collin, 1953 and *L. difficilis* Hackman, 1956.** No males have been confirmed from the country. See Winqvist and Kahanpää (2007) for more details.

***Lonchaea bukowskii* Czerny, 1934.** No males have been confirmed from the country. ***Tephritis* sp. cf. *rydeni* Hering, 1956.** Finnish material formerly assigned to *T. dioscurea* (Loew, 1856) belongs to a currently unrecognised species that may be *T. rydeni* Hering (Söderman et al. 2007, Winqvist and Kahanpää 2007).

***Tetanocera amurensis* Hendel, 1909.** Recorded from Finland in Fauna Europaea (Rozkošný and Knutson 2011) and known from Estonia and Northwestern European Russia (Elberg 1988). We have been unable to find any Finnish material or primary published records.

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Checklist of the fly families Chamaemyiidae and Lauxaniidae of Finland (Insecta, Diptera)

Jere Kahanpää¹

¹ Finnish Museum of Natural History, Zoology Unit, P.O. Box 17, FI-00014 University of Helsinki, Finland

Corresponding author: Jere Kahanpää (jere.kahanpaa@helsinki.fi)

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Abstract

A revised checklist of the Chamaemyiidae and Lauxaniidae (Diptera) recorded from Finland is presented.

Keywords

Checklist, Finland, Diptera, biodiversity, faunistics

Introduction

Three families are currently recognized in Lauxanoidea, two of which are present in Finland. The exception is the beetle flies (Celyphidae), which are restricted to the Oriental and Afrotropical Regions.

The silvery white flies of the family Chamaemyiidae are poorly studied in Finland. Reliable identification of most species is, at least for now, only possible by the examination of male genitalia. Unfortunately many species have not been adequately (re)described which has resulted in much confusion about the proper use of species names. It is likely that several additional chamaemyiid species will be found in Finland. Of the

two subfamilies of chamaemyiids, Cremifaniinae is absent from Finland. Chamaemyiinae is split into two tribes, Chamaemyiini and Leucopini, although the monophyly of the former has not yet been demonstrated (Gaimari 2010).

The lauxaniids are better known both in Finland and worldwide. Additional species are still likely to be found in the country, especially among *Homoneura* and *Sapromyza*. Of the three subfamilies, the Eurychoromyiinae, a strictly Neotropical group (Gaimari and Silva 2010a), is absent from the Palaearctic. The other two subfamilies, Homoneurinae and Lauxaniinae, are both present in Finland. The subfamily Lauxaniinae is probably paraphyletic as currently defined (Gaimari and Silva 2010b).

The Finnish species of these families were last listed by Hackman (1980). Kahanpää (2013) reviewed the changes in the Finnish lauxaniid fauna since 1980.

Number of species (Chamaemyiidae, Lauxaniidae):

World: 336 (S. Gaimari, pers. comm. March 18, 2014), 1895 species (Pape et al. 2011)

Europe: 107, 157 species (Fauna Europaea)

Finland: 27–28, 45 species

Faunistic knowledge level in Finland: poor, average

Checklist

suborder Brachycera Macquart, 1834

clade Eremoneura Lameere, 1906

clade Cyclorrhapha Brauer, 1863

infraorder Schizophora Becher, 1882

clade Muscaria Enderlein, 1936

parvorder Acalyptratae Macquart, 1835

superfamily Lauxanoidea Macquart, 1835

CHAMAEMYIIDAE Hendel, 1910

CHAMAEMYIINAE Hendel, 1910

tribe Chamaemyiini Hendel, 1910

ACROMETOPIA Schiner, 1862

Acrometopia wahlbergi (Zetterstedt, 1846)

CHAMAEMYIA Meigen, 1803

Chamaemyia aestiva Tanasijtshuk, 1970

Chamaemyia aridella (Fallén, 1823)

Chamaemyia elegans (Panzer, 1809)

Chamaemyia emiliae Tanasijtshuk, 1970

Chamaemyia flavipalpis (Haliday, 1838)

Chamaemyia geniculata (Zetterstedt, 1838)

? *Chamaemyia herbarum* (Robineau-Desvoidy, 1830) *sensu* Coe, 1943

Chamaemyia juncorum (Fallén, 1823)

Chamaemyia paludosa Collin, 1966

- Chamaemyia polystigma* (Meigen, 1830)
Chamaemyia sylvatica Collin, 1966
PAROCHTHIPHILA Czerny, 1904
sg. Euestelia Enderlein, 1927
Parochthiphila coronata (Loew, 1858)
sg. Parochthiphila Czerny, 1904
Parochthiphila spectabilis (Loew, 1858)
 tribe Lecopini Hendel, 1928
ANCHIOLEUCOPIS Tanasijtshuk 1997
Anchioleucopis geniculata (Zetterstedt, 1855)
LEUCOPIS Meigen, 1830
Leucopis annulipes Zetterstedt, 1848
Leucopis argentata Heeger, 1848
 = *concordata* McAlpine & Tanasijtshuk, 1972
 = *argenticollis* auct. nec Zetterstedt, 1848
Leucopis atritarsis Tanasijtshuk, 1958
Leucopis glyphinivora Tanasijtshuk, 1958
Leucopis griseola (Fallén, 1823)
Leucopis sorbi Tanasijtshuk, 1986
Leucopis sp. cf. *szepligetii* Aczel, 1937
NEOLEUCOPIS Malloch, 1921
Neoleucopis atratula (Ratzeburg, 1844)
Neoleucopis freyi (McAlpine, 1971)
Neoleucopis obscura (Haliday, 1833)
Neoleucopis orbiseta (McAlpine, 1971)
LEUCOPOMYIA Malloch, 1921
Leucopomyia silesiaca (Egger, 1862)
 = *alticeps* misid.
LIPOLEUCOPIS de Meijere, 1928
Lipoleucopis praecox de Meijere, 1928

- LAUXANIIDAE** Macquart, 1835
HOMONEURINAE Stuckenberg, 1971
HOMONEURA van der Wulp, 1891
Homoneura biumbrata (Loew, 1873)
 = *tesquae* misid.
Homoneura lamellata (Becker, 1895)
Homoneura mediospinosa Merz, 2003
 = *interstincta* auct. nec (Fallén, 1820)
Homoneura tenera (Loew, 1846)
LAUXANIINAE Macquart, 1835
AULOGASTROMYIA Hendel, 1925
Aulogastromyia anisodactyla (Loew, 1845)
CALLIOPUM Strand, 1928

Calliopum aeneum (Fallén, 1820)

Calliopum elisae (Meigen, 1826)

= *nitens* auct. nec (Loew, 1858)

CNEMACANTHA Macquart, 1835

Cnemacantha muscaria (Fallén, 1823)

LAUXANIA Latreille, 1804

sg. Czernushka Shatalkin, 2000

Lauxania albomaculata Strobl, 1909

sg. Lauxania Latreille, 1804

Lauxania cylindricornis (Fabricius, 1794)

MEIOSIMYZA Hendel, 1925

= *Lycia* Robineau-Desvoidy, 1830 preocc.

= *Lyciella* Collin, 1948

Meiosimyza affinis (Zetterstedt, 1847)

Meiosimyza decempunctata (Fallén, 1820)

Meiosimyza decipiens (Loew, 1847)

Meiosimyza illota (Loew, 1847)

Meiosimyza laeta (Zetterstedt, 1838)

Meiosimyza platycephala (Loew, 1847)

Meiosimyza rorida (Fallén, 1820)

Meiosimyza subfasciata (Zetterstedt, 1838)

MINETTIA Robineau-Desvoidy, 1830

sg. Frendelia Collin, 1948

Minettia longipennis (Fabricius, 1794)

sg. Minettia Robineau-Desvoidy, 1830

Minettia desmometopa (de Meijere, 1907)

Minettia lupulina (Fabricius, 1787)

sg. Plesiominettia Shatalkin, 2000

Minettia helvola (Becker, 1895)

Minettia loewi (Schiner, 1864)

Minettia filia (Becker, 1895)

sg. unplaced in ?Minettia (see Notes)

Minettia styriaca (Strobl, 1892)

PACHY CERINA Macquart, 1835

Pachycerina pulchra (Loew, 1850)

Pachycerina seticornis (Fallén, 1820)

PEPLOMYZA Haliday, 1837

Peplomyza discoidea (Meigen, 1830)

POECILOLYCIA Shewell, 1986

Poecilolycia vittata (Walker, 1849)

= *quadrivittata* (Loew, 1861)

PSEUDOLYCIELLA Shatalkin, 2000

Pseudolyciella pallidiventris (Fallén, 1820)

- Pseudolyciella stylata* (Papp, 1978)
SAPROMYZA Fallén, 1810
sg. Nannomyza Frey, 1941
Sapromyza basalis Zetterstedt, 1847
sg. Sapromyza Fallén, 1810
Sapromyza albiceps (Fallén, 1820)
Sapromyza amabilis Frey, 1930
Sapromyza apicalis Loew, 1847
 = *obsoleta* misid.
Sapromyza opaca Becker, 1895
 = *imitatrix* Czerny, 1932
 = *leningradensis* misid.
Sapromyza schnabli Papp, 1987
Sapromyza setiventris Zetterstedt, 1847
Sapromyza sexpunctata Meigen, 1826
 = *atechna* Becker, 1895
 = *pellucida* Becker, 1895
Sapromyza simplicior Hendel, 1908
Sapromyza zetterstedti Hendel, 1908
sg. Schumannimyia Papp, 1978
Sapromyza hyalinata (Meigen, 1826)
SAPROMYZOSOMA Lioy, 1864
Sapromyzosoma quadripunctata (Linnaeus, 1767)
TRICHOLAUXANIA Hendel, 1925
Tricholauxania praeusta (Fallén, 1820)
TRIGONOMETOPUS Macquart, 1835
Trigonometopus frontalis (Meigen, 1830)

Excluded species

- Homoneura dilecta* (Rondani, 1868) misidentification
Leucopis impunctata von Roser, 1840 nomen dubium
Leucopis puncticornis Meigen, 1830 nomen dubium
Sapromyza thoracica Becker, 1895 nomen dubium
Neoparocetus signatipes (Loew, 1856) not found within present borders
Sapromyza leningradensis Czerny, 1932 nomen dubium ?

Notes

Several chamaemyiid species mentioned in this checklist have not been previously recorded from Finland. A paper detailing the new records is in preparation.

***Chamaemyia herbarum* (Robineau-Desvoidy, 1830)**. A poorly known species. The name has been widely used for various *Chamaemyia* species in the past. Coe (1943) and Collin (1966) applied this name (without seeing types) to a species which may be *C. subjuncorum* Tanasijtshuk, 1980 (*sensu* Beschovski, 1995). Czerny (1936) and Tanasijtshuk (1986) listed this species as a junior synonym of *Chamaemyia juncorum* (Fallén). Most Finnish specimens under this name are either unidentifiable females or belong to other species, most frequently *C. aestiva* Tanasijtshuk, 1970, but some specimens probably belonging to *C. herbarum* R.-D. *sensu* Coe have been found in Finland.

***Minettia*(?) *styriaca* (Strobl, 1892)**. This species, originally described in *Sapromyza*, has traditionally been placed in *Minettia*. Unfortunately Strobl's description, which was based on a single female, is rather short and unillustrated. The holotype is lost according to Chvála (2008). The Finnish and Russian material in the Finnish Museum of Natural History (MZH) identified as *Minettia styriaca* (see Kahanpää 2013 for data and a photograph) matches Strobl's description, but these specimens lack the postsutural supra-alar setae found in *Minettia* (and many other genera).

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Checklist of the smaller families of Opomyzoidea, Anthomyzidae, Asteiidae, Aulacigastridae, Clusiidae, Odiniidae, Opomyzidae and Periscelididae (Diptera) of Finland

Jere Kahanpää¹

¹ *Finnish Museum of Natural History, Zoology Unit, P.O. Box 17, FI-00014 University of Helsinki, Finland*

Corresponding author: *Jere Kahanpää* (jere.kahanpaa@helsinki.fi)

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Abstract

A species checklist is presented for Finland covering seven smaller families of Opomyzoidea: Anthomyzidae, Asteiidae, Aulacigastridae, Clusiidae, Odiniidae, Opomyzidae and Periscelididae (Diptera).

Keywords

Checklist, Finland, Diptera, biodiversity, faunistics

Introduction

The superfamily Opomyzoidea is likely to be para- or polyphyletic (see Wiegmann et al. 2011). It has long been used as a dumping grounds for acalyptrate taxa that do not fit well elsewhere. As such, the superfamily is poorly defined and hardly any two authors agree on its definition. Opomyzoidea includes one large family (Agromyzidae, the leaf-mining flies, with over 3000 described species) and more than a dozen small families. The exact number of recognized families varies. The Agromyzidae are treated

Table 1. Number of species by family.

Family	Number of species in			Level of knowledge
	World (Pape et al. 2011)	Europe	Finland	
Anthomyzidae	93	28	15	average
Asteiidae	136	18	6	average
Aulacigastridae	18	4	2	good
Clusiidae	360	14	12	good
Odiniidae	64	14	5	average
Opomyzidae	59	33	16	average
Perisclididae	83	6	4	average

elsewhere in this volume of ZooKeys. The remaining opomyzoid families are presented here in alphabetical order.

Hackman (1980) last listed the Finnish species of these families. World catalogues have recently been published for Perisclididae (Mathis and Rung 2011) and Odiniidae (Gaimari and Mathis 2011). For Anthomyzidae the Revision of West Palearctic Anthomyzidae by Roháček (2006, 2009) is followed. Three of the four Palearctic *Aulacigaster* species have been found in Europe (Kassebeer 2001, Rung and Mathis 2011). Papp and Withers (2011) reviewed the Palearctic Perisclidinae and proposed some nomenclatorial changes. Hackman's (1959) review of the Finnish opomyzid fauna is still valuable but several additional species have since been recognized.

Checklist

suborder Brachycera Macquart, 1834
 clade Eremoneura Lameere, 1906
 clade Cyclorrhapha Brauer, 1863
 infraorder Schizophora Becher, 1882
 clade Muscaria Enderlein, 1936
 parvorder Acalyptratae Macquart, 1835
 superfamily Opomyzoidea Fallén, 1820

ANTHOMYZIDAE Czerny, 1903

ANTHOMYZA Fallén, 1810

Anthomyza collini Andersson, 1976

Anthomyza dissors Collin, 1944

Anthomyza elbergi Andersson, 1976

= *sordidella* auct. nec (Zetterstedt, 1848)

Anthomyza gracilis Fallén, 1823

Anthomyza macra Czerny, 1928

Anthomyza pallida (Zetterstedt, 1838)

= *unguicella* (Zetterstedt, 1838)

Anthomyza paraneglecta Elberg, 1968
Anthomyza pleuralis Czerny, 1928
ARGANTHOMYZA Roháček, 2009
Arganthomyza socculata (Zetterstedt, 1847)
 = *ungulata* (Loew, 1873)
CAREXOMYZA Roháček, 2009
Carexomyza caricis (Roháček, 1999)
FUNGOMYZA Roháček, 1999
Fungomyza albimana (Meigen, 1830)
PARANTHOMYZA Czerny, 1902
Paranthomyza nitida (Meigen, 1838)
STIPHROSOMA Czerny, 1928
 = *Ptenotaenia* Enderlein, 1936
Stiphrosoma laetum (Meigen, 1830)
 = *cingulatum* misid.
Stiphrosoma sabulosum (Haliday, 1837)
TYPHAMYZA Roháček, 1992
Typhamyza bifasciata (Wood, 1911)

ASTEIIDAE Rondani, 1856
ASTEIINAE Rondani, 1856
ASTEIA Meigen, 1830
sg. *Asteia* Meigen, 1830
Asteia amoena Meigen, 1830
Asteia concinna Meigen, 1830
Asteia elegantula Zetterstedt, 1847
SIGALOESSINAE Sabrosky, 1956
LEIOMYZA Macquart, 1835
Leiomyza dudai Sabrosky, 1956
Leiomyza laevigata (Meigen, 1830)
Leiomyza scatophagina (Fallén, 1823)

AULACIGASTRIDAE Duda, 1924
AULACIGASTER Macquart, 1835
 = *Aulacogaster* emend.
Aulacigaster leucopeza (Meigen, 1830)
Aulacigaster pappi Kassebeer, 2001

CLUSIIDAE Handlirsch, 1884
CLUSIINAE Handlirsch, 1884
CLUSIA Haliday, 1838
 = *Paraclusia* Czerny, 1903
Clusia flava (Meigen, 1830)

Clusia tigrina (Fallén, 1820)

CLUSIODINAE

CLUSIODES Coquillett, 1904

= *Heteroneura* Fallén, 1823 preocc.

Clusiodes albimanus (Meigen, 1830)

Clusiodes apicalis (Zetterstedt, 1848)

Clusiodes caledonicus (Collin, 1912)

= *gentilis* misid.

Clusiodes freyi Tuomikoski, 1933

Clusiodes geomyzinus (Fallén, 1823)

Clusiodes microcercus Stackelberg, 1955

Clusiodes pictipes (Zetterstedt, 1855)

Clusiodes ruficollis (Meigen, 1830)

Clusiodes verticalis (Collin, 1912)

HENDELIA Czerny, 1903

Hendelia beckeri Czerny, 1903

ODINIIDAE Hendel, 1920

ODINIINAE Hendel, 1920

NEOALTICOMERUS Hendel, 1903

Neoalticomerus formosus (Loew, 1844)

ODINIA Robineau-Desvoidy, 1830

Odinia boletina (Zetterstedt, 1848)

Odinia czernyi Collin, 1952

= *mejerei* misid.

Odinia ornata (Zetterstedt, 1838)

Odinia xanthocera Collin, 1952

OPOMYZIDAE Fallén, 1820

ANOMALOAETA Frey, 1921

Anomaloaeta guttipennis (Zetterstedt, 1838)

GEOMYZA Fallén, 1810

Geomyza angustipennis Zetterstedt, 1847

Geomyza apicalis (Meigen, 1830)

Geomyza consobrina Zetterstedt, 1847

Geomyza hackmani Nartshuk, 1984

= *combinata* auct. nec (Linnaeus, 1767)

= *balachowskyi* misid.

Geomyza majuscula (Loew, 1864)

= *breviforceps* Hackman, 1959

Geomyza martineki Drake, 1992

Geomyza paganettii (Strobl, 1909)

Geomyza pilosula Czerny, 1928

Geomyza tripunctata Fallén, 1823

OPOMYZA Fallén, 1820

Opomyza florum (Fabricius, 1794)

Opomyza germinationis (Linnaeus, 1758)

Opomyza lineatopunctata von Roser, 1840

Opomyza nigriventris Loew, 1865

Opomyza punctata Haliday, 1833

Opomyza punctella Fallén, 1820

PERISCOLIDIDAE Oldenberg, 1914

PERISCOLIDINAE Oldenberg, 1914

MYODRIS Lioy, 1864

= *Microperiscelis* Oldenberg, 1914

Myodris annulata (Fallén, 1813)

PERISCELIS Loew, 1858

Periscelis annulipes Loew, 1858

Periscelis nigra (Zetterstedt, 1860)

Periscelis winnertzii Egger, 1862

Excluded species

Clusiodes gentilis (Collin, 1912) misidentified

Geomyza balachowskyi Mesnil, 1934 misidentified

Odinia mejerei Collin, 1952 misidentified

Notes

Aulacigaster pappi Kassebeer, 2001. Most of the Finnish *Aulacigaster* material belong to this species, including all specimens currently stored in the Finnish Museum on Natural History (MZH). Storå (1956, 1957) and Hackman (1980) misidentified *A. pappi* as *A. leucopeza*. A few Finnish specimens of the real *A. leucopeza* were found in private collections.

Clusiodes gentilis (Collin, 1912). Lonsdale and Marshall (2007) record this species from Finland on a map. The data is apparently taken from Frey (1928). As Tuomikoski (1936) has pointed out, Frey misidentified *C. caledonicus* as *C. gentilis*.

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Checklist of the leaf-mining flies (Diptera, Agromyzidae) of Finland

Jere Kahanpää¹

¹ Finnish Museum of Natural History, Zoology Unit, P.O. Box 17, FI-00014 University of Helsinki, Finland

Corresponding author: Jere Kahanpää (jere.kahanpaa@helsinki.fi)

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Abstract

A checklist of the Agromyzidae (Diptera) recorded from Finland is presented. 279 (or 280) species are currently known from the country. *Phytomyza linguae* Lundqvist, 1947 is recorded as new to Finland.

Keywords

Checklist, Finland, Diptera, biodiversity, faunistics

Introduction

The Agromyzidae are called the leaf-miner or leaf-mining flies and not without reason, although a substantial fraction of the species feed as larvae on other parts of living plants. While Agromyzidae is traditionally placed in the superfamily Opomyzoidea, its exact relationships with other acalyptrate Diptera are poorly understood (see for example Winkler et al. 2010).

Two subfamilies are recognised within the leaf-mining flies: Agromyzinae and Phytomyzinae. Both are now recognised as natural groups (Dempewolf 2005, Scheffer et al. 2007). Unfortunately the genera are not as well defined: at least *Ophiomyia*, *Phytoliriomyza* and *Aulagromyza* are paraphyletic in DNA sequence analyses (see Scheffer et al. 2007). The same studies and Winkler et al. (2009) suggest that *Chromatomyia*

consists of at least two separate groups of species within *Phytomyza*, and *Napomyza* (which is given a status of a subgenus of *Phytomyza* by Winkler et al. (2009)) also needs re-evaluation. For the purposes of this checklist, a conservative approach is adopted with *Chromatomyia* and *Napomyza* as separate genera.

Richard Frey was the first Finnish dipterist to study the agromyzid fauna of the country in detail (Frey 1937, 1946). L. Tiensuu and E. Thuneberg continued Frey's work but most of their work remained unpublished until Nowakowski (1967) and Spencer (1976) reviewed the major Finnish agromyzid collections. Spencer's book remains the primary identification tool for North European Agromyzidae. Interest in Finnish agromyzids has remained sporadic. The Finnish species were last listed by Hackman (1980).

Number of species:

World: 3004 spp. (M. Černý & M. von Tschirnhaus, pers. comm., March 2014)

Europe: 914 species (von Tschirnhaus, pers. comm., March 2014)

Finland: 279–280 species

Faunistic knowledge level in Finland: average

Checklist

suborder Brachycera Macquart, 1834
 clade Eremoneura Lameere, 1906
 clade Cyclorrhapha Brauer, 1863
 infraorder Schizophora Becher, 1882
 clade Muscaria Enderlein, 1936
 parvorder Acalyptratae Macquart, 1835
 superfamily Opomyzoidea Newman, 1834

AGROMYZIDAE Fallén, 1823

AGROMYZINAE Fallén, 1823

AGROMYZA Fallén, 1810

Agromyza abiens Zetterstedt, 1848

Agromyza albipennis Meigen, 1830

Agromyza albitarsis Meigen, 1830

Agromyza alnibetulae Hendel, 1931

Agromyza alnivora Spencer, 1969

Agromyza alunulata (Hendel, 1931)

Agromyza ambigua Fallén, 1823

= *niveipennis* Zetterstedt, 1848

Agromyza anthracina Meigen, 1830

= *freyi* Hendel, 1931

Agromyza bicaudata (Hendel, 1931)

Agromyza cinerascens Macquart, 1835

- Agromyza demeijerei* Hendel, 1920
Agromyza erythrocephala Hendel, 1920
Agromyza flaviceps Fallén, 1823
Agromyza graminicola Hendel, 1931
Agromyza idaeiana Hardy, 1853
 = *potentillae* (Kaltenbach, 1864)
 = *spiraeae* Kaltenbach, 1867
 = *stackelbergi* (Frey, 1946)
Agromyza igniceps Hendel, 1920
 = *lathyri* misid.
Agromyza lapponica Hendel, 1931
Agromyza lucida Hendel, 1920
Agromyza luteitarsis (Rondani, 1875)
 = *intermittens* misid.
Agromyza marionae Griffiths, 1963
 = *alandensis* Spencer, 1976
Agromyza mobilis Meigen, 1830
Agromyza nana Meigen, 1830
Agromyza nigrella (Rondani, 1875)
Agromyza nigrescens Hendel, 1920
Agromyza nigripes Meigen, 1830
Agromyza nigrociliata Hendel, 1931
Agromyza orobi Hendel, 1920
Agromyza phragmitidis Hendel, 1922
Agromyza pseudoreptans Nowakowski, 1967
 = *urticae* Nowakowski, 1964 preocc.
Agromyza quadriseta Zlobin, 2001
Agromyza reptans Fallén, 1823
Agromyza rufipes (Meigen, 1830)
Agromyza salicina Hendel, 1922
Agromyza sulfuriceps Strobl, 1898
Agromyza vicifoliae Hering, 1932
HEXOMYZA Enderlein, 1936
Hexomyza schineri (Giraud, 1861)
Hexomyza simplicoides (Hendel, 1920)
MELANAGROMYZA Hendel, 1920
Melanagromyza aenea (Meigen, 1830)
Melanagromyza aeneoventris (Fallén, 1823)
Melanagromyza angeliciphaga Spencer, 1969
Melanagromyza chaerophylli Spencer, 1969
Melanagromyza lappae (Loew, 1850)
Melanagromyza nigrissima Spencer, 1976
Melanagromyza oligophaga Spender, 1990

- Melanagromyza pubescens* Hendel, 1923
Melanagromyza submetallescens Spencer, 1966
OPHIOMYIA Braschnikov, 1897
Ophiomyia beckeri (Hendel, 1923)
 = *goniaea* (Hendel, 1931)
Ophiomyia cunctata (Hendel, 1920)
Ophiomyia curvipalpis (Zetterstedt, 1848)
Ophiomyia fennoniensis Spencer, 1976
 ?= *eucodonus* Hering, 1960
 = *melandryi* misid.
Ophiomyia heringi Starý, 1930
 = *penicillata* misid.
Ophiomyia labiatarum Hering, 1937
 = *persimilis* misid.
Ophiomyia longilingua (Hendel, 1920)
 = *rostrata* misid.
Ophiomyia maura (Meigen, 1838)
Ophiomyia nasuta (Melander, 1913)
Ophiomyia orbiculata (Hendel, 1931)
 = *hexachaeta* (Hendel, 1931)
 = *nostradamus* (Hering, 1933)
 = *paracelsus* (Hering, 1933)
Ophiomyia pinguis (Fallén, 1820)
Ophiomyia pulicaria (Meigen, 1830)
Ophiomyia ranunculicaulis Hering, 1949
Ophiomyia vitiosa Spencer, 1964
 ?= *alliariae* Hering, 1954
 PHYTOMYZINAE Fallén, 1823
AMAUROMYZA Hendel, 1931
sg. Amauromyza Hendel, 1931
Amauromyza morionella (Zetterstedt, 1848)
sg. Cephalomyza Hendel, 1931
 = *Trilobomyza* Hendel, 1931
Amauromyza chenopodivora Spencer, 1971
 = *abnormalis* misid.
Amauromyza flavifrons (Meigen, 1830)
Amauromyza gyrans (Fallén, 1823)
Amauromyza karli (Hendel, 1927)
 = *Dizygomyza facialis* Frey, 1941 nom. nudum
Amauromyza labiatarum (Hendel, 1920)
Amauromyza luteiceps (Hendel, 1920)
Amauromyza monfalconensis (Strobl, 1909)
AULAGROMYZA Enderlein, 1936

- = **Paraphytomyza** Enderlein, 1936
Aulagromyza buhri (de Meijere, 1938)
Aulagromyza fulvicornis (Hendel, 1935)
Aulagromyza hendeliana (Hering, 1926)
Aulagromyza heringii (Hengel, 1920)
Aulagromyza lucens (de Meijere, 1924)
Aulagromyza luteoscutellata (de Meijere, 1924)
 = *xylostei* misid.
Aulagromyza similis (Brischke, 1880)
Aulagromyza tremulae (Hering 1957)
Aulagromyza tridentata (Loew, 1858)
Aulagromyza trivittata (Loew, 1873)
CALYCOMYZA Hendel, 1931
Calycomyza artemisiae (Kaltenbach, 1856)
Calycomyza subapproximata (Sasakawa, 1955)
CERODONTA Rondani, 1861
sg. Butomomyza Nowakowski, 1967
Cerodontha caricivora (Groschke, 1954)
Cerodontha eucaricis Nowakowski, 1967
Cerodontha rohdendorfi Nowakowski, 1967
Cerodontha scirpi (Karl, 1926)
 = *scutellaris* misid.
 = *semiposticata* misid.
Cerodontha staryi (Stary, 1930)
sg. Cerodontha Rondani, 1861
Cerodontha affinis (Fallén, 1823)
Cerodontha denticornis (Panzer, 1806)
Cerodontha fulvipes (Meigen, 1830)
 = *femoralis* (Meigen, 1838)
Cerodontha hennigi Nowakowski, 1967
 = *lateralis* (Zetterstedt, 1848) preocc.
Cerodontha stackelbergi Nowakowski, 1972
sg. Dizygomyza Hendel, 1920
Cerodontha bimaculata (Meigen, 1830)
Cerodontha fasciata (Strobl, 1880)
Cerodontha ireos (Robineau-Desvoidy, 1851)
Cerodontha luctuosa (Meigen, 1830)
Cerodontha morosa (Meigen, 1830)
sg. Icteromyza Hendel, 1931
Cerodontha bohemani (Rydén, 1951)
Cerodontha capitata (Zetterstedt, 1848)
Cerodontha churchillensis Spencer, 1969
Cerodontha geniculata (Fallén, 1823)

Cerodontha lineella (Zetterstedt, 1838)

sg. *Phytagromyza* Hendel, 1920

Cerodontha flavocingulata (Strobl, 1909)

= *storai* (Frey, 1946)

sg. *Poemyza* Hendel, 1931

Cerodontha atra (Meigen, 1830)

Cerodontha calamagrostidis Nowakowski, 1967

= *spenceri* Nowakowski, 1967

= *tschirnhausi* Nowakowski, 1973

Cerodontha calosoma (Hendel, 1931)

Cerodontha imbuta (Meigen, 1838)

= *deschampsiae* (Spencer, 1957)

Cerodontha incisa (Meigen, 1830)

Cerodontha lateralis (Macquart, 1835)

Cerodontha muscina (Meigen, 1830)

Cerodontha phragmitidis Nowakowski, 1967

Cerodontha pygmaea (Meigen, 1830)

Cerodontha pygmella (Hendel, 1931)

= *lapplandica* (Rydén, 1956)

Cerodontha spenceriae Zlobin, 1993

= *inconspicua* auct. nec (Malloch, 1914)

Cerodontha thunebergi Nowakowski, 1967

sg. *Xenophytomyza* Frey, 1946

Cerodontha atronitens (Hendel, 1920)

Cerodontha biseta (Hendel, 1920)

= *crassinervis* (Frey, 1946)

Cerodontha venturii Nowakowski, 1967

CHROMATOMYIA Hardy, 1849

Chromatomyia asteris (Hendel, 1934)

Chromatomyia ciliata (Hendel, 1935)

Chromatomyia farfarella (Hendel, 1935)

Chromatomyia fuscula (Zetterstedt, 1838)

Chromatomyia glacialis (Griffiths, 1964)

Chromatomyia horticola (Goureau, 1851)

Chromatomyia isicae (Hering, 1962)

Chromatomyia linnaeae Griffiths, 1974

Chromatomyia loniceræ (Robineau-Desvoidy, 1851)

= *xylostei* (Kaltenbach, 1862) preocc.

Chromatomyia luzulae (Hering, 1924)

Chromatomyia milii (Kaltenbach, 1864)

Chromatomyia nigra (Meigen, 1830)

Chromatomyia norwegica (Rydén, 1957)

Chromatomyia ochracea (Hendel, 1920)

- Chromatomyia opacella* (Hendel, 1935)
Chromatomyia perichlymeni (Hendel, 1922)
Chromatomyia primulae (Robineau-Desvoidy, 1851)
Chromatomyia ramosa (Hendel, 1923)
 = *nigriventris* (Hendel, 1935)
Chromatomyia styriaca Griffiths, 1980
Chromatomyia syngenesiae Hardy, 1849
GALIOMYZA Spencer, 1981
Galiomyza morio (Brischke, 1880)
LIRIOMYZA Mik, 1894
Liriomyza amoena (Meigen, 1830)
Liriomyza angulicornis (Malloch, 1918)
 = *triglochinae* Hendel, 1931
Liriomyza approximata (Hendel, 1920)
Liriomyza artemisicola de Meijere, 1924
Liriomyza bryoniae (Kaltenbach, 1858)
Liriomyza buhri Hering, 1937
 = *adolescens* Frey, 1946
Liriomyza bulbata Hendel, 1931
Liriomyza canescens Spencer, 1976
 = *graminicola* misid.
Liriomyza cannabis Hendel, 1931
Liriomyza congesta (Becker, 1903)
 = *minima* Hendel, 1931
 = *parva* Hendel, 1931
Liriomyza demeijerei Hering, 1930
Liriomyza equiseti de Meijere, 1924
Liriomyza eupatorii (Kaltenbach, 1873)
 = *orbitella* Hendel, 1931
Liriomyza flaveola (Fallén, 1823)
Liriomyza flavopicta Hendel, 1931
Liriomyza freyella Spencer, 1976
Liriomyza hieracii (Kaltenbach, 1862)
Liriomyza infuscata Hering, 1926
Liriomyza lutea (Meigen, 1830)
Liriomyza occipitalis Hendel, 1931
Liriomyza orbona (Meigen, 1830)
Liriomyza pedestris Hendel, 1931
Liriomyza pseudopygmina (Hering, 1933)
Liriomyza ptarmicae de Meijere, 1925
Liriomyza pusilla (Meigen, 1830)
 = *fasciola* (Meigen, 1838)
Liriomyza pusio (Meigen, 1830)

= *graminicola* de Meijere, 1924

= *breviseta* Frey, 1946

Liriomyza richteri Hering, 1927

Liriomyza sonchi Hendel, 1931

Liriomyza strigata (Meigen, 1830)

= *pumila* (Meigen, 1830)

Liriomyza tanaceti de Meijere, 1924

Liriomyza taraxaci Hering, 1927

Liriomyza valerianae Hendel, 1932

Liriomyza virgo (Zetterstedt, 1838)

Liriomyza virgula Frey, 1946

Liriomyza wachtlii Hendel, 1920

METOPOMYZA Enderlein, 1936

Metopomyza flavonotata (Haliday, 1833)

Metopomyza interfrontalis (Melander, 1913)

= *xanthaspida* (Hendel, 1920)

Metopomyza scutellata (Fallén, 1823)

= *flavoscutellaris* misid.

Metopomyza xanthaspioides (Frey, 1946)

Metopomyza xanthaspis (Loew, 1858)

NAPOMYZA Westwood, 1840

Napomyza achilleanella von Tschirnhaus, 1992

Napomyza bellidis Griffiths, 1967

Napomyza carotae Spencer, 1966

Napomyza cichorii Spencer, 1966

Napomyza elegans (Meigen, 1830)

Napomyza hirticornis (Hendel, 1932)

Napomyza lateralis (Fallén, 1823)

Napomyza maritima von Tschirnhaus, 1981

Napomyza merita Zlobin, 1993

Napomyza plumea Spencer, 1969

NEMORIMYZA Frey, 1946

Nemorimyza posticata (Meigen, 1830)

PHYTOBIA Lioy, 1864

= ***Dendromyza*** Hendel, 1931

Phytobia aucupariae (Kangas, 1949)

Phytobia cambii (Hendel, 1931)

= *betulae* (Kangas, 1935)

= *tremulae* (Kangas, 1949)

Phytobia mallochi (Hendel, 1924)

PHYTOLIRIOMYZA Hendel, 1931

Phytoliriomyza arctica (Lundbeck, 1901)

Phytoliriomyza dorsata (Siebke, 1863)

= *Liriomyza fasciata* misid.

- = *pectoralis* misid.
Phytoliriomyza hilarella (Zetterstedt, 1848)
Phytoliriomyza melampyga (Loew, 1869)
Phytoliriomyza mikii (Strobl, 1898)
Phytoliriomyza ornata (Meigen, 1830)
 = *elegantula* (Zetterstedt, 1848)
Phytoliriomyza perpusilla (Meigen, 1830)
PHYTOMYZA Fallén, 1810
Phytomyza abdominalis Zetterstedt, 1848
 = *gentianae* misid.
Phytomyza aconitophila Hendel, 1927
Phytomyza actaeae Hendel, 1922
Phytomyza adjuncta Hering, 1928
Phytomyza albiceps Meigen, 1830
 = *rydeniana* Hering, 1949
Phytomyza albipennis Fallén, 1823
Phytomyza anemones Hering, 1925
Phytomyza angelicae Kaltenbach, 1872
Phytomyza angelicastris Hering, 1932
Phytomyza aquilegiae Hardy, 1849
Phytomyza aquilonia Frey, 1946
Phytomyza artemisivora Spencer, 1971
Phytomyza bubriella Spencer, 1969
Phytomyza calthophila Hering, 1931
Phytomyza campanulae Hendel, 1920
Phytomyza chaerophylli Kaltenbach, 1856
 = *anthrisci* Hendel, 1924
 = *carvi* Hering, 1931
Phytomyza cirsii Hendel, 1923
 = *cirsicola* Hendel, 1927
Phytomyza continua Hendel, 1920
 = *polyarthrocera* Frey, 1946
Phytomyza crassiseta Zetterstedt, 1860
Phytomyza dasyops Hendel, 1920
Phytomyza diversicornis Hendel, 1927
Phytomyza enigmoides Hering, 1937
 = *enigma* Hering, 1936 preocc.
Phytomyza erigerophila Hering, 1927
Phytomyza eumorpha Frey, 1946
Phytomyza evanescens Hendel, 1920
 = *calthivora* misid.
 = *opaca* misid.
Phytomyza fallaciosa Brischke, 1880
 = *pseudohellebori* Hendel, 1920

- = *bonsdorfi* Hendel, 1935
- Phytomyza flavicornis* Fallén, 1823
- Phytomyza flavofemorata* Strobl, 1893
 - = *distantipila* Frey, 1950
 - = *aristata* misid.
 - = *pratensis* de Meijere, 1926
- Phytomyza glabra* Hendel, 1935
- Phytomyza glechomae* Kaltenbach, 1862
- ? *Phytomyza gymnostoma* Loew, 1858
- Phytomyza hellebori* Kaltenbach, 1872
- Phytomyza hendeli* Hering, 1923
- Phytomyza heracleana* Hering, 1937
- Phytomyza hirsuta* Spencer, 1976
- Phytomyza isais* Hering, 1936
- Phytomyza krygeri* Hering, 1949
- Phytomyza lappae* Goureau, 1851
- Phytomyza linguae* Lundqvist, 1947
- Phytomyza marginella* Fallén, 1823
- Phytomyza minuscula* Goureau, 1851
- Phytomyza murina* Hendel, 1935
- Phytomyza mylini* Hering, 1954
- Phytomyza nigrifemur* Hering, 1934
 - = *semitenella* Hendel, 1935
- Phytomyza nigripennis* Fallén, 1823
- Phytomyza nigritula* Zetterstedt, 1838
- Phytomyza notata* Meigen, 1830
- Phytomyza obscurella* Fallén, 1823
- Phytomyza pauliloewii* Hendel, 1920
- Phytomyza pimpinellae* Hendel, 1924
- Phytomyza plantaginis* Robineau-Desvoidy, 1851
- Phytomyza ptarmicae* Hering, 1937
- Phytomyza pubicornis* Hendel, 1920
- Phytomyza pullula* Zetterstedt, 1848
- Phytomyza ranunculi* (Schrank, 1803)
- Phytomyza ranunculivora* Hering, 1932
- Phytomyza rapunculi* Hendel, 1927
 - = *campanulivora* Spencer, 1971
- Phytomyza rhabdophora* Griffiths, 1964
- Phytomyza rostrata* Hering, 1934
- Phytomyza rufescens* von Roser, 1840
- Phytomyza rufipes* Meigen, 1830
- Phytomyza rydeni* Hering, 1934
- Phytomyza sedicola* Hering, 1924

- Phytomyza selini* Hering, 1922
Phytomyza socia Brischke, 1880
Phytomyza soenderupi Hering, 1941
Phytomyza solidaginis Hendel, 1920
Phytomyza spinaciae Hendel, 1935
 = *affinis* misid.
Phytomyza spoliata Strobl, 1906
Phytomyza spondylii Robineau-Desvoidy, 1851
 = *pastinacae* misid.
Phytomyza subrostrata Frey, 1946
Phytomyza tanaceti Hendel, 1923
Phytomyza tenella Meigen, 1830
Phytomyza thyselini Hendel, 1923
Phytomyza trollii Hering, 1930
Phytomyza tussilaginis Hendel, 1925
Phytomyza varipes Macquart, 1835
Phytomyza virgaureae Hering, 1926
Phytomyza virosae Pakalniškis, 2000
Phytomyza wahlgreni Rydén, 1944
 = *robustella* misid.
PSEUDONAPOMYZA Hendel, 1920
Pseudonapomyza atra (Meigen, 1830)
Pseudonapomyza europaea Spencer, 1973
SELACHOPS Wahlberg, 1844
Selachops flavocinctus Wahlberg, 1844

Excluded species

- Cerodontha silvatica* (Groschke, 1957) misidentification
Dizygomyza facialis Frey, 1941 nomen nudum
Liriomyza huidobrensis (Blanchard, 1926) imported
Liriomyza sativae Blanchard, 1938 imported
Liriomyza trifolii (Burgess in Comstock, 1880) imported
Phytomyza atricornis Meigen, 1838 nomen dubium
Phytomyza brischkei Hendel, 1922 misidentification

Notes

- Agromyza nigrociliata***. First recorded from Finland by Thuneberg in Kaisila (1960). The species have since been found at several sites on the south coast (leg. L. Tien-suu, K. Winqvist & J. Kahanpää).

Cerodontha pygmella. First described from the Russian Far East, then redescribed from northern Sweden as *C. lapplandica* (Rydén) (synonymized by Zlobin 2001) and from Poland as *C. tatrlica* Nowakowski (syn. Spencer 1976). The status of this species as distinct from *C. pygmaea* has been doubtful, but Zlobin (2001) pointed out that while *C. pygmella* and *C. pygmaea* are difficult to identify reliably as adults, the larvae are clearly different.

***Liriomyza pedestris* Hendel, 1931** is a valid species according to Zlobin (2003). The Finnish material of the *L. flaveola*-group needs re-examination.

Ophiomyia fennoniensis Spencer is probably a synonym of *O. eucodonus* Hering. Likewise, ***Ophiomyia vitiosa*** Spencer is probably a synonym of *O. alliariae* Hering, 1954 (M. von Tschirnhaus, pers. comm.)

Phytomyza angelicae and ***P. aegopodii***. Spencer (1976) synonymized *P. aegopodii* Hendel, 1923 with *P. angelicae* Kaltenbach. Pakalniškis (2000) reinstated *P. aegopodii* as a valid species but opinions on its status are not unanimous. The Finnish material examined so far represents typical *P. angelicae sensu* Pakalniškis (2000).

Phytomyza brischkei. Recorded by Hackman (1980) from Finland, probably on the basis of Frey (1937). As Spencer (1976) points out, this is a misidentification.

Phytomyza gymnostoma. Recorded from Finland in Fauna Europaea (Martinez 2011), but I have been unable to trace the original records. Possibly imported to Finland with leeks or onions (*Allium*), its host plants. *P. gymnostoma* is an expanding species with Central Europe and has lately damaged crops of *Allium* species (Darvas et al. 1988).

Phytomyza linguae. Spencer (1976) synonymised this species with *P. ranunculivora* Hering. Pakalniškis (1997) reinstated it as a valid species. Both species occur in Finland: L. Tiensuu reared *P. ranunculivora* from *Ranunculus acer* and *P. linguae* from *Ranunculus lingua* from mines collected from Vehkalahti in 1972–3.

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Checklist of the Diptera families Acartophthalmidae, Canacidae (including Tethinidae), Carnidae and Milichiidae of Finland (Insecta)

Jere Kahanpää¹

¹ Finnish Museum of Natural History, Zoology Unit, P.O. Box 17, FI-00014 University of Helsinki, Finland

Corresponding author: Jere Kahanpää (jere.kahanpaa@helsinki.fi)

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Abstract

A checklist of 29 species in the smaller carnoid families Acartophthalmidae, Canacidae, Carnidae and Milichiidae (Diptera) recorded from Finland is presented. Tethinidae are also included as a subfamily of Canacidae. *Phyllomyza tetragona* Hendel is removed from the list as no reliable records of this species within the post-1944 borders of Finland could be found.

Keywords

Checklist, Finland, Diptera, biodiversity, faunistics

Introduction

The superfamily Carnoidea (*sensu* Buck 2006 but excluding Cryptochetidae, see Wiegmann et al. 2011) includes seven families. The largest by far is Chloropidae, treated in a separate article in this issue. Four of the remaining six are found in Finland: Acar-

Table 1. Number of species by family.

Family	Number of species in			Level of knowledge
	World (Pape et al. 2011)	Europe	Finland	
Acartophthalmidae	5	3	3	average
Canacidae	322	38	1	average
Carnidae	93 (Brake 2011)	39	13	poor
Milichiidae	278	43	12–13	average

tophthalmidae, Canacidae, Carnidae and Milichiidae. The remaining two families, Inbiomyiidae and Australimyziidae, are respectively restricted to the Neotropical and Australasian Regions.

All four families are rather poorly studied in Finland. The presence of additional, even undescribed, species is very likely in Carnidae and Milichiidae. The identification of all species of *Meoneura* was verified from male genitalia during the preparation of this checklist with one exception: the male of *Meoneura elongella* (Zetterstedt, 1838) remains undescribed. It is the only North European *Meoneura* with black halteres and as such easily recognised.

World catalogues have recently been published for Canacidae (Munari and Mathis 2010), Carnidae (Brake 2011), and Milichiidae (Brake 2000). The Finnish species of these families were last listed in Hackman (1980).

Checklist

suborder Brachycera Macquart, 1834
 clade Eremoneura Lameere, 1906
 clade Cyclorrhapha Brauer, 1863
 infraorder Schizophora Becher, 1882
 clade Muscaria Enderlein, 1936
 parvorder Acalyptratae Macquart, 1835
 superfamily Carnoidea Newman, 1834

ACARTOPHTHALMIDAE Czerny, 1928

ACARTOPHTHALMUS Czerny, 1902

Acartophthalmus bicolor Oldenberg, 1910

Acartophthalmus nigrinus (Zetterstedt, 1848)

Acartophthalmus pusio Frey, 1947

CANACIDAE Jones, 1906

PELOMYIINAE Foster, 1976

PELOMYIELLA Hendel, 1934

Pelomyiella cinerella (Haliday, 1837)

CARNIDAE Newman, 1834

CARNUS Nitzsch, 1818

Carnus hemapterus Nitzsch, 1818

MEONEURA Rondani, 1856

Meoneura anceps Frey, 1935

Meoneura elongella (Zetterstedt, 1838)

Meoneura flavifacies Collin, 1930

Meoneura glaberrima Becker, 1907

= *neglecta* Collin, 1930

Meoneura lacteipennis (Fallén, 1823)

Meoneura lamellata Collin, 1930

Meoneura minutissima (Zetterstedt, 1860)

Meoneura neottiophila Collin, 1930

Meoneura obscurella (Fallén, 1823)

Meoneura prima (Becker, 1903)

= *seducta* Collin, 1937

Meoneura triangularis Collin, 1930

Meoneura vagans (Fallén, 1823)

MILICHIIDAE Schiner, 1862

MADIZINAE Czerny, 1909

DESMOMETOPA Loew, 1866

Desmometopa m-nigrum (Zetterstedt, 1848)

Desmometopa sordida (Fallén, 1820)

Desmometopa varipalpis Malloch, 1927

LEPTOMETOPA Becker, 1903

Leptommetopa latipes (Meigen, 1830)

MADIZA Fallén, 1810

Madiza glabra Fallén, 1820

MILICHIINAE Schiner, 1862

MILICHA Meigen, 1830

Milichia ludens (Wahlberg, 1847)

PHYLLOMYZINAE Curran, 1934

NEOPHYLLOMYZA Melander, 1913

Neophyllomyza acyglossa (Villeneuve, 1920)

PHYLLOMYZA Fallén, 1810

? *Phyllomyza equitans* (Hendel, 1919)

Phyllomyza formicae Schmitz, 1923

Phyllomyza longipalpis (Schmitz, 1924)

Phyllomyza rubricornis Schmitz, 1923

Phyllomyza securicornis Fallén, 1823

Phyllomyza silesiaca (Duda, 1935)

Excluded species

Phyllomyza tetragona Hendel, 1924 not found within present borders
Tethina grisea (Fallén, 1823) misidentification?
Tethina illota (Haliday, 1838)

Notes

Meoneura. At least two additional, possibly undescribed species occur in Finland.
Phyllomyza equitans (Hendel, 1919). Only females have been found in Finland.
Tethina grisea (Fallén, 1823) and *T. illota* (Haliday, 1838). Munari and Mathis (2010) list two *Tethina* species from Finland. Krogerus (1932) is mentioned as the source for the *T. grisea* record; there is no listed source for the record of *T. illota*. An older version of the world catalogue (Mathis and Munari 1996) mentions only *T. grisea* from Finland. No Finnish specimens of these species could be found in the Finnish Museum of Natural History (MZH) where most of the material collected by Krogerus is kept, or in any other Finnish insect collection. Unfortunately the identifications in Krogerus (1932) are rather unreliable. It is possible that *Tethina* species occur in Finland, but none are included in this checklist because the evidence for their presence is, in my opinion, insufficient.

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Checklist of the family Chloropidae (Diptera) of Finland

Emilia Nartshuk¹, Jere Kahanpää²

¹ Zoological Institute of the Russian Academy of Sciences, Universitetskaya nab. 1 St.-Petersburg 199034 Russia

² Finnish Museum of Natural History, Zoology Unit, P.O. Box 17, FI-00014 University of Helsinki, Finland

Corresponding author: Emilia Nartshuk (chlorops@zin.ru)

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Abstract

A checklist of 147 species the Chloropidae (Diptera) recorded from Finland. *Centorisoma elegantulum* Becker is recorded for the first time from Finland.

Keywords

Finland, Chloropidae, species list, biodiversity, faunistics

Introduction

The Chloropidae is a large family of acalyptrate Diptera. It belongs to superfamily Carnoidea with Milichiidae as the closest relative. The classification of the family used follows Andersson (1977) and Nartshuk (1983).

The North European chloropid fauna has recently been revised by Nartshuk and Andersson (2013). Details of Finnish chloropid literature, species distribution and ecology, and other details can be found in their book. In comparison with the neighbouring countries, Finland ranks second in the number of chloropid species after Sweden (189 species) but well ahead of Denmark (119 species) and Norway (97 species). The genera *Gaurax*, *Incertella* and *Rhopalopteron* need more attention as there are several species in these genera known from neighbouring countries but not from Finland.

This checklist is based mostly on museum material in the Finnish Natural History museum (MZH) studied by E. Nartshuk. The Finnish species were last listed in Nartshuk and Andersson (2013).

Number of species:

World: 2880 species (Pape et al. 2011)

Europe: 394 species

Finland: 149–150 species

Faunistic knowledge level in Finland: average

Checklist

suborder Brachycera Macquart, 1834

clade Eremoneura Lameere, 1906

clade Cyclorrhapha Brauer, 1863

infraorder Schizophora Becher, 1882

clade Muscaria Enderlein, 1936

parvorder Acalyptratae Macquart, 1835

superfamily Carnoidea Newman, 1834

CHLOROPIDAE Rondani, 1856

CHLOROPINAE Rondani, 1856

CENTORISOMA Hendel, 1907

Centorisoma elegantulum Becker, 1910 (see Notes)

CETEMA Hendel, 1907

= *Centor* Loew, 1866 preocc.

sg. *Cetema* Hendel, 1907

Cetema cereris (Fallén, 1820)

Cetema elongatum (Meigen, 1830)

Cetema myopinum (Loew, 1866)

Cetema neglectum Tonnoir, 1921

Cetema simile Ismay, 1985

CHLOROPS Meigen, 1803

= *Oscinis* Latreille, 1804

sg. *Chlorops* Meigen, 1803

Chlorops anthracophagoides Strobl, 1900 (see Notes)

Chlorops calceatus Meigen, 1830

Chlorops centromaculatus Duda, 1933

Chlorops geminatus Meigen, 1830

Chlorops gracilis Meigen, 1830

Chlorops hypostigma Meigen, 1830

Chlorops kirigaminensis Kanmiya, 1978

- = *zonulatus* auct. nec Wahlgren, 1913
Chlorops laetus Meigen, 1830
Chlorops meigenii Loew, 1866
 = *rufescens* Oldenberg, 1923
Chlorops nigripalpis (Duda, 1933)
 = *crassipalpis* Smirnov, 1958
Chlorops obscurellus (Zetterstedt, 1838)
 = *brunnipes* auct. nec (Zetterstedt, 1848)
Chlorops palpatus Smirnov, 1959
Chlorops pannonicus Strobl, 1893
Chlorops planifrons (Loew, 1866)
 = *triangularis* Becker, 1910
Chlorops pumilionis (Bjerkander, 1778)
Chlorops ringens Loew, 1866
Chlorops riparius Smirnov, 1958
Chlorops rossicus Smirnov, 1955
Chlorops rufinus (Zetterstedt, 1848)
 = *citrinellus* (Zetterstedt, 1848)
Chlorops scalaris Meigen, 1830
Chlorops scutellaris (Zetterstedt, 1838)
 = *laevicollis* Becker, 1910
 = *freyi* Duda, 1933
Chlorops serenus Loew, 1866
Chlorops speciosus Meigen, 1830
Chlorops troglodytes (Zetterstedt, 1848)
sg. Sclerophallus Beschovski, 1978
Chlorops limbatus Meigen, 1830
 = *brevimanus* Loew, 1866
Chlorops varsoviensis Becker, 1910
CHLOROPSINA Becker, 1911
Chloropsina distinguenda (Frey, 1909)
CRYPTONEVRA Lioy, 1864
Cryptonevra diadema (Meigen, 1830)
Cryptonevra flavitarsis (Meigen, 1830)
DIPLOTOXA Loew, 1863
Diplotoxa messoria (Fallén, 1820)
DIPLOTOXOIDES Andersson, 1977
Diplotoxoides dalmatina (Strobl, 1900)
EPICHLOROPS Becker, 1910
Epichlorops puncticollis (Zetterstedt, 1848)
EUTROPHA Loew, 1866
Eutropha fulvifrons (Haliday, 1833)
Eutropha variegata Loew, 1866

LASIOSINA Becker, 1910*Lasiosina albipila* (Loew, 1866)*Lasiosina brevisurstylata* Dely-Draskovits, 1977*Lasiosina herpini* (Guérin-Méneville, 1843)= *cinctipes* auct. nec (Meigen, 1830)*Lasiosina parvipennis* Duda, 1933**MELANUM** Becker, 1910*Melanum laterale* (Haliday, 1833)**MEROMYZA** Meigen, 1830**sg. *Meromyza*** Meigen, 1830*Meromyza curvinervis* (Zetterstedt, 1848)= *hybrida* Péterfi, 1961*Meromyza elbergi* Fedoseeva, 1979*Meromyza ingrica* Nartshuk, 1992*Meromyza mosquensis* Fedoseeva, 1960*Meromyza nigriseta* Fedoseeva, 1960*Meromyza nigriventris* Macquart, 1835= *rostrata* Hubicka, 1966*Meromyza ornata* (Wiedemann, 1817)= *sororcula* Fedoseeva, 1962*Meromyza palposa* Fedoseeva, 1960*Meromyza pluriseta* Péterfi, 1961*Meromyza pratorum* Meigen, 1830*Meromyza rohdendorfi* Fedoseeva, 1974*Meromyza saltatrix* (Linnaeus, 1761)*Meromyza sibirica* Fedoseeva, 1961*Meromyza triangulina* Fedoseeva, 1960*Meromyza variegata* Meigen, 1830= *lidiae* Nartshuk, 1992*Meromyza zimzerla* Nartshuk, 1992**NEOHAPLEGIS** Beschovski, 1981*Neohaplegis tarsata* (Fallén, 1820)**PLATYCEPHALA** Fallén, 1820*Platycephala planifrons* (Fabricius, 1798)*Platycephala umbraculata* (Fabricius, 1794)**PSEUDOPACHYCHAETA** Strobl, 1902*Pseudopachychaeta approximatonervis* (Zetterstedt, 1848)*Pseudopachychaeta oscinina* (Fallén, 1813)= *heleocharis* (Nartshuk, 1964)*Pseudopachychaeta ruficeps* (Zetterstedt, 1838)**THAUMATOMYIA** Zenker, 1833*Thaumatomyia glabra* (Meigen, 1830)*Thaumatomyia hallandica* Andersson, 1966

- Thaumatomyia notata* (Meigen, 1830)
Thaumatomyia rufa (Macquart, 1835)
Thaumatomyia trifasciata (Zetterstedt, 1848)
TRICHIEURINA Duda, 1933
Trichieurina pubescens (Meigen, 1830)
OSCINELLINAE Becker, 1910
APHANOTRIGONUM Duda, 1932
Aphanotrigonum cinctellum (Zetterstedt, 1848)
= *fasciella* (Zetterstedt, 1855)
Aphanotrigonum hungaricum Dely-Draskovits, 1981
Aphanotrigonum nigripes (Zetterstedt, 1848)
Aphanotrigonum trilineatum (Meigen, 1830)
= *beschovskii* Dely-Draskovits, 1981
ASPISTYLA Duda, 1933
Aspistyla plumiger (Meigen, 1830)
CALAMONCOSIS Enderlein, 1911
sg. Calamoncosis Enderlein, 1911
Calamoncosis aprica (Meigen, 1830)
Calamoncosis duinensis (Strobl, 1909)
Calamoncosis minima (Strobl, 1893)
Calamoncosis oscinella (Becker, 1910)
sg. Rhapsiopyga Nartshuk, 1971
Calamoncosis glyceriae Nartshuk, 1958
COLLINIELLA Nartshuk & Andersson, 2013
Colliniella mejerei (Duda, 1932) (see Notes)
CONIOSCINELLA Duda, 1929
Conioscinella frontella (Fallén, 1820)
Conioscinella gallarum (Duda, 1933)
Conioscinella livida Nartshuk, 1970
Conioscinella mimula Collin, 1946
Conioscinella sordidella (Zetterstedt, 1848)
Conioscinella zetterstedti Andersson, 1966
DICRAEUS Loew, 1873
sg. Dicraeus Loew, 1873
Dicraeus tibialis (Macquart, 1835)
sg. Oedesiella Becker, 1910
Dicraeus fennicus Duda, 1932
Dicraeus rossicus Stackelberg, 1955
sg. Paroedesiella Anonymous in Imperial Institute of Entomology, 1937
Dicraeus nitidus Wahlgren, 1913
= *napaeus* Collin, 1946
Dicraeus styriacus (Strobl, 1898)
= *vallaris* Collin, 1946

Dicraeus vagans (Meigen, 1838)

ELACHIPTERA Macquart, 1835

Elachiptera cornuta (Fallén, 1820)

Elachiptera diastema Collin, 1946

Elachiptera scrobiculata (Strobl, 1901)

= *tenuiseta* (Frey, 1947)

Elachiptera tuberculifera (Corti, 1909)

ERIBOLUS Becker, 1910

Eribolus gracilior (de Meijere, 1918)

Eribolus hungaricus Becker, 1910

Eribolus nana (Zetterstedt, 1838)

= *sudeticus* Becker, 1910

Eribolus slesvicensis Becker, 1910

GAMPSOCERA Schiner, 1862

Gampsocera numerata (Heeger, 1858)

GAURAX Loew, 1863

Gaurax borealis (Duda, 1933)

Gaurax dubius (Macquart, 1835)

Gaurax ephippium (Zetterstedt, 1848)

= *strobilum* Karpis, 1981

Gaurax fascipes Becker, 1910

Gaurax macrocerus (Nartshuk, 1962)

Gaurax maculipennis (Zetterstedt, 1848)

HAPLEGINELLA Duda, 1933

Hapleginella laevifrons (Loew, 1858)

INCERTELLA Sabrosky, 1980

Incertella albipalpis (Meigen, 1830)

Incertella kerteszi (Becker, 1910)

Incertella nigrifrons (Duda, 1933)

Incertella scotica (Collin, 1946)

Incertella zuercheri (Duda, 1933)

LASIAMBIA Anonymous in Imperial Institute of Entomology, 1937

= *Lasiambia* Enderlein, 1936

= *Lasiambia* Sabrosky, 1941

Lasiambia brevibucca (Duda, 1932)

Lasiambia coxalis (von Roser, 1840)

= *oophila* (Hennig, 1941)

Lasiambia palposa (Fallén, 1820)

LIPARA Meigen, 1830

Lipara lucens Meigen, 1830

Lipara pullitarsis Doskočil & Chvála, 1971

= *rufitarsis* misid.

MICROCERCIS Beschovski, 1978

Microcercis trigonella (Duda, 1933)

OSCINELLA Becker, 1909

sg. *Oscinella* Becker, 1909

Oscinella angularis Collin, 1946

Oscinella cariciphila Collin, 1946

Oscinella frit (Linnaeus, 1758)

Oscinella maura (Fallén, 1820)

= *albiseta* (Meigen, 1830)

Oscinella nigerrima (Macquart, 1835)

Oscinella nitidissima (Meigen, 1838)

Oscinella pusilla (Meigen, 1830)

Oscinella ventricosi Nartshuk, 1956

Oscinella vindicata (Meigen, 1830)

= *hortensis* Collin, 1946

OSCINIMORPHA Lioy, 1864

Oscinimorpha minutissima (Strobl, 1900)

Oscinimorpha sordidissima (Strobl, 1893)

OSCINISOMA Lioy, 1864

Oscinisoma cognatum (Meigen, 1830)

POLYODASPIS Duda, 1933

Polyodaspis ruficornis (Macquart, 1835)

Polyodaspis sulcicollis (Meigen, 1838)

RHOPALOPTERUM Duda, 1929

Rhopalopterum anthracinum (Meigen, 1930)

Rhopalopterum atricillum (Zetterstedt, 1838)

= *atripes* (Duda, 1933)

Rhopalopterum atricorne (Zetterstedt, 1838)

= *platythorax* (Nartshuk, 1958)

Rhopalopterum brunneipenne Beschovski & Lansbury, 1987

Rhopalopterum fasciolum (Meigen, 1830)

Rhopalopterum femorale (Collin, 1946)

SIPHONELLA Macquart, 1835

Siphonella oscinina (Fallén, 1820)

SIPHUNCULINA Rondani, 1856

Siphunculina aenea (Macquart, 1835)

SPECCAFRONS Sabrosky, 1980

Speccafrons halophila (Duda, 1933)

TRACHYSIPHONELLA Enderlein, 1936

Trachysiphonella ruficeps (Macquart, 1835)

= *pygmaea* (Meigen, 1838)

Trachysiphonella scutellata (von Roser, 1840)

TRICIMBA Lioy, 1864

sg. *Nartshukiella* Beschovski, 1981

Tricimba cincta (Meigen, 1830)
= *sulcella* (Zetterstedt, 1848)
sg. *Tricimba* Lioy, 1864
Tricimba lineella (Fallén, 1820)

Excluded species

Chlorops figuratus (Zetterstedt, 1848) not found within present borders.

Notes

***Centorisoma elegantulum* Becker, 1910.** First records from Finland: 1 ex Ta: Heinola, Lusi, July 2013, leg. J. Kahanpää; 6 exx N: Loviisa, 2013, leg. Jari Flinck.
***Chlorops anthracophagoides* Strobl, 1900.** Recorded in Nartshuk (1998) from Eriksberg, which is a Finnish locality.
***Colliniella mejerei* (Duda, 1932).** Recently added to the list of Finnish Diptera (Kahanpää 2013).

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Checklist of the fly families Chyromyidae and Heleomyzidae (Diptera) of Finland

Jere Kahanpää¹

¹ Finnish Museum of Natural History, Zoology Unit, P.O. Box 17, FI-00014 University of Helsinki, Finland

Corresponding author: Jere Kahanpää (jere.kahanpaa@helsinki.fi)

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Abstract

A Finnish checklist of the sphaeroceroid fly families Chyromyidae and Heleomyzidae is provided.

Keywords

Species list, Finland, Diptera, biodiversity, faunistics

Introduction

The superfamily Sphaeroceroidea is a medium-sized one, with two families of moderate diversity, Sphaeroceridae (1550 species) and Heleomyzidae (~720 species), and the small family Chyromyidae. The enigmatic afrotropical *Mormotomyia hirsuta* Austen, 1936 was once placed near Sphaeroceridae but it is now seen as an ephydroid fly (Kirk-Spriggs et al. 2011). McAlpine (2007) has proposed an alternative concept for Sphaeroceroidea with Sphaeroceridae and Heleomyzidae united as a single family called Heteromyzidae. This proposal has not gained significant support and for the purposes of this checklist the traditional concept of family Sphaeroceridae is retained.

Table 1. Number of species by family.

Family	Number of species in			Level of knowledge
	World (Pape et al. 2011)	Europe	Finland	
Chyromyidae	138	59	4	poor–average
Heleomyzidae	727	175	61	average

There is no general agreement on the relationships of various heleomyzid tribes. Several different schemes for subfamilies have been proposed (see McAlpine 2007, McAlpine and Woodley 2010). Some taxa treated here as heleomyzids (primarily Trixoscelidinae, Chiropteromyzinae, Heteromyzinae and Borboropsini) may deserve full family status. As a conservative approach this checklist follows Marshall (2012) and keeps them as subfamilies and tribes. The heleomyzid subfamilies and tribes are listed alphabetically.

The Finnish chyromyids are small yellow flies with (at least while alive) iridescent blue or green eyes. Chyromyids are rarely collected and little is known about their ecology or the proper place of the family within Sphaeroceroidea. They may actually be a specialized lineage arising from within Heleomyzidae *sensu lato*.

Two of the three sphaeroceroid families are treated in this paper. The largest, Sphaeroceridae, is covered in a separate paper in this issue of ZooKeys. The Finnish species of Heleomyzidae and Chyromyidae were last listed by Hackman (1980).

Checklist

suborder Brachycera Macquart, 1834
 clade Eremoneura Lameere, 1906
 clade Cyclorrhapha Brauer, 1863
 infraorder Schizophora Becher, 1882
 clade Muscaria Enderlein, 1936
 parvorder Acalyptratae Macquart, 1835
 superfamily Sphaeroceroidea Macquart, 1835

CHYROMYIDAE Hendel, 1916
CHYROMYINAE Hendel, 1916
CHYROMYA Robineau-Desvoidy, 1830
Chyromya flava (Linnaeus, 1758)
Chyromya oppidana (Scopoli, 1763)
GYMNOCHIROMYIA Hendel, 1933
Gymnochiromyia flavella (Zetterstedt, 1848)
 = *minima* (Becker, 1904)
Gymnochiromyia inermis (Collin, 1933)

HELEOMYZIDAE Westwood, 1840
BORBOROPSINAE Griffiths, 1972

BORBOROPSIS Czerny, 1902*Borboropsis puberula* (Zetterstedt, 1838)= *fulviceps* (Strobl, 1898)**CHIROPTEROMYZINAE** Frey, 1952**CHIROPTEROMYZA** Frey, 1952*Chiropteromyza broerse* (de Meijere, 1946)= *wegelia* Frey, 1952**NEOSSOS** Malloch, 1927= *Ornitholeria* Frey, 1930*Neossos nidicola* (Frey, 1930)**HETEROMYZINAE** Fallén, 1820**HETEROMYZA** Fallén, 1820*Heteromyza atricornis* Meigen, 1830*Heteromyza oculata* Fallén, 1820*Heteromyza rotundicornis* (Zetterstedt, 1846)**TEPHROCHLAMYS** Loew, 1862*Tephrochlamys flavipes* (Zetterstedt, 1838)*Tephrochlamys rufiventris* (Meigen, 1830)= *lapponica* (Czerny, 1924)*Tephrochlamys steniusi* Frey, 1930*Tephrochlamys tarsalis* (Zetterstedt, 1847)**HELEOMYZINAE** Westwood, 1840

tribe Heleomyzini Westwood, 1840

GYMNOMUS Loew, 1863*Gymnomus amplicornis* (Czerny, 1924)**HELEOMYZA** Fallén, 1810= *Helomyza* Fallén, 1820 emend.= *Leria* Robineau-Desvoidy, 1830**sg. Heleomyza** Fallén, 1810*Heleomyza borealis* Boheman, 1865= *czernyi* Collart, 1933= *modesta* misid.*Heleomyza hackmani* Frey, 1950*Heleomyza pleuralis* (Becker, 1907)*Heleomyza serrata* (Linnaeus, 1758)**MORPHOLERIA** Garrett, 1921**sg. Spanoparea** Czerny, 1924*Morpholeria dudai* (Czerny, 1924)*Morpholeria kerteszi* Czerny, 1924*Morpholeria obscuriventris* (Zetterstedt, 1847)*Morpholeria ruficornis* (Meigen, 1830)**NEOLERIA** Malloch, 1919*Neoleria inscripta* (Meigen, 1830)

- = *minuta* (Zetterstedt, 1838)
Neoleria prominens (Becker, 1897)
 = *tibialis* misid.
Neoleria ruficauda (Zetterstedt, 1847)
Neoleria ruficeps (Zetterstedt, 1838)
SCOLIOCENTRA Loew, 1862
sg. Chaetomus Czerny, 1924
Scoliocentra confusa (Wahlgren, 1918)
Scoliocentra flavotestacea (Zetterstedt, 1838)
sg. Leriola Gorodkov, 1962
Scoliocentra brachypterna (Loew, 1873)
Scoliocentra nigrinervis (Wahlgren, 1918)
sg. Scoliocentra Loew, 1862
Scoliocentra dupliciseta (Strobl, 1894)
Scoliocentra scutellaris (Zetterstedt, 1838)
Scoliocentra villosa (Meigen, 1830)
 tribe Oecothieini Gorodkov, 1972
ECCOPTOMERA Loew, 1862
Eccoptomera infuscata Wahlgren, 1918
Eccoptomera longiseta (Meigen, 1830)
Eccoptomera marginicornis Czerny, 1924
Eccoptomera microps (Meigen, 1830)
Eccoptomera obscura (Meigen, 1830)
Eccoptomera ornata Loew, 1862
Eccoptomera pallescens (Meigen, 1830)
OECOTHEA Haliday, 1837
Oecothia fenestralis (Fallén, 1820)
 tribe Orbelliini Gorodkov, 1972
ORBELLIA Robineau-Desvoidy, 1830
Orbellia nivicola Frey, 1913
 SUILLIINAE Wahlgren, 1917
SUILLIA Robineau-Desvoidy, 1830
 = **Allophyla** Loew, 1862
Suillia affinis (Meigen, 1830)
Suillia apicalis (Loew, 1862)
Suillia atricornis (Meigen, 1830)
Suillia bicolor (Zetterstedt, 1838)
Suillia femoralis (Loew, 1862)
Suillia flava (Meigen, 1830)
Suillia flavifrons (Zetterstedt, 1838)
 = *nudipes* (Czerny, 1932)
Suillia fuscicornis (Zetterstedt, 1847)
Suillia humilis (Meigen, 1830)

- = *inornata* (Loew, 1862)
Suillia laevifrons (Loew, 1862)
Suillia lineitergum (Pandellé, 1901)
 = *strobltii* (Czerny, 1904)
Suillia lurida (Meigen, 1830)
Suillia mikii (Pokorny, 1886)
Suillia nemorum (Meigen, 1830)
Suillia pallida (Fallén, 1820)
Suillia parva (Loew, 1862)
 = *collini* Hackman, 1972
 = *flavifrons* auct. nec (Zetterstedt, 1838)
Suillia quadrilineata Czerny, 1924
Suillia vaginata (Loew, 1862)
 TRIXOSCELIDINAE Hendel, 1916
TRIXOSCELIS Rondani, 1856
Trixoscelis frontalis (Fallén, 1823)
 ? = *canescens* misid. (see Notes)
Trixoscelis marginella (Fallén, 1823)
Trixoscelis obscurella (Fallén, 1823)
Trixoscelis similis Hackman, 1970

Notes

***Chyromya oppidana* (Scopoli, 1763).** Found only inside houses and farm buildings in Finland.

***Orbellia nivicola* Frey, 1913.** This species was synonymized with *O. myiopiiformis* R.-D. by Storå (1958), but Frey (1958) defended its validity. The status of *O. nivicola* as a species needs verification.

***Trixoscelis canescens* (Loew, 1865).** This species was originally described on the basis of a single female. Soós (1979) examined the type and revived the name from synonymy with *T. frontalis*. Woźnica (2008) provided an illustrated diagnosis for *T. canescens* and synonymized *T. gigans* Carles-Tolrá, 2001 and *T. fumipennis* Papp, 2005 with it. The species was recently recorded from Finland by Flinck and Kahanpää (2013). Specimens with darkened costal veins and dorsal abdominal surfaces, both proposed diagnostic characters of *T. canescens*, are common among Finnish *T. frontalis* material (see Fig. 8 in Flinck and Kahanpää 2013). Finnish males with these features have genitalia identical with those illustrated for *T. frontalis* by Hackman (1970) and quite unlike the genitalia of *T. gigans* (= *fumipennis* Papp). The male specimen mentioned in Flinck and Kahanpää (2013) was later dissected and it belongs to *T. frontalis*. The external characters (darkened costa and dorsum of abdomen) can not be used to reliably separate *T. canescens* from *T. frontalis*. The Finnish records of *T. canescens* are probably all misidentifications of *T. frontalis*.

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Checklist of the family Sphaeroceridae (Diptera) of Finland

Antti Haarto¹, Jere Kahanpää²

1 Zoological Museum, Section of Biodiversity and Environmental Science, Department of Biology, FI-20014 University of Turku, Finland **2** Finnish Museum of Natural History, Zoology Unit, P.O. Box 17, FI-00014 University of Helsinki, Finland

Corresponding author: Antti Haarto (ahaarto@gmail.com)

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Abstract

A checklist of the family Sphaeroceridae (Diptera) recorded from Finland.

Keywords

Checklist, Finland, Diptera, Sphaeroceridae

Introduction

Sphaeroceridae or lesser dung flies are mostly small and dull dark brown to grey acalyptrate flies. They are easily distinguished from other acalyptratae because of the short and thickened basal tarsomeres of hind legs. Larvae of Sphaeroceridae develop in decaying organic matter such as decaying vegetation, dung and rotten fungi.

The family has gathered little interest among entomologists in Finland. Walter Hackman concentrated on the taxonomy of the subfamily Copromyzinae (Hackman 1965) and investigated the dipterous fauna, including sphaerocerids, in the burrows of small mammals (Hackman 1963). Hackman (1980) published the latest list of the Finnish sphaerocerid species. Further species were added in several revisions of Eu-

ropean taxa by Roháček (1982, 1983, 1991). There has been increasing interest in sphaerocerids in Finland after the year 2000 (see Haarto and Kahanpää 2013).

The classification follows the world catalogue of Sphaeroceridae (Roháček et al. 2001, Marshall et al. 2011).

Number of species:

World: 1571 species (Pape et al. 2011)

Europe: 257 species

Finland: 118 species

Faunistic knowledge level in Finland: average

Checklist

suborder Brachycera Macquart, 1834

clade Eremoneura Lameere, 1906

clade Cyclorrhapha Brauer, 1863

infraorder Schizophora Becher, 1882

clade Muscaria Enderlein, 1936

parvorder Acalyptratae Macquart, 1835

superfamily Sphaeroceroidea Macquart, 1835

SPHAEROCERIDAE Macquart, 1835

COPROMYZINAE Stenhammar, 1854

ALLOBORBORUS Duda, 1923

Alloborborus pallifrons (Fallén, 1820)

= *flavipennis* (Haliday, 1836)

BORBORILLUS Duda, 1923

Borborillus uncinatus (Duda, 1923)

Borborillus vitripennis (Meigen, 1830)

= *longipennis* (Haliday, 1836)

COPROMYZA Fallén, 1810

Copromyza borealis Zetterstedt, 1847

Copromyza equina Fallén, 1820

Copromyza nigrina (Gimmerthal, 1847)

= *similis* (Collin, 1930)

Copromyza stercoraria (Meigen, 1830)

CRUMOMYIA Macquart, 1835

= *Apterina* Macquart, 1835

Crumomyia fimetaria (Meigen, 1830)

Crumomyia gelida Hackman, 1965

Crumomyia glabrifrons (Meigen, 1830)

Crumomyia nigra (Meigen, 1830)

Crumomyia nitida (Meigen, 1830)

Crumomyia notabilis (Collin, 1902)

= *glacialis* misid.

Crumomyia pedestris (Meigen, 1830)

Crumomyia pruinosa (Richards, 1932)

= *annulus* misid.

= *rufoannulata* misid.

Crumomyia setitibialis (Spuler, 1925)

= *freyi* (Hackman, 1965)

= *annulipes* misid.

= *roseri* misid.

LOTOPHILA Lioy, 1864

Lotophila atra (Meigen, 1830)

NORRBOMIA Papp, 1988

Norrbomia costalis (Zetterstedt, 1847)

Norrbomia fumipennis (Stenhammar, 1855)

Norrbomia hispanica (Duda, 1923)

Norrbomia sordida (Zetterstedt, 1847)

SPHAEROCERINAE Macquart, 1835

ISCHIOLEPTA Lioy, 1864

Ischiolepta crenata (Meigen, 1838)

Ischiolepta denticulata (Meigen, 1830)

= *paracrenata* (Duda, 1920)

Ischiolepta micropyga (Duda, 1938)

Ischiolepta nitida (Duda, 1920)

= *denticulata* auct. nec (Meigen, 1830)

Ischiolepta pusilla (Fallén, 1820)

Ischiolepta scabricula (Haliday, 1836)

Ischiolepta vaporariorum (Haliday, 1836)

LOTOBIA Lioy, 1864

Lotobia pallidiventris (Meigen, 1830)

SPHAEROCERA Latreille, 1804

= *Cypsela* Meigen, 1800 suppr.

Sphaerocera curvipes Latreille, 1805

Sphaerocera monilis Haliday, 1836

LIMOSININAE Frey, 1921

APTEROMYIA Vimmer, 1929

Apteromyia claviventris (Strobl, 1909)

BIFRONSINA Roháček, 1983

Bifronsina bifrons (Stenhammar, 1855)

CHAETOPODELLA Duda, 1920

sg. *Chaetopodella* Duda, 1920

Chaetopodella scutellaris (Haliday, 1836)

COPROICA Rondani, 1861

- Coproica acutangula* (Zetterstedt, 1847)
Coproica ferruginata (Stenhammar, 1855)
Coproica hirticula Collin, 1965
Coproica hirtula (Rondani, 1880)
Coproica lugubris (Haliday, 1835)
Coproica pusio (Zetterstedt, 1847)
 = *pseudolugubris* (Duda, 1924)
Coproica vagans (Haliday, 1833)

ELACHISOMA Rondani, 1880

- Elachisoma aterrimum* (Haliday, 1833)

EULIMOSINA Roháček, 1983

- Eulimosina ochripes* (Meigen, 1830)

GIGALIMOSINA Roháček, 1983

- Gigalimosina flaviceps* Zetterstedt, 1847

GONIONEURA Rondani, 1880

- = *Halidayina* Duda, 1918
Gonioneura spinipennis (Haliday, 1836)

HERNIOSINA Roháček, 1983

- Herniosina bequaerti* (Villeneuve, 1917)

LEPTOCERA Olivier, 1813

- = *Paracollinella* Duda, 1924
Leptocera caenosa (Rondani, 1880)
Leptocera finalis (Collin, 1956)
Leptocera fontinalis (Fallén, 1826)
Leptocera nigra Olivier, 1813

LIMOSINA Macquart, 1835

- Limosina silvatica* (Meigen, 1830)

MINILIMOSINA Roháček, 1983

- sg. *Minilimosina* Roháček, 1983
Minilimosina baculum Marshall, 1985
Minilimosina bicuspis Roháček, 1993
 = *trogeri* misid.

- Minilimosina fungicola* (Haliday, 1836)

= *exigua* (Rondani, 1880)

- Minilimosina parvula* Stenhammar, 1855

- Minilimosina tenera* Roháček, 1983

sg. *Svarciella* Roháček, 1983

- Minilimosina guestphalica* (Duda, 1918)

= *v-atrum* misid.

- Minilimosina v-atrum* (Villeneuve, 1917)

= *splendens* (Duda, 1928)

- Minilimosina vitripennis* (Zetterstedt, 1847)

OPACIFRONS Duda, 1918*Opacifrons coxata* (Stenhammar, 1855)**OPALIMOSINA** Roháček, 1983**sg. *Dentilimosina*** Roháček, 1983*Opalimosina denticulata* (Duda, 1924)**sg. *Opalimosina*** Roháček, 1983*Opalimosina collini* (Richards, 1929)*Opalimosina mirabilis* (Collin, 1902)*Opalimosina simplex* Richards 1929**sg. *Pappiella*** Roháček, 1983*Opalimosina liliputana* (Rondani, 1880)= *appendiculata* Villeneuve, 1918**PARALIMOSINA** Papp, 1973*Paralimosina kaszabi* Papp, 1973**PHILOCOPRELLA** Richards, 1929*Philocoprella quadrispina* (Laurence, 1952)**PHTHITIA** Enderlein, 1938**sg. *Alimosina*** Roháček, 1983*Phthitia empirica* (Hutton, 1901)= *cadaverina* (Duda, 1918)**sg. *Collimosina*** Roháček, 1983*Phthitia spinosa* Collin, 1930**sg. *Kimosina*** Roháček, 1983*Phthitia longisetosa* (Dahl, 1909)*Phthitia plumosula* (Rondani, 1880)**PSEUDOCOLLINELLA** Duda, 1924*Pseudocollinella flavilabris* (Hackman, 1968)*Pseudocollinella humida* (Haliday, 1836)*Pseudocollinella septentrionalis* (Stenhammar, 1855)**PTEREMIS** Rondani, 1856*Pteremis fenestralis* (Fallén, 1820)= *nivalis* (Haliday, 1833)= *subaptera* Frey, 1946**PULLIMOSINA** Roháček, 1983**sg. *Dablimosina*** Roháček, 1983*Pullimosina dabli* (Duda, 1918)**sg. *Pullimosina*** Roháček, 1983*Pullimosina heteroneura* (Haliday, 1836)*Pullimosina mejerei* (Duda, 1918)*Pullimosina moesta* (Villeneuve, 1918)= *antennata* (Duda, 1918)*Pullimosina pullula* (Zetterstedt, 1847)*Pullimosina vulgesta* Roháček, 2001

= *moesta* auct. nec (Villeneuve, 1918)

RACHISPODA Lioy, 1864

Rachispoda anceps (Stenhammar, 1855)

Rachispoda breviceps (Stenhammar, 1855)

Rachispoda fuscipennis (Haliday, 1833)

Rachispoda hostica Villeneuve, 1917

Rachispoda intermedia (Duda, 1918)

Rachispoda limosa (Zetterstedt, 1820)

Rachispoda lugubrina (Zetterstedt, 1847)

Rachispoda lutosa (Stenhammar, 1855)

= *palustris* (Collin, 1930)

Rachispoda lutosoidea (Duda, 1938)

= *lutosa* auct. nec (Stenhammar, 1855)

SPELOBIA Spuler, 1924

Spelobia belanica Roháček, 1983

Spelobia cambrica (Richards, 1929)

Spelobia clunipes (Meigen, 1830)

= *crassimana* (Haliday, 1836)

Spelobia ibrida Roháček, 1983

Spelobia luteilabris (Rondani, 1880)

Spelobia manicata (Richards, 1927)

Spelobia nana (Rondani, 1880)

Spelobia palmata (Richards, 1927)

Spelobia pappi Roháček, 1983

Spelobia parapusio (Dahl, 1909)

Spelobia pseudonivalis (Dahl, 1909)

Spelobia pseudosetaria (Duda, 1918)

= *penetralis* (Collin, 1925)

Spelobia rufilabris (Stenhammar, 1855)

Spelobia talparum (Richards, 1927)

Spelobia ulla Roháček, 1983

SPINILIMOSINA Roháček, 1983

Spinilimosina brevicostata (Duda, 1918)

TELOMERINA Roháček, 1983

Telomerina eburnea Roháček, 1983

Telomerina flavipes (Meigen, 1830)

Telomerina pseudoleucoptera (Duda, 1924)

TERRILIMOSINA Roháček, 1983

Terrilimosina racovitzai (Bezzi, 1911)

Terrilimosina schmitzi (Duda, 1918)

THORACOCOAETA Duda, 1918

Thoracochaeta brachystoma (Stenhammar, 1855)

Thoracochaeta zosterae (Haliday, 1833)

TRACHYOPELLA Duda, 1918

sg. *Nudopella* Roháček & Marshall, 1986

Trachyopella leucoptera (Haliday, 1836)

sg. *Trachyopella* Duda, 1918

Trachyopella atomus (Rondani, 1880)

Trachyopella bovilla Collin, 1954

= *coprina* misid.

Trachyopella lineafrons (Spuler, 1925)

= *atomus* misid.

Trachyopella melania (Haliday, 1836)

= *villeneuveii* (Duda, 1924)

Excluded species

Rachispoda cilifera (Rondani, 1880) not found within present borders

Minilimosina unica (Papp, 1973) not found within present borders

= *hackmani* (Roháček, 1977)

Notes

Spelobia manicata (Richards, 1927) is considered a valid species although Pitkin (1988) synonymized it with *Spelobia clunipes* (Meigen, 1830).

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Checklist of the Braulidae, Camillidae, Diastatidae and Drosophilidae of Finland (Diptera, Ephydroidea)

Jere Kahanpää¹

¹ *Finnish Museum of Natural History, Zoology Unit, P.O. Box 17, FI-00014 University of Helsinki, Finland*

Corresponding author: *Jere Kahanpää* (jere.kahanpaa@helsinki.fi)

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Abstract

A checklist of the Braulidae (1 species), Camillidae (3 spp.), Diastatidae (10 spp.) and Drosophilidae (67 spp.) of Finland is presented. Campichoetinae is included as a subfamily of Diastatidae.

Keywords

Checklist, Finland, Diptera, biodiversity, faunistics

Introduction

The Ephydroidea is now recognized as a well-supported, probably monophyletic clade of acalyptrate flies (Wiegmann et al. 2011), although the correct placement of some of the included families – especially the very unusual bee louses of family Braulidae – is still being discussed. The relationships of the families within the superfamily are less understood and the families are listed alphabetically in the checklist below. Seven or eight families are currently included in Ephydroidea. Five of them are found in Finland. Four families are covered in this paper; the fifth (Ephydridae itself) has its own treatment in this volume of ZooKeys. The families missing from Finland are the Curtonotidae, Cryptochetidae, and Nannodastiidae with uncertain affinities (Papp

Table 1. Number of species by family.

Family	Number of species in			Level of knowledge
	World (Pape et al. 2011)	Europe	Finland	
Braulidae	7	3	1	poor
Camillidae	40	8	3	average
Diastatidae	49 (Mathis and Barraclough 2011)	16	10	good
Drosophilidae	4003	121	67	good

and Mathis 2001). Griffiths (1972) proposed a new family, Campichoetidae, for *Campichoeta* Macquart, 1835. We follow the world catalogue of Diastatidae (Mathis and Barraclough 2011) and keep Campichoetinae as a subfamily of Diastatidae.

World catalogues have been recently published for Diastatidae (Mathis and Barraclough 2011) and Drosophilidae (Brake and Bächli 2008). The North European Drosophilidae were treated in detail by Bächli et al. (2004) and the review of Finnish *Drosophila* by Hackman (1954) is now obsolete. The Finnish species of Braulidae and Camillidae were last listed by Hackman (1980); the diastatids were treated by Chandler (1987).

Checklist

suborder Brachycera Macquart, 1834
 clade Eremoneura Lameere, 1906
 clade Cyclorrhapha Brauer, 1863
 infraorder Schizophora Becher, 1882
 clade Muscaria Enderlein, 1936
 parvorder Acalyptratae Macquart, 1835
 superfamily Ephydroidea Zetterstedt, 1837

BRAULIDAE Egger, 1853

BRAULA Nitzsch, 1818

Braula coeca Nitzsch, 1818

CAMILLIDAE Frey, 1921

CAMILLA Haliday, 1838

Camilla atrimana Strobl, 1910

= *atripes* Duda, 1934

= *acutipennis* misid.

Camilla flavicauda Duda, 1922

= *glabrata* Collin, 1956

Camilla glabra (Fallén, 1823)

= *subfuscipes* Collin, 1933

DIASTATIDAE Hendel, 1917

CAMPICHOETINAE Griffiths, 1972

CAMPICHOETA Macquart, 1835*Campichoeta griseola* (Zetterstedt, 1855)*Campichoeta obscuripennis* (Meigen, 1830)

DIASTATINAE Hendel, 1917

DIASTATA Meigen, 1830*Diastata adusta* Meigen, 1830= *unipunctata* Zetterstedt, 1847*Diastata boreonigra* Chandler, 1987*Diastata costata* Meigen, 1830*Diastata flavicosta* Chandler, 1987*Diastata fuscula* (Fallén, 1820)*Diastata nebulosa* (Fallén, 1823)*Diastata ornata* Meigen, 1830*Diastata vagans* Loew, 1864**DROSOPHILIDAE** Rondani, 1856

STEGANINAE Hendel, 1917

AMIOTA Loew, 1862**sg. *Amiota*** Loew, 1862*Amiota albilabris* (Roth in Zetterstedt, 1860)*Amiota alboguttata* (Wahlberg, 1839)*Amiota rufescens* (Oldenberg, 1914)*Amiota subtusradiata* Duda, 1934**CACOXENUS** Loew, 1858**sg. *Paracacoxenus*** Hardy & Wheeler, 1960*Cacoxenus argyreator* Frey, 1932**LEUCOPHENGA** Mik, 1886**sg. *Neoleucophenga*** Oldenberg, 1915*Leucophenga quinquemaculata* Strobl, 1893**PHORTICA** Schiner, 1862**sg. *Phortica*** Schiner, 1862*Phortica variegata* Fallén, 1823**STEGANA** Meigen, 1830**sg. *Stegana*** Meigen, 1830*Stegana furta* (Linnaeus, 1766)= *curvipennis* (Fallén, 1823)**sg. *Steganina*** Wheeler, 1960*Stegana baechlii* Laštovka & Máca, 1982*Stegana coleoprata* (Scopoli, 1763)*Stegana hypoleuca* Meigen, 1830*Stegana longifibula* Takada, 1968

Stegana mehadiae Duda, 1924

Stegana nigrithorax Strobl, 1898

Stegana similis Laštovka & Máca, 1982

DROSOPHILINAE Rondani, 1856

CHYMOMYZA Czerny, 1903

Chymomyza amoena (Loew, 1862)

Chymomyza caudatula Oldenberg, 1914

Chymomyza costata (Zetterstedt, 1838)

Chymomyza distincta (Egger, 1862)

Chymomyza fuscimana (Zetterstedt, 1838)

DROSOPHILA Fallén, 1823

sg. Dorsilopha Sturtevant, 1942

Drosophila busckii Coquillett, 1901

sg. Drosophila Fallén, 1823

Drosophila ezoana Takada & Okada, 1957

Drosophila funebris (Fabricius, 1787)

Drosophila histrio Meigen, 1830

Drosophila hydei Sturtevant, 1921

= *repleta* misid.

Drosophila immigrans Sturtevant, 1921

= *tripunctata* Becker, 1908 preocc.

Drosophila limbata von Roser, 1840

Drosophila littoralis Meigen, 1830

Drosophila lummei Hackman, 1972

Drosophila montana Stone, Griffen & Patterson, 1941

= *ovivororum* Lakovaara & Hackman, 1973

Drosophila phalerata Meigen, 1830

Drosophila picta Zetterstedt, 1847

Drosophila repleta Wollaston, 1858

Drosophila subarctica Hackman, 1969

Drosophila testacea von Roser, 1840

Drosophila transversa Fallén, 1823

Drosophila vireni Bächli, Vilela & Haring, 2002

sg. Sophophora Sturtevant, 1942

Drosophila alpina Burla, 1948

Drosophila ambigua Pomini, 1940

Drosophila bifasciata Pomini, 1940

Drosophila eskoi Lakovaara & Lankinen, 1974

Drosophila ingrca Hackman, 1957

Drosophila melanogaster Meigen, 1830

Drosophila obscura Fallén, 1823

Drosophila simulans Sturtevant, 1919

Drosophila subobscura Collin, 1936

Drosophila subsilvestris Hardy & Kaneshiro, 1968

= *silvestris* Basden, 1954 preocc.

Drosophila tristis Fallén, 1823

HIRTODROSOPHILA Duda, 1924

Hirtodrosophila cameraria (Haliday, 1833)

Hirtodrosophila confusa (Staeger, 1844)

Hirtodrosophila lundstroemi (Duda, 1935)

Hirtodrosophila oldenbergi (Duda, 1924)

Hirtodrosophila trivittata (Strobl, 1893)

LORDIPHOSA Basden, 1961

Lordiphosa fenestrarum (Fallén, 1823)

Lordiphosa nigricolor (Strobl, 1898)

MICRODROSOPHILA Malloch, 1921

sg. *Microdrosophila* Malloch, 1921

Microdrosophila congesta (Zetterstedt, 1847)

sg. *Oxystyloptera* Duda, 1924

Microdrosophila zetterstedti Wheeler, 1959

= *nigriventris* (Zetterstedt, 1847) preocc.

SCAPTODROSOPHILA Duda, 1923

Scaptodrosophila deflexa (Duda, 1924)

= *guyenoti* (Burla, 1948)

SCAPTOMYZA Hardy, 1849

sg. *Hemiscaptomyza* Hackman, 1959

Scaptomyza trochanterata Collin, 1953

Scaptomyza unipunctum (Zetterstedt, 1847)

sg. *Parascaptomyza* Duda, 1924

Scaptomyza pallida (Zetterstedt, 1847)

= *disticha* (Duda, 1921)

sg. *Scaptomyza* Hardy, 1849

Scaptomyza consimilis Hackman, 1955

Scaptomyza flava (Fallén, 1823)

= *flaveola* (Meigen, 1830)

= *apicalis* Hardy, 1849

Scaptomyza graminum (Fallén, 1823)

Scaptomyza griseola (Zetterstedt, 1847)

Scaptomyza montana Wheeler, 1949

Scaptomyza teinoptera Hackman, 1955

Excluded species

Stegana strobli Mik, 1898 misidentification

Lordiphosa hexasticha (Papp, 1971) not found within present borders

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Checklist of the family Ephydriidae of Finland (Insecta, Diptera)

Tadeusz Zatwarnicki¹, Jere Kahanpää²

1 Department of Biosystematics, Opole University, ul. Oleska 22, 45-052 Opole, Poland **2** Finnish Museum of Natural History, Zoology Unit, P.O. Box 17, FI-00014 University of Helsinki, Finland

Corresponding author: Tadeusz Zatwarnicki (zatwar@uni.opole.pl)

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Abstract

A checklist of 112 species of shore flies (Ephydriidae, Diptera) recorded from Finland is presented. Comparing this to the list of Hackman (1980), 52 changes are made: 25 species are added (all but one recorded after 1980), 18 misidentifications are deleted, 5 junior synonyms are replaced and 5 updated generic combinations are given.

Keywords

Checklist, Finland, Diptera, Ephydriidae

Introduction

Shore flies (Ephydriidae) are dark coloured, dull to shining, 1–6 mm long flies. Most species develop in aquatic or semi-aquatic conditions, feeding of algae, bacteria, yeasts or even decaying animal matter and excrements; or they are phytophagous and mining in leaves or stems. The group is divided into 5 subfamilies and 19 tribes (Zatwarnicki 1992), of which 15 could potentially be found in Finland.

Hackman (1980) originally listed 105 species. Zatwarnicki (1997) corrected the synonymy and generic placement of some species. Compared to Hackman (1980)

the present list adds 25 species and removes 18 misidentified species (mostly *Hydrellia*). Five junior synonyms in *Hydrellia*, *Philygria*, *Scatella* and *Scatophila* are replaced; four species of *Ditrichophora* are combined with *Gymnoclasiopa* and one species of *Lamproscatella* with *Haloscatella*. Two species are endemic for Finland: *Psilopa nitidifacies* Frey, 1930 (note that this was omitted by Hackman 1980), and *Gymnoclasiopa psilopina* (Frey, 1933).

Nomenclature follows the current version of the Ephydridae section of Fauna Europaea (Zatwarnicki 2013). The subfamilies and the tribes are ordered systematically; genera within tribes and species within genera are listed alphabetically.

Number of species:

World: 1927 species and 63 nomina dubia (as of February 2014)

Europe: 340 species and 3 subspecies (Zatwarnicki 2013)

Finland: 112 species

Faunistic knowledge level in Finland: average

Checklist

suborder Brachycera Macquart, 1834
 clade Eremoneura Lameere, 1906
 clade Cyclorrhapha Brauer, 1863
 infraorder Schizophora Becher, 1882
 clade Muscaria Enderlein, 1936
 parvorder Acalyptratae Macquart, 1835
 superfamily Ephydroidea Zetterstedt, 1837

EPHYDRIDAE Zetterstedt, 1837

DISCOMYZINAE Acloque, 1897

Discomyzini Acloque, 1897

DISCOMYZA Meigen, 1830

Discomyza incurva (Fallén, 1823)

Psilopini Cresson, 1925

PSILOPA Fallén, 1823

Psilopa compta (Meigen, 1830)

Psilopa leucostoma (Meigen, 1830)

Psilopa marginella Fallén, 1823

Psilopa nigritella Stenhammar, 1844

Psilopa nitidifacies Frey, 1958

Psilopa nitidula (Fallén, 1813)

Psilopa polita (Macquart, 1835)

TRIMERINA Macquart, 1835

Trimerina madizans (Fallén, 1813)

- Trimerina microchaeta* Hendel, 1932
 = *indistincta* Krivosheina 2004
- HYDRELLIINAE Robineau-Desvoidy, 1830
- Atissini Cresson, 1942
- ATISSA** Haliday, 1839
- Atissa limosina* Becker, 1896
- Atissa pygmaea* Haliday, 1839
- Hydrelliini Robineau-Desvoidy, 1830
- HYDRELLIA** Robineau-Desvoidy, 1830
- Hydrellia albifrons* Fallén, 1813
- Hydrellia albilabris* (Meigen, 1830)
- Hydrellia cardamines* Haliday, 1839
 = *baltica* Frey, 1930
- Hydrellia cochleariae* Haliday, 1839
 = *flavicornis* misid.
- Hydrellia flaviceps* (Meigen, 1830)
 = *discors* Collin, 1966
 = *lapponica* misid.
- Hydrellia fulviceps* (Stenhammar, 1844)
 = *chrysostoma* misid.
- Hydrellia fusca* (Stenhammar, 1844)
- Hydrellia griseola* (Fallén, 1813)
 = *chrysostoma* (Meigen, 1830)
- Hydrellia laticeps* (Stenhammar, 1844)
- Hydrellia mutata* (Zetterstedt, 1846)
- Hydrellia obscura* (Meigen, 1830)
 = *fascitibia* misid.
- Hydrellia pilitarsis* (Stenhammar, 1844)
- Hydrellia subalbiceps* Collin, 1966
- Hydrellia tarsata* Haliday, 1839
- Hydrellia thoracica* Haliday, 1839
 = *modesta* misid.
- Notiphilini Bigot, 1853
- DICHAETA** Meigen, 1830
- Dichaeta caudata* (Fallén, 1813)
 = *brevicauda* Loew, 1860
- NOTIPHILA** Fallén, 1810
- sg. Agrolimna** Cresson, 1917
- Notiphila uliginosa* Haliday, 1839
- sg. Notiphila** Fallén, 1810
- Notiphila annulipes* Stenhammar, 1844
- Notiphila aquatica* Becker, 1896
- Notiphila brunipes* (Robineau-Desvoidy, 1830)

= *brunnipes* emend.

Notiphila cinerea Fallén, 1813

Notiphila dorsata Stenhammar, 1844

Notiphila graecula Becker, 1926

= *maculata* misid.

Notiphila major Stenhammar, 1844

Notiphila pollinosa Krivosheina, 1998

Notiphila riparia Meigen, 1830

GYMNOMYZINAE Latreille, 1829

Gymnomyzini Latreille, 1829

ATHYROGLOSSA Loew, 1860

sg. *Athyroglossa* Loew, 1860

Athyroglossa glabra (Meigen, 1830)

MOSILLUS Latreille, 1804

Mosillus subsultans (Fabricius, 1794)

Lipochaetini Becker, 1896

GLENANTHE Haliday, 1839

Glenanthe fuscinervis Becker, 1896

= *ripicola* auct. nec Haliday, 1839

Hecamedini Mathis, 1991

ALLOTRICHOMA Becker, 1896

Allotrichoma bezzii Becker, 1896

= *laterale* misid.

Ochtherini Dahl, 1959

OCHTHERA Latreille, 1802

Ochthera manicata (Fabricius, 1794)

Ochthera mantis (De Geer, 1776)

Discocerinini Cresson, 1925

DISCOCERINA Macquart, 1835

Discocerina obscurella (Fallén, 1813)

DITRICHOPHORA Cresson, 1924

Ditrichophora calceata (Meigen, 1830)

Ditrichophora fuscella (Stenhammar, 1844)

GYMNOCLASIOPA Hendel, 1930

Gymnoclasiopa aurivillii (Becker, 1896)

Gymnoclasiopa bohemanni (Becker, 1896)

Gymnoclasiopa cinerella (Stenhammar, 1844)

= *pulchella* misid.

Gymnoclasiopa nigerrima (Strobl, 1893)

Gymnoclasiopa psilopina (Frey, 1933)

HECAMEDOIDES Hendel, 1917

Hecamedoides glaucellus (Stenhammar, 1844)

- Hecamedoides unispinosus* (Collin, 1943)
POLYTRICHOPHORA Cresson, 1924
Polytrichophora duplosetosa (Becker, 1896)
 ILYTHEINAE Cresson, 1943
 Hyadinini Philips et al. in Cresson, 1949
AXYSTA Haliday, 1839
Axysta cesta (Haliday, 1833)
HYADINA Haliday, 1839
Hyadina guttata (Fallén, 1813)
Hyadina humeralis Becker, 1896
Hyadina rufipes (Meigen, 1830)
 = *nitida* (Macquart, 1835)
Hyadina scutellata (Haliday, 1839)
LYTOGASTER Becker, 1896
Lytogaster abdominalis (Stenhammar, 1844)
NOSTIMA Coquillett, 1900
Nostima picta (Fallén, 1813)
PELINA Haliday, 1839
Pelina aenea (Fallén, 1813)
Pelina aenescens (Stenhammar, 1844)
PHILYGRIA Stenhammar, 1844
Philygria femorata (Stenhammar, 1844)
 = *posticata* misid.
Philygria flavipes (Fallén, 1823)
Philygria interstincta (Fallén, 1813)
 = *maculipennis* (Robineau-Desvoidy, 1830)
 = *sexmaculata* Becker, 1896
Philygria obtecta Becker, 1896
Philygria vittipennis (Zetterstedt, 1838)
 = *nigricauda* Stenhammar, 1844
 = *trilineata* De Meijere, 1907
 Ilytheini Cresson, 1943
ILYTHEA Haliday, 1839
Ilythea spilota (Haliday in Curtis, 1832)
 EPHYDRINAE Zetterstedt, 1837
 Parydrini Wirth & Stone, 1956
EUTAENIONOTUM Oldenberg, 1923
Eutaenionotum guttipenne (Stenhammar, 1843)
PARYDRA Stenhammar, 1844
 = *Napaea* Robineau-Desvoidy, 1830 preocc.
sg. Chaetoapnaea Hendel, 1930
Parydra arctica Clausen, 1971

Parydra fossarum (Haliday, 1833)

Parydra mitis (Cresson, 1930)

Parydra nigritarsis Strobl, 1893

Parydra pusilla (Meigen, 1830)

Parydra quadripunctata (Meigen, 1830)

sg. *Parydra* Stenhammar, 1844

Parydra aquila (Fallén, 1813)

Parydra coarctata (Fallén, 1813)

Parydra nubecula (Becker, 1896)

Ephydrini Zetterstedt, 1837

CALOCOENIA Mathis, 1975

sg. *Leptocoenia* Mathis, 1975

Calocoenia paurosoma (Sturtevant & Wheeler, 1954)

COENIA Robineau-Desvoidy, 1830

Coenia curvicauda (Meigen, 1830)

Coenia palustris (Fallén, 1823)

Coenia vulgata Krivosheina, 2001

EPHYDRA Fallén, 1810

Ephydra macellaria Egger, 1862

Ephydra riparia Fallén, 1813

Ephydra scholtzi Becker, 1896

= *krogerusi* Frey, 1930

PARACOENIA Cresson, 1935

Paracoenia fumosa (Stenhammar, 1844)

SETACERA Cresson, 1930

Setacera aurata (Stenhammar, 1844)

Setacera micans (Haliday, 1833)

Scatellini Wirth & Stone, 1956

HALOSCATELLA Mathis, 1979

Haloscatella dichchaeta (Loew, 1860)

LAMPROSCATELLA Hendel, 1917

Lamproscatella sibilans (Haliday, 1833)

LIMNELLIA Malloch, 1925

Limnellia fallax (Czerny, 1903)

Limnellia quadrata (Fallén, 1813)

Limnellia stenhammari (Zetterstedt, 1846)

PHILOTELMA Becker, 1896

Philotelma defectum (Haliday, 1833)

Philotelma nigripenne (Meigen, 1930)

SCATELLA Robineau-Desvoidy, 1830

sg. *Neoscatella* Malloch, 1933

Scatella crassicauda Becker, 1896

- Scatella silacea* Loew, 1860
Scatella subguttata (Meigen, 1830)
sg. *Scatella* Robineau-Desvoidy, 1830
Scatella obsoleta Loew, 1861
 = *callosicosta* Bezzi, 1895
Scatella paludum (Meigen, 1830)
Scatella stagnalis (Fallén, 1813)
Scatella tenuicosta Collin, 1930
SCATOPHILA Becker, 1896
Scatophila caviceps (Stenhammar, 1844)
Scatophila contaminata (Stenhammar, 1844)
 = *halterata* Becker, 1896
Scatophila cribrata (Stenhammar, 1844)
Scatophila despecta (Haliday, 1839)
 = *hamifera* Becker, 1896
Scatophila iowana Wheeler, 1961
Scatophila mesogramma (Loew, 1869)
Scatophila noctula (Meigen, 1830)
 = *flavitaris* (Zetterstedt, 1846)
 = *laevigata* (Loew, 1860)
 = *silesiaca* Becker, 1896
Scatophila quadriguttata (Meigen, 1830)
 = *variegata* (Loew, 1860)

Excluded species

- Gymnoclasiopa aurifacies* (Strobl, 1893) misidentified
Gymnoclasiopa plumosa (Fallén, 1923) misidentified
Hyadina nigricornis Frey, 1930 not found within present borders
Hydrellia argyrogonis Becker, 1896 misidentified
Hydrellia concolor (Stenhammar, 1844) misidentified
Hydrellia flavicornis (Fallén, 1823) misidentified
Hydrellia incana (Stenhammar, 1844) misidentified
Hydrellia meigeni Zatwarnicki, 1988 misidentified
 = *albiceps* (Meigen, 1830) preocc.
Hydrellia nymphaeae (Stenhammar, 1844) misidentified
Hydrellia tibialis Cresson, 1917 not found within present borders
 = *diadema* Frey, 1930
Notiphila stagnicola (Robineau-Desvoidy, 1830) misidentified
Psilopa pulicaria (Haliday, 1839) misidentified
Scatella lutosa Haliday, 1833 misidentified

Notes

Gymnoclasiopa aurivillii (Becker, 1896) is probably a junior synonym of *Gymnoclasiopa nigerrima* (Strobl, 1893).

Hydrellia. At least two additional species occur in Finland but their proper names are still under investigation.

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Checklist of the families Scathophagidae, Fanniidae and Muscidae of Finland (Insecta, Diptera)

Jere Kahanpää¹, Antti Haarto²

1 Finnish Museum of Natural History, Zoology Unit, P.O. Box 17, FI-00014 University of Helsinki, Finland

2 Zoological Museum, Section of Biodiversity and Environmental Science, Department of Biology, University of Turku, FI-20014 Turku, Finland

Corresponding author: Jere Kahanpää (jere.kahanpaa@helsinki.fi)

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Abstract

A revised checklist of the Scathophagidae, Fanniidae and Muscidae recorded from Finland is presented. *Phaonia amricula* Villeneuve, 1922 is noted from Finland for the first time.

Keywords

Species list, Finland, Diptera, biodiversity, faunistics

Introduction

Four families make up the traditional superfamily Muscoidea: Scathophagidae, Anthomyiidae, Fanniidae and Muscidae. The monophyly of the superfamily has been strongly questioned (Nirmala et al. 2001, Kutty et al. 2010) on the basis of DNA sequence analyses.

Three of the four families of Muscoidea are treated in this paper, the fourth (Anthomyiidae) is covered in a separate paper in this issue of ZooKeys. All three are important components of the Finnish fly fauna as can be seen from the large number of species involved and the fact that the species recorded from the country represent up to one fifth of the world fauna in the case of Scathophagidae.

Table 1. Number of species by family.

Family	Number of species in			Level of knowledge
	World (Pape et al. 2011)	Europe	Finland	
Scathophagidae	419	158	85–86	good
Fanniidae	359	83	61	average
Muscidae	5218	572	307–309	average

Unfortunately the muscoid flies have been poorly collected and studied in Finland in comparison with many other Diptera families. Lauri Tiensuu concentrated on these families during the 1930s (1935, 1938, 1939) and Walter Hackman (1956) reviewed the Finnish Scathophagidae. During the last ten years, both the fanniids (Kahanpää and Haarto 2013) and the muscids (Kahanpää 2013) have attracted some attention in the country. The number of species known from the country has increased markedly since the year 2000.

The Finnish muscoid species were last listed by Hackman (1980).

Checklist

suborder Brachycera Macquart, 1834
 clade Eremoneura Lameere, 1906
 clade Cyclorrhapha Brauer, 1863
 infraorder Schizophora Becher, 1882
 clade Muscaria Enderlein, 1936
 parvorder Calyptratae Robineau-Desvoidy, 1830
 superfamily Muscoidea Latreille, 1802

SCATHOPHAGIDAE Robineau-Desvoidy, 1830

DELININAE Séguy, 1952

DELINA Robineau-Desvoidy, 1830

Delina nigrita (Fallén, 1819)

LEPTOPA Zetterstedt, 1838

Leptopa filiformis Zetterstedt, 1838

MICROSELAPHA Becker, 1894

Micropselapha filiformis (Zetterstedt, 1846)

PARALLELOMMA Strobl, 1894

= *Chylizosoma* Hendel, 1924

Parallelomma medium Becker, 1894

? *Parallelomma paridis* Hering, 1923 (see Notes)

Parallelomma sellatum (Hackman, 1956)

Parallelomma vittatum (Meigen, 1826)

PHROSIA Robineau-Desvoidy, 1830

Phrosia albilabris (Fabricius, 1805)

SCATHOPHAGINAE Robineau-Desvoidy, 1830

ACANTHOCNEMA Becker, 1894

sg. *Clinoceroides* Hendel, 1917

Acanthocnema glaucescens (Loew, 1864)

= *nigripes* Ringdahl, 1936

ACEROCNEMA Becker, 1894

Acerocnema macrocera (Meigen, 1826)

= *tiefi* Becker, 1894

= *pokorny* Becker, 1894

ALLOMYELLA Malloch, 1923

Allomyella albipennis (Zetterstedt, 1838)

Allomyella frigida (Holmgren, 1883)

= *portenkoi* (Stackelberg, 1952) *misid.*

BOSTRICHOPYGA Becker, 1894

Bostrichopyga crassipes (Zetterstedt, 1838)

CHAETOSA Coquillett, 1898

Chaetosa punctipes (Meigen, 1826)

CLEIGASTRA Macquart, 1835

= *Cnemopogon* Rondani, 1856

Cleigastra apicalis (Meigen, 1826)

CONISTERNUM Strobl, 1894

= *Coniosternum* Becker, 1894

Conisternum lapponicum (Ringdahl, 1920)

Conisternum obscurum (Fallén, 1819)

Conisternum tinctinerve (Becker, 1894)

CORDILURA Fallén, 1810

= *Cordylura* Meigen, 1826 *emend.*

sg. *Cordilura* Fallén, 1810

Cordilura aberrans Becker, 1894

Cordilura aemula Collin, 1958

Cordilura atrata Zetterstedt, 1846

Cordilura ciliata Meigen, 1826

Cordilura picipes Meigen, 1826

Cordilura picticornis Loew, 1864

Cordilura proboscidea Zetterstedt, 1838

Cordilura pubera (Linnaeus, 1758)

Cordilura pudica Meigen, 1826

Cordilura rufimana Meigen, 1826

Cordilura socialis (Becker, 1894)

= *freyi* Hackman, 1956

sg. *Cordilurina* James, 1955

= *Parallelomma* Becker, 1894 *preocc.*

- Cordilura albipes* Fallén, 1819
Cordilura fuscipes Zetterstedt, 1838
sg. *Scoliaphleps* Becker, 1894
Cordilura ustulata Zetterstedt, 1838
 = *melanacra* Loew, 1873
COSMETOPUS Becker, 1894
Cosmetopus dentimana (Zetterstedt, 1838)
 = *fulvipes* (Zetterstedt, 1838)
Cosmetopus longa (Walker, 1849)
 = *bergrothi* Becker, 1900 in part
 = *fulvipes* auct. nec (Zetterstedt, 1838)
Cosmetopus ringdabli Andersson, 1974
 = *bergrothi* Becker, 1900 in part
ERNONEURA Becker, 1894
Ernoneura argus (Zetterstedt, 1838)
GONARCTICUS Becker, 1894
Gonarcticus abdominalis (Zetterstedt, 1846)
GONATHERUS Rondani, 1856
Gonatherus planiceps (Fallén, 1826)
GIMNOMERA Rondani, 1866
 = *Cochliarium* Becker, 1894
Gimnomera albipila (Zetterstedt, 1846)
Gimnomera cuneiventris (Zetterstedt, 1846)
Gimnomera dorsata (Zetterstedt, 1838)
Gimnomera hirta Hendel, 1930
Gimnomera tarsea (Fallén, 1819)
HEXAMITOCERA Becker, 1894
Hexamitocera loxoceratum (Fallén, 1826)
HYDROMYZA Fallén, 1823
Hydromyza livens (Fabricius, 1794)
MEGAPHTHALMA Becker, 1894
Megaphthalma pallida (Fallén, 1819)
MEGAPHTHALMOIDES Ringdahl, 1936
Megaphthalmoides unilineatus (Zetterstedt, 1838)
MICROPROSOPA Strobl, 1894
Microprosopa haemorrhoidalis (Meigen, 1826)
Microprosopa lacteipennis Ringdahl, 1920
Microprosopa lineata (Zetterstedt, 1838)
Microprosopa pallidicauda (Zetterstedt, 1838)
NANNA Strobl, 1894
 = *Amaurosoma* Becker, 1894
Nanna armillata (Zetterstedt, 1846)
Nanna articulata (Becker, 1894)

- Nanna bispinosa* (Malloch, 1920)
Nanna brevifrons (Zetterstedt, 1838)
Nanna fasciata (Meigen, 1826)
Nanna flavipes (Fallén, 1819)
 = *minuta* (Becker, 1894)
 ?= *multisetosa* (Hackman, 1956)
Nanna inermis (Becker, 1894)
Nanna leucostoma (Zetterstedt, 1846)
Nanna tibiella (Zetterstedt, 1838)
 = *nigripes* (Zetterstedt, 1846)
NORELLIA Robineau-Desvoidy, 1830
Norellia tipularia (Fabricius, 1794) (see Notes)
NORELLISOMA Hendel, 1910
Norellisoma lituratum (Wiedemann, 1826)
Norellisoma spinimanum (Fallén, 1819)
OKENIELLA Hendel, 1907
Okeniella caudata (Zetterstedt, 1838)
Okeniella dasyprocta (Loew, 1864)
ORTHACHETA Becker, 1894
Orthacheta pilosa (Zetterstedt, 1838)
PLEUROCHAETELLA Vockeroth, 1965
Pleurochaetella simplicipes (Becker, 1900)
POGONOTA Zetterstedt, 1860
sg. Pogonota Zetterstedt, 1860
Pogonota barbata (Zetterstedt, 1838)
sg. Lasioscelus Becker, 1894
Pogonota immunda (Zetterstedt, 1838)
 = *clavatus* (Zetterstedt, 1846)
Pogonota sahlbergi Becker, 1900
SCATHOPHAGA Meigen, 1803
 = *Scathophaga* Fabricius, 1805 emend.
 = *Scopeuma* Meigen, 1800 suppr.
 = *Scatomyza* Fallén, 1810
Scathophaga apicalis Curtis in Ross, 1835
Scathophaga furcata (Say, 1823)
Scathophaga incola Becker, 1900
Scathophaga inquinata (Meigen, 1826)
 = *analisis* Meigen, 1826
Scathophaga litorea (Fallén, 1819)
Scathophaga lutaria (Fabricius, 1794)
Scathophaga obscurinervis Becker, 1900
Scathophaga pictipennis Oldenberg, 1923
Scathophaga scybalaria (Linnaeus, 1758)

Scathophaga stercoraria (Linnaeus, 1758)

Scathophaga suilla (Fabricius, 1794)

SPAZIPHORA Rondani, 1856

Spaziphora hydromyzina (Fallén, 1819)

= *fascipes* (Becker, 1894)

STAEGERIA Rondani, 1856

Staegeria kunzei (Zetterstedt, 1821)

TRICHOPALPUS Rondani, 1856

Trichopalpus fraternus (Meigen, 1826)

Trichopalpus nigribasis Curran, 1927

= *pilirostris* (Ringdahl, 1936)

Trichopalpus obscurellus (Zetterstedt, 1846)

= *subarcticus* (Ringdahl, 1936)

FANNIIDAE Schnabl & Dziezicki, 1911

FANNIA Robineau-Desvoidy, 1830

= *Homalomyia* Bouché, 1834

= *Coelomyia* Haliday, 1840

Fannia aethiops Malloch, 1913

Fannia alpina Pont, 1970

Fannia armata (Meigen, 1826)

Fannia atra (Stein, 1895)

Fannia canicularis (Linnaeus, 1761)

Fannia carbonaria (Meigen, 1826)

Fannia carbonella (Stein, 1895)

Fannia coracina (Loew, 1873)

Fannia corvina (Verrall, 1892)

= *halterata* Ringdahl, 1918

Fannia cothurnata (Loew, 1873)

Fannia difficilis (Stein, 1895)

Fannia fuscitibia Stein, 1920

Fannia fuscula (Fallén, 1825)

Fannia genualis (Stein, 1895)

Fannia gotlandica Ringdahl, 1926

Fannia hirticeps (Stein, 1892)

Fannia hirundinis Ringdahl, 1948

Fannia immutica Collin, 1939

Fannia incisurata (Zetterstedt, 1838)

Fannia latifrontalis Hennig, 1955

Fannia latipalpis (Stein, 1892)

Fannia lepida (Wiedemann, 1817)

= *mutica* (Zetterstedt, 1845)

Fannia leucosticta (Meigen, 1838)

- Fannia limbata* (Tiensuu, 1938)
= *berolinensis* Hennig, 1955
Fannia lucidula (Zetterstedt, 1860)
= *glaucescens* auct. nec (Zetterstedt, 1845)
Fannia lugubrina (Zetterstedt, 1838)
Fannia lustrator (Harris, 1780)
= *hamata* (Macquart, 1835)
Fannia manicata (Meigen, 1826)
Fannia melania (Dufour, 1839)
= *ciliata* (Stein, 1895)
Fannia metallipennis (Zetterstedt, 1838)
= *kowarzi* (Verrall, 1892)
Fannia minutipalpis (Stein, 1895)
Fannia mollissima (Haliday, 1840)
= *spathulata* (Zetterstedt, 1845)
Fannia monilis (Haliday, 1838)
Fannia pallitibia (Rondani, 1866)
Fannia parva (Stein, 1895)
Fannia pauli Pont, 1997
= *nitida* (Stein, 1895) preocc.
Fannia polychaeta (Stein, 1895)
Fannia postica (Stein, 1895)
Fannia posticata (Meigen, 1826)
= *pretiosa* (Schiner, 1862)
Fannia rabdionata Karl, 1940
Fannia ringdablana Collin, 1939
= *umbrosa* auct. nec (Stein, 1895)
Fannia rondanii (Strobl, 1893)
= *carbonaria* (Rondani, 1871) preocc.
= *aerea* misid.
Fannia scalaris (Fabricius, 1794)
= *subscalaris* Zimin, 1946
Fannia serena (Fallén, 1825)
Fannia similis (Stein, 1895)
Fannia slovacica Gregor & Rozkošný, 2005
Fannia sociella (Zetterstedt, 1845)
Fannia spathiophora Malloch 1918
= *nodulosa* Ringdahl, 1926
Fannia speciosa (Villeneuve, 1898)
Fannia stigi Rognes, 1982
Fannia subatripes d'Assis-Fonseca, 1967
Fannia subpellucens (Zetterstedt, 1845)
Fannia subpubescens Collin, 1958

- Fannia tuberculata* (Zetterstedt, 1849)
Fannia umbratica Collin, 1939
Fannia umbrosa (Stein, 1895)
 = *subumbrosa* Ringdahl, 1934
Fannia verrallii (Stein, 1895)
Fannia vesparia (Meade, 1891)
Fannia vespertilionis Ringdahl, 1934
PIEZURA Rondani, 1844
 = *Platycoenosia* Strobl, 1894
Piezura graminicola (Zetterstedt, 1846)
 = *boletorum* (Rondani, 1866)
 = *mikii* (Strobl, 1894)
Piezura pardalina (Rondani, 1866)
 = *graminicola* auct. nec (Zetterstedt, 1846)

MUSCIDAE Latreille, 1802

- ACHANTHIPTERINAE Hennig, 1962
ACHANTHIPTERA Rondani, 1856
Achantiptera rohrelliformis (Robineau-Desvoidy, 1830)
 = *inanis* (Fallén, 1825) preocc.
 COENOSIINAE Verrall, 1888
 tribe Coenosiini Verrall, 1888
COENOSIA Meigen, 1826
 = *Caricea* Robineau-Desvoidy, 1830
 = *Oplogaster* Rondani, 1856
 = *Dexiopsis* Pokorný, 1893
Coenosia acuminata Strobl, 1898
 = *annulipes* Ringdahl, 1932
Coenosia agromyzina (Fallén, 1825)
Coenosia ambulans Meigen, 1826
Coenosia bilineella (Zetterstedt, 1838)
Coenosia campestris (Meigen, 1830)
 = *sexnotata* auct. nec Meigen, 1826
 ? *Coenosia comita* (Huckett, 1936) (see Notes)
 = *ovulifera* Tiensuu, 1938
Coenosia dealbata (Zetterstedt, 1838)
 = *fulvicornis* (Zetterstedt, 1845)
Coenosia flavimana (Zetterstedt, 1845)
 = *albatella* (Zetterstedt, 1849)
Coenosia humilis Meigen, 1826
Coenosia intermedia (Fallén, 1825)
Coenosia lacteipennis (Zetterstedt, 1845)
Coenosia lineatipes (Zetterstedt, 1845)

= *albicornis* misid.

Coenosia means Meigen, 1826

Coenosia mollicula (Fallén, 1825)

Coenosia octopunctata (Zetterstedt, 1838)

Coenosia paludis Tiensuu, 1939

Coenosia pedella (Fallén, 1825)

= *decipiens* Meigen, 1826

Coenosia perpusilla Meigen, 1826

Coenosia pudorosa Collin, 1953

Coenosia pulicaria (Zetterstedt, 1845)

Coenosia pumila (Fallén, 1825)

Coenosia pygmaea (Zetterstedt, 1845)

Coenosia ruficornis Macquart, 1835

= *litoralis* (Zetterstedt, 1846)

Coenosia rufipalpis Meigen, 1826

= *flavicauda* Ringdahl, 1937

Coenosia sallae Tiensuu, 1938

Coenosia testacea (Robineau-Desvoidy, 1830)

= *tricolor* (Zetterstedt, 1845)

= *alleni* d'Assis-Fonseca, 1966

Coenosia tigrina (Fabricius, 1775)

Coenosia trilineella (Zetterstedt, 1838)

= *trilineata* emend.

Coenosia verralli Collin, 1953

= *steini* Verrall, 1912 preocc.

LIMNOSPILA Schnabl, 1902

Limnospila albifrons (Zetterstedt, 1849)

LISPOCEPHALA Pokorný, 1893

Lispocephala alma (Meigen, 1826)

Lispocephala erythrocerata (Robineau-Desvoidy, 1830)

Lispocephala falcitata Collin, 1963

Lispocephala fuscitibia Ringdahl, 1944

Lispocephala pallipalpis (Zetterstedt, 1845)

Lispocephala spuria (Zetterstedt, 1838)

= *vitripennis* Ringdahl, 1951

Lispocephala verna (Fabricius, 1794)

MACRORCHIS Rondani, 1877

Macrorchis meditata (Fallén, 1825)

PSEUDOCOENOSIA Stein, 1916

Pseudocoenosia abnormis Stein, 1916

Pseudocoenosia solitaria (Zetterstedt, 1838)

= *longicauda* (Zetterstedt, 1860)

SCHOENOMYZA Haliday, 1833

- Schoenomyza litorella* (Fallén, 1823)
 tribe Limnophoriini Villeneuve, 1902
LIMNOPHORA Robineau-Desvoidy, 1830
Limnophora nigripes (Robineau-Desvoidy, 1830)
Limnophora pandellei Séguy 1923 (see Notes)
Limnophora riparia (Fallén, 1824)
Limnophora rotundata Collin, 1930
Limnophora tigrina (Am Stein, 1860)
 = *notata* (Fallén, 1823) preocc.
Limnophora triangula (Fallén, 1825)
Limnophora uniseta Stein, 1916
LISPE Latreille, 1796
Lispe consanguinea Loew, 1858
Lispe hydromyzina Fallén, 1825
Lispe litorea Fallén, 1825
Lispe melaleuca Loew, 1847
Lispe pygmaea Fallén, 1825
Lispe tentaculata (De Geer, 1776)
Lispe uliginosa Fallén, 1825
SPILOGONA Schnabl, 1911
Spilogona aerea (Fallén, 1825)
Spilogona albisquama (Ringdahl, 1932)
Spilogona alpica (Zetterstedt, 1845)
Spilogona arenosa (Ringdahl, 1918)
Spilogona atrisquamula Hennig, 1959
Spilogona baltica (Ringdahl, 1918)
Spilogona brunneifrons Ringdahl, 1931
Spilogona brunneisquama (Zetterstedt, 1845)
Spilogona carbonella (Zetterstedt, 1845)
Spilogona contractifrons (Zetterstedt, 1838)
Spilogona denigrata (Meigen, 1826)
Spilogona depressiuscula (Zetterstedt, 1838)
Spilogona depressula (Zetterstedt, 1845)
Spilogona dispar (Fallén, 1823)
 = *funeralis* Rondani, 1866
Spilogona falleni Pont, 1984
 = *litorea* auct. nec (Fallén, 1823)
Spilogona krogerusi (Ringdahl, 1941)
 = *micans* misid.
Spilogona leucogaster (Zetterstedt, 1838)
Spilogona malaisei (Ringdahl, 1920)
Spilogona marginifera Hennig, 1959
 = *marginalis* (Fallén, 1824) preocc.

- Spilogona meadei* (Schnabl, 1915)
Spilogona megastoma (Boheman, 1866)
Spilogona nigriventris (Zetterstedt, 1845)
Spilogona nitidicauda (Schnabl, 1911)
Spilogona novemmaculata (Zetterstedt, 1860)
Spilogona opaca (Schnabl, 1915)
Spilogona pacifica (Meigen, 1826)
 = *vana* (Zetterstedt, 1845)
Spilogona palmeni (Ringdahl, 1935)
Spilogona pseudodispar (Frey, 1915)
 = *spinitibia* (Ringdahl, 1918)
Spilogona pusilla (Huckett, 1932)
Spilogona quinquelineata (Zetterstedt, 1838)
Spilogona semiglobosa (Ringdahl, 1916)
Spilogona sororcula (Zetterstedt, 1845)
 = *zetterstedti* (Ringdahl, 1918) preocc.
Spilogona spectabilis (Tiensuu, 1938)
Spilogona surda (Zetterstedt, 1845)
Spilogona tenuis Hennig, 1959
Spilogona tornensis (Ringdahl, 1926)
Spilogona triangulifera (Zetterstedt, 1838)
Spilogona trianguligera (Zetterstedt, 1838)
 = *insularis* (Collin, 1921)
Spilogona trigonata (Zetterstedt, 1838)
Spilogona tundrae (Schnabl, 1915)
 = *macropyga* (Frey, 1915)
Spilogona tundrica (Schnabl & Dziedzicki, 1911)
Spilogona varsaviensis (Schnabl & Dziedzicki, 1911)
 = *glauca* (Stein, 1916)
Spilogona veterrima (Zetterstedt, 1845)
VILLENEUVIA Schnabl & Dziedzicki, 1911
Villeneuveia aestuum (Villeneuve, 1902)
 AZELIINAE Robineau-Desvoidy, 1830
 tribe Azeliini Robineau-Desvoidy, 1830
AZELIA Robineau-Desvoidy, 1830
Azelia aterrima (Meigen, 1826)
Azelia cilipes (Haliday, 1838)
Azelia gibbera (Meigen, 1826)
Azelia monodactyla Loew, 1874
Azelia nebulosa Robineau-Desvoidy, 1830
 = *macquarti* (Staeger in Schiødte, 1843)
Azelia trigonica Hennig, 1956
 = *nuda* Hennig, 1956

Azelia triquetra (Wiedemann, 1817)

Azelia zetterstedtii Rondani, 1866

DRYMEIA Meigen, 1826

= *Pogonomyia* Rondani, 1871

= *Trichopticoides* Ringdahl, 1931

Drymeia hamata (Fallén, 1823)

Drymeia tetra (Meigen, 1826)

Drymeia vicana (Harris, 1780)

= *decolor* (Fallén, 1824)

HYDROTAEA Robineau-Desvoidy, 1830

= *Ophyra* Robineau-Desvoidy, 1830

= *Lasiops* Meigen, 1838

Hydrotaea aenescens (Wiedemann, 1830)

Hydrotaea albipuncta (Zetterstedt, 1845)

Hydrotaea anxia (Zetterstedt, 1838)

= *bispinosa* (Zetterstedt, 1845)

Hydrotaea armipes (Fallén, 1825)

= *occulta* (Meigen, 1826)

Hydrotaea basdeni Collin, 1939

Hydrotaea borussica Stein, 1899

Hydrotaea cyrtoneurina (Zetterstedt, 1845)

Hydrotaea dentipes (Fabricius, 1805)

Hydrotaea diabolus (Harris, 1780)

= *ciliata* (Fabricius, 1794) preocc.

= *bimaculata* (Meigen, 1826)

Hydrotaea floccosa Macquart, 1835

= *armipes* auct. nec (Fallén, 1825)

Hydrotaea ignava (Harris, 1780)

= *leucostoma* (Wiedemann, 1817)

Hydrotaea irritans (Fallén, 1823)

Hydrotaea meridionalis Portschinsky, 1882

Hydrotaea meteorica (Linnaeus, 1758)

Hydrotaea militaris (Meigen, 1826)

Hydrotaea nidicola Malloch, 1925

Hydrotaea palaestrica (Meigen, 1826)

Hydrotaea pandellei Stein, 1899

Hydrotaea parva Meade, 1889

Hydrotaea pellucens Portschinsky, 1879

Hydrotaea pilipes Stein, 1903

Hydrotaea pilitibia Stein, 1916

Hydrotaea ringdahli Stein, 1916

Hydrotaea scambus (Zetterstedt, 1838)

Hydrotaea similis Meade, 1887

Hydrotaea tuberculata Rondani, 1866

Hydrotaea velutina Robineau-Desvoidy, 1830

POTAMIA Robineau-Desvoidy, 1830

= *Dendrophaonia* Malloch, 1923

Potamia littoralis Robineau-Desvoidy, 1830

= *querceti* (Bouché, 1834)

THRICOPS Rondani, 1856

= *Alleostylus* Schnabl, 1888

Thricops aculeipes (Zetterstedt, 1838)

Thricops albibasalis (Zetterstedt, 1849)

= *sudeticus* auct. nec (Schnabl, 1888)

Thricops coquilletti (Malloch, 1920)

Thricops cunctans (Meigen, 1826)

= *hirsutululus* auct. nec (Zetterstedt, 1838)

Thricops diaphanus (Wiedemann, 1817)

Thricops foveolatus (Zetterstedt, 1845)

Thricops genarum (Zetterstedt, 1838)

= *sundewalli* (Zetterstedt, 1845)

Thricops hirtulus (Zetterstedt, 1838)

= *subrostratus* (Zetterstedt, 1845)

Thricops innocuus (Zetterstedt, 1838)

Thricops lividiventris (Zetterstedt, 1845)

Thricops longipes (Zetterstedt, 1845)

Thricops nigrifrons (Robineau-Desvoidy, 1830)

Thricops nigritellus (Zetterstedt, 1838)

Thricops rostratus (Meade, 1882)

Thricops rufisquamus (Schnabl, 1915)

= *penicillatus* (Ringdahl, 1926)

Thricops semicinereus (Wiedemann, 1817)

Thricops separ (Zetterstedt, 1845)

Thricops simplex (Wiedemann, 1817)

tribe Reinwardtiini Brauer & Bergenstamm, 1889

MUSCINA Robineau-Desvoidy, 1830

Muscina angustifrons (Loew, 1858)

Muscina levida (Harris, 1780)

= *assimilis* (Fallén, 1823)

Muscina pascuorum (Meigen, 1826)

Muscina prolapsa (Harris, 1780)

= *pabulorum* (Fallén, 1817)

Muscina stabulans (Fallén, 1817)

MUSCINAE Latreille, 1802

tribe Muscini Latreille, 1802

EUDASYPHORA Townsend, 1911

- Eudasyphora cyanicolor* (Zetterstedt, 1845)
Eudasyphora zimini (Hennig, 1963)
MESEMBRINA Meigen, 1826
 = *Hypodermodes* Townsend, 1912
Mesembrina intermedia Zetterstedt, 1848?
Mesembrina meridiana (Linnaeus, 1758)
Mesembrina mystacea (Linnaeus, 1758)
Mesembrina resplendens Wahlberg, 1844
MORELLIA Robineau-Desvoidy, 1830
sg. Morellia Robineau-Desvoidy, 1830
Morellia aenescens Robineau-Desvoidy, 1830
Morellia hortorum (Fallén, 1817)
Morellia podagrica (Loew, 1857)
sg. Ziminiella Nihei & Carvalho, 2007
Morellia simplex (Loew, 1857)
MUSCA Linnaeus, 1758
Musca autumnalis De Geer, 1776
 = *corvina* Fabricius, 1781
Musca domestica Linnaeus, 1758
Musca tempestiva Fallén, 1817
NEOMYIA Walker, 1859
 = *Orthellia* Robineau-Desvoidy, 1863
Neomyia cornicina (Fabricius, 1781)
 = *caesarion* (Meigen, 1826)
 = *fennica* (Frey, 1909)
Neomyia viridescens (Robineau-Desvoidy, 1830)
 = *cornicina* auct. nec (Fabricius, 1781)
POLIETES Rondani, 1866
Polietes domitor (Harris, 1780)
 = *albolineatus* (Fallén, 1823)
Polietes lardarius (Fabricius, 1781)
Polietes nigrolimbatus (von Bonsdorff, 1866)
Polietes steinii (Ringdahl, 1913)
PYRELLIA Robineau-Desvoidy, 1830
Pyrellia vivida Robineau-Desvoidy, 1830
 = *cadaverina* auct. nec (Linnaeus, 1758)
 tribe Stomoxyini Meigen, 1824
HAEMATOBIA Le Peletier & Serville, 1828
 = *Lyperosia* Rondani, 1856
Haematobia irritans (Linnaeus, 1758)
HAEMATOBOSCA Bezzi, 1907
Haematobosca alcis Snow, 1891
 = *crassipalpis* (Ringdahl, 1920)

Haematobosca stimulans (Meigen, 1824)

STOMOXYS Geoffroy, 1762

Stomoxys calcitrans (Linnaeus, 1758)

MYDAEINAE Verrall, 1888

GRAPHOMYA Robineau-Desvoidy, 1830

Graphomya maculata (Scopoli, 1763)

Graphomya minor Robineau-Desvoidy, 1830

GYMNODIA Robineau-Desvoidy, 1863

= *Brontaea* Kowarz, 1873

Gymnodia humilis (Zetterstedt, 1860)

HEBECNEMA Schnabl, 1889

Hebecnema fumosa (Meigen, 1826)

Hebecnema nigra (Robineau-Desvoidy, 1830)

= *vespertina* auct. nec (Fallén, 1823)

Hebecnema nigricolor (Fallén, 1825)

Hebecnema umbratica (Meigen, 1826)

Hebecnema vespertina (Fallén, 1823)

= *affinis* Malloch, 1921

MYDAEA Robineau-Desvoidy, 1830

Mydaea affinis Meade, 1891

= *discimana* Malloch, 1920

Mydaea ancilla (Meigen, 1826)

Mydaea anicula (Zetterstedt, 1860)

Mydaea corni Scopoli, 1763

= *pagana* (Fabricius, 1794) preocc.

= *scutellaris* Robineau-Desvoidy, 1830

Mydaea deserta (Zetterstedt, 1845)

Mydaea detrita (Zetterstedt, 1845)

= *electa* (Zetterstedt, 1860)

Mydaea humeralis Robineau-Desvoidy, 1830

= *tincta* (Zetterstedt, 1845)

Mydaea nebulosa (Stein, 1893)

Mydaea obscurella Malloch, 1921

= *bengtssoni* Ringdahl, 1924

Mydaea orthonevra (Macquart, 1835)

= *detrita* auct. nec (Zetterstedt, 1845)

Mydaea palpalis Stein, 1916

Mydaea setifemur Ringdahl, 1924

Mydaea sootryeni Ringdahl, 1928

Mydaea urbana (Meigen, 1826)

MYOSPILA Rondani, 1856

Myospila bimaculata (Macquart, 1834)

Myospila meditabunda (Fabricius, 1781)

OPSOLASIA Coquillett, 1910*Opsolasia orichalcea* (Zetterstedt, 1849)

PHAONIINAE Malloch, 1917

tribe Phaoniini Malloch, 1917

HELINA Robineau-Desvoidy, 1830*Helina abdominalis* (Zetterstedt, 1846)*Helina allotalla* (Meigen, 1830)*Helina annosa* (Zetterstedt, 1838)*Helina atricolor* (Fallén, 1825)= *denudata* (Zetterstedt, 1845)= *denutata* emend.*Helina bohemani* (Ringdahl, 1916)*Helina celsa* (Harris, 1780)= *quadrimaculata* (Fallén, 1823) preocc.= *quadrimaculella* Hennig, 1957? *Helina ciliata* Karl, 1929 (see Notes)*Helina ciliatocosta* (Zetterstedt, 1845)= *ciliatocostata* emend.*Helina cilipes* (Schnabl, 1902)*Helina cinerella* (van der Wulp, 1867)= *vanderwulpi* (Schnabl, 1888)= *calceata* misid.*Helina confinis* (Fallén, 1825)= *anceps* (Zetterstedt, 1838)*Helina consimilis* (Fallén, 1825)*Helina cothurnata* (Rondani, 1866)= *obscuripes* auct. nec (Zetterstedt, 1845)*Helina daicles* (Walker, 1849)= *binotata* (Zetterstedt, 1845)*Helina depuncta* (Fallén, 1825)*Helina evecata* (Harris, 1780)= *lucorum* (Fallén, 1823) preocc.= *laetifica* (Robineau-Desvoidy, 1830)*Helina flavisquama* (Zetterstedt, 1849)*Helina fratercula* (Zetterstedt, 1845)*Helina fulvisquama* (Zetterstedt, 1845)*Helina impuncta* (Fallén, 1825)*Helina latitarsis* Ringdahl, 1924*Helina laxifrons* (Zetterstedt, 1860)*Helina longicornis* (Zetterstedt, 1838)*Helina luteisquama* (Zetterstedt, 1845)*Helina maculipennis* (Zetterstedt, 1845)= *obscuripes* (Zetterstedt, 1845)

- Helina obscurata* (Meigen, 1826)
Helina pertusa (Meigen, 1826)
Helina protuberans (Zetterstedt, 1845)
Helina pubiseta (Zetterstedt, 1845)
Helina quadrinotata (Meigen, 1826)
Helina quadrum (Fabricius, 1805)
Helina reversio (Harris, 1780)
= *duplicata* (Meigen, 1826)
= *duplaris* auct. nec (Zetterstedt, 1845)
= *communis* (Robineau-Desvoidy, 1830)
Helina setiventris Ringdahl, 1924
Helina sexmaculata (Preyßler, 1791)
= *uliginosa* (Fallén, 1825) preocc.
= *punctata* (Robineau-Desvoidy, 1830)
Helina spinicosta (Zetterstedt, 1845)
Helina squalens (Zetterstedt, 1838)
= *borealis* (Zetterstedt, 1838)
Helina subvittata (Séguy, 1923)
= *rothi* Ringdahl, 1939
= *marmorata* auct. nec (Zetterstedt, 1860)
Helina tetrastigma (Meigen, 1826)
= *flagripes* (Rondani, 1866)
Helina trivittata (Zetterstedt, 1860)
= *atripes* (Meade, 1889)
Helina veterana (Zetterstedt, 1838)
Helina vicina (Czerny, 1900)
= *suecica* Ringdahl, 1924
LOPHOSCELES Ringdahl, 1922
Lophosceles cinereiventris (Zetterstedt, 1845)
= *cristata* (Zetterstedt, 1845)
Lophosceles frenatus (Holmgren, 1872)
Lophosceles hians (Zetterstedt, 1838)
Lophosceles mutatus (Fallén, 1825)
PHAONIA Robineau-Desvoidy, 1830
= *Wahlgrenia* Ringdahl, 1929
= *Dialytina* Ringdahl, 1945
Phaonia aeneiventris (Zetterstedt, 1845)
= *cinctinervis* (Zetterstedt, 1860)
Phaonia alpicola (Zetterstedt, 1845)
Phaonia amabilis (Meigen, 1826)
Phaonia amicula Villeneuve, 1922 (see Notes)
Phaonia angelicae (Scopoli, 1763)
= *basalis* (Zetterstedt, 1838)

- Phaonia angulicornis* (Zetterstedt, 1838)
= *erinacea* (Fallén, 1824)
Phaonia apicalis Stein, 1914
Phaonia atriceps (Loew, 1858)
Phaonia atrocyanea Ringdahl, 1916
Phaonia canescens Stein, 1916
Phaonia consobrina (Zetterstedt, 1838)
Phaonia czernyi Hennig, 1963
= *steinii* Czerny, 1900 preocc.
Phaonia errans (Meigen, 1826)
= *erratica* (Fallén, 1825) preocc.
Phaonia erronea (Schnabl, 1887)
Phaonia falleni (Michelsen, 1977)
= *vagans* (Fallén, 1825) preocc.
Phaonia fugax Tiensuu, 1946
Phaonia fuscata (Fallén, 1825)
Phaonia gobertii (Mik, 1881)
Phaonia gracilis Stein, 1916
Phaonia grandaeva (Zetterstedt, 1845)
Phaonia halterata (Stein, 1893)
Phaonia hybrida (Schnabl, 1888)
Phaonia incana (Wiedemann, 1817)
Phaonia jaroschewskii (Schnabl, 1888)
= *crinipes* Stein, 1913
Phaonia kowarzii (Schnabl, 1886)
= *fulvicornis* Tiensuu, 1936
Phaonia laeta (Fallén, 1823)
Phaonia latipalpis Schnabl, 1911
= *umbraticola* d'Assis-Fonseca, 1957
Phaonia longicornis Stein, 1916
Phaonia lugubris (Meigen, 1826)
= *morio* (Zetterstedt, 1845)
Phaonia magnicornis (Zetterstedt, 1845)
Phaonia meigeni Pont, 1986
= *lugubris* auct. nec (Meigen, 1826)
Phaonia mystica (Meigen, 1826)
= *vittifera* (Zetterstedt, 1845)
Phaonia nymphaearum (Robineau-Desvoidy, 1830)
= *nitida* (Macquart, 1835)
Phaonia pallida (Fabricius, 1787)
Phaonia pallidisquama (Zetterstedt, 1849)
Phaonia palpata (Stein, 1897)
Phaonia perditata (Meigen, 1830)
Phaonia pratensis (Robineau-Desvoidy, 1830)

- = *laeta* auct. nec (Fallén, 1923)
- Phaonia rufipalpis* (Macquart, 1835)
- Phaonia rufiventris* (Scopoli, 1763)
 - = *populi* (Meigen, 1826)
- Phaonia serva* (Meigen, 1826)
- Phaonia steinii* (Strobl, 1898)
- Phaonia subfuscinervis* (Zetterstedt, 1838)
- Phaonia subventa* (Harris, 1780)
 - = *variegata* (Meigen, 1826)
- Phaonia taigensis* Zinovjev, 1987
- Phaonia tiefii* Schnabl, 1888
- Phaonia trimaculata* (Bouché)
 - = *servaeformis* Ringdahl, 1916
- Phaonia tuguriorum* (Scopoli, 1763)
 - = *signata* (Meigen, 1826)
- Phaonia valida* (Harris, 1780)
 - = *viarum* (Robineau-Desvoidy, 1830)
 - = *erratica* auct. nec (Fallén, 1825)
- Phaonia villana* Robineau-Desvoidy, 1830
 - = *mystica* auct. nec (Meigen, 1826)
- Phaonia vivida* (Rondani, 1870)
 - = *austriaca* (Czerny, 1900)
- Phaonia wahlbergi* Ringdahl, 1930
- Phaonia zugmayeriae* (Schnabl, 1888)
 - ?= *humeralis* (Zetterstedt, 1845)
 - = *humerella* (Stein, 1900)

Excluded species

- Coenosia femoralis* (Robineau-Desvoidy, 1830) misidentified
- Fannia barbata* (Stein, 1892) not found within present borders
- Fannia lineata* (Stein, 1895) not found within present borders
- Fannia nigra* Malloch, 1910 not found within present borders
- Hydrotaea glabricula* (Fallén, 1825)
- Limnophora pollinifrons* Stein, 1916 not found within present borders
- Phaonia bitincta* (Rondani, 1866) misidentified
- Scathophaga calida* Haliday in Curtis, 1832 not found within present borders
- Spilogona acrostichalis* (Stein, 1916)
- Spilogona norvegica* (Ringdahl, 1932)
- Spilogona obscuripennis* (Stein, 1916) not found within present borders
- Spilogona septemnotata* (Zetterstedt, 1845) misidentified
- Spilogona setigera* (Stein, 1907)
- Spilogona spininervis* (Villeneuve, 1922)

Notes

***Coenosia comita* (Huckett, 1936).** Collected only from Salla. The type locality of *C. ovulivora* Tiensuu, Vuorijärvi, is now Russian territory (Tiensuu 1938). A second specimen, also taken in 1936 by R. Krogerus (in MZH), bears only the label 'Salla' and probably also originates from the vicinity of Vuorijärvi, but it is possible that it was collected from the Finnish part of Salla, a municipality split between Russia and Finland in 1944.

***Helina ciliata* Karl, 1929.** Ringdahl (1952), quoting "Tiensuu's papers", lists this species from Finland. We could not locate the original record in Tiensuu's published works or among the available collection specimens. It seems possible Ringdahl made a mistake in his tables. The species is also listed as Finnish by Hackman (1980), again without any details.

***Limnophora pandellei* Ségué, 1923.** Only females have been found in Finland. The identification remains slightly doubtful (Kahanpää 2013).

***Norellia tipularia* (Fabricius, 1794).** This species was first recorded from Finland by Winqvist (2011). Šifner (2003, 2008) considers *N. tipularia* a nomen dubium and probably synonymous with *N. spinipes* Meigen, but Ozerov and Krivosheina (2011) disagree and provide a detailed diagnosis.

***Parallelomma paridis* Hering, 1923.** This name was synonymized with *P. vittatum* (Meigen) by Šifner (1978). Ozerov (2010, 2014) examined the types of *P. paridis* and upheld the synonymy. Not everyone agrees with this synonymy (Nelson 1990). Finnish CO1 DNA fingerprints (Kahanpää, unpublished) of larvae on *Paris* (Liliaceae) and adults caught among *Dactylorhiza* (Orchidaceae) suggest that two species are involved.

***Phaonia amacula* Villeneuve, 1922.** New to Finland. Recorded as *Phaonia* sp. nr. *halterata* by Winqvist (2011): *Ab*: Turku, Ruissalo (67093:32336), 3.vii.2008, leg K. Winqvist, 1 male.

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Checklist of the family Anthomyiidae (Diptera) of Finland

Verner Michelsen¹

¹ *Natural History Museum of Denmark (Zoological Museum), Universitetsparken 15, DK-2100, Copenhagen Ø, Denmark*

Corresponding author: *Verner Michelsen* (vmichelsen@snm.ku.dk)

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Abstract

An updated checklist of the the genera and species of Anthomyiidae (Diptera) found in Finland is provided.

Keywords

Checklist, Finland, Diptera, Anthomyiidae

Introduction

The family Anthomyiidae is a large and taxonomically difficult group of flies that has for the same reason suffered from unstable taxonomy and nomenclature. A checklist of the anthomyiid species known from pre-war Finland was compiled by their leading regional specialist of calyptrate flies Lauri Tiensuu (1906–1980) and published in Frey et al. (1941). The Anthomyiidae were then not recognized as a separate family but combined with the fanniid and true muscid flies in a comprehensive Muscidae family equivalent of the present Muscoidea less Scathophagidae. Tiensuu's list included confirmed records of 199 anthomyiid species classified in 41 genera and subgenera. No less than 34% of the species names and 58% of the genus-group names in that list are

presently replaced by other names for taxonomic and/or nomenclatorial reasons. Most changes were introduced by Hennig (1966–1976) and Michelsen (1985).

The next Finnish checklist of Anthomyiidae by Hackman (1980) was prepared under the influence by two major events. Firstly, 10% of the area of pre-war Finland, notably a major part of Finnish Karelia, had been ceded to the Soviet Union. In consequence, Hackman's list included fewer species: 175 (too few actually, as he missed a few species recorded by Tiensuu (1936) from present Finland). Secondly, the appearance of Hennig's (1966–1976) major revision of Palearctic Anthomyiidae had resulted in numerous name changes and redefinitions of both species and genera. Hackman's list was updated according to Hennig's proposals except for the splitting of newly recognized species complexes.

After the appearance of the 1941-checklist, L. Tiensuu had stopped publishing taxonomic and faunistic papers on Finnish Diptera altogether, although he stayed active all his life as a skilled collector of Finnish Diptera. Apart from W. Hennig's study of some type specimens in the Helsinki Museum and a project on mushroom feeding *Pegomya* (Hackman 1976, 1979; Hackman and Meinander 1979) Finnish anthomyiids were given little attention until the present author in the early 1980's began a long-term study of the species composition and distribution of Anthomyiidae in Fennoscandia and Denmark.

The web-based database *Fauna Europaea* ver. 1.0 released in 2004 included anthomyiid checklists (Michelsen 2004) for all parts of Europe. It was based extensively on literature records, but in respect to Finland and the other Scandinavian countries almost exclusively on personally verified records. The Diptera collection of the Finnish Museum of Natural History, University of Helsinki (MZH) provided most of the data on the Finnish anthomyiid fauna. After several updates, most recently ver. 2.4 from January 2011, the Finnish list of Anthomyiidae (Michelsen 2011) had grown substantially to 273 species (<http://www.faunaeur.org/>). The anthomyiid checklist given below has been further expanded and now contains 289 species. Comparisons with the better known anthomyiid fauna of Sweden and the presence of some species awaiting description suggest that the anthomyiid fauna of Finland may totally comprise 315–325 species.

All nomenclatorial and taxonomic adjustments (new synonyms, misidentifications, changed circumscriptions of species and genera) made since the appearance of Hackman's (1980) checklist are indicated in the following, updated checklist. In agreement with *Fauna Europaea* the genera are listed alphabetically, as existing attempts to split the family into subfamilies and tribes are preliminary and in part poorly substantiated.

Number of described species:

World: Presently *c.* 2000.

Europe: 508 (Michelsen 2011)

Finland: 289 (present paper)

Faunistic knowledge level in Finland: average

Checklist

superfamily Muscoidea Latreille, 1802

family **ANTHOMYIIDAE** Robineau-Desvoidy, 1830

ADIA Robineau-Desvoidy, 1830

= *Paregle* auct. p. p.

Adia cinerella (Fallén, 1825)

ALLIOPSIS Schnabl & Dziedzicki, 1911

= *Paraprosalpia* Villeneuve, 1922

Alliopsis albipennis (Ringdahl, 1928)

Alliopsis aldrichi (Ringdahl, 1934)

Alliopsis atronitens (Strobl, 1893)

Alliopsis benanderi (Ringdahl, 1926)

Alliopsis billbergi (Zetterstedt, 1838)

Alliopsis brunneigena (Schnabl, 1915)

= *incisa* Ringdahl, 1926

Alliopsis conifrons (Zetterstedt, 1845)

Alliopsis denticauda (Zetterstedt, 1838)

Alliopsis dentiventris (Ringdahl, 1918)

Alliopsis fractiseta (Stein, 1908)

Alliopsis glacialis (Zetterstedt, 1845)

Alliopsis longipennis (Ringdahl, 1918)

Alliopsis maculifrons (Zetterstedt, 1838)

Alliopsis moerens (Zetterstedt, 1838)

Alliopsis sepiella (Zetterstedt, 1845)

Alliopsis silvestris (Fallén, 1824)

Alliopsis teriolensis (Pokorný, 1893)

= *borealis* Stein, 1916

ANTHOMYIA Meigen, 1803

= *Craspedochaeta* Macquart, 1851

= *Craspedochaeta* Scudder, 1884 (emend.)

= *Chelisia* Rondani, 1856

Anthomyia canningsi Griffiths, 2001

Anthomyia confusanea Michelsen in Michelsen & Báez, 1985

= *pullula* auct. p. p.

Anthomyia imbrida Rondani, 1866

= *pluvialis* auct. p. p.

Anthomyia liturata (Robineau-Desvoidy, 1830)

= *pullula* Zetterstedt, 1845

Anthomyia mimetica (Malloch, 1918)

= *angulata* Tiensuu, 1938

Anthomyia monilis (Meigen, 1826)

- Anthomyia plurinotata* Brullé, 1832
Anthomyia pluvialis (Linnaeus, 1758)
Anthomyia procellaris Rondani, 1866
 = *pluvialis* auct. p. p.
BOREOPHORBLA Michelsen, 1987
Boreophorbia hirtipes (Stein, 1907)
BOTANOPHILA Lioy, 1864
 = *Pegohylemyia* Schnabl, 1911
Botanophila apiciseta (Ringdahl, 1933)
Botanophila betarum (Lintner, 1883)
 = *macra* Karl, 1940
Botanophila biciliaris (Pandellé, 1900)
Botanophila bidens (Ringdahl, 1933)
Botanophila brunneilinea (Zetterstedt, 1845)
Botanophila cognata Suwa, 2011
 = *subnitida* Malloch, 1920?
Botanophila discreta (Meigen, 1826)
 = *striolata* auct. p. p.
Botanophila dissecta (Meigen, 1826)
Botanophila estonica (Elberg, 1970)
 = *varicolor* auct. p. p.
Botanophila fugax (Meigen, 1826)
Botanophila gemmata (Zetterstedt, 1860)
Botanophila gnava (Meigen, 1826)
Botanophila hucketti (Ringdahl, 1935)
Botanophila impudica (Rondani, 1866)
 = *varicolor* auct. p. p.
Botanophila laterella (Collin, 1967)
Botanophila latifrons (Zetterstedt, 1845)
 = *humeralis* Hennig, 1970
Botanophila lobata (Collin, 1967)
Botanophila maculipes (Zetterstedt, 1845)
 = *pseudomaculipes* Strobl, 1893
Botanophila miniatura (Huckett, 1965)
Botanophila nigra Michelsen, 2009
Botanophila petrophila (Ringdahl, 1926)
Botanophila phrenione (Séguy, 1937)
Botanophila profuga (Stein, 1916)
Botanophila relativa (Huckett, 1965)
Botanophila rubrifrons (Ringdahl, 1933)
Botanophila rubrigena (Schnabl, 1915)
Botanophila salicis (Ringdahl, 1918)
Botanophila sericea (Malloch, 1920)

= *obscura* auct. nec Macquart, 1835

Botanophila silvatica (Robineau-Desvoidy, 1830)

Botanophila sonchi (Hardy, 1872)

Botanophila spinosa (Rondani, 1866)

Botanophila striolata (Fallén, 1824)

Botanophila trapezina (Zetterstedt, 1845)

= *varicolor* auct. p. p.

Botanophila unicolor (Ringdahl, 1932)

Botanophila varicolor (Meigen, 1826)

Botanophila verticella (Zetterstedt, 1838)

= *lineatula* Karl, 1928

CALYTHEA Schnabl & Dziedzicki, 1911

Calythea nigricans (Robineau-Desvoidy, 1830)

CHIASTOCHETA Pokorný, 1889

Chiastocheta dentifera Hennig, 1953

Chiastocheta inermella (Zetterstedt, 1838)

= *trollii* auct. p. p.

Chiastocheta macropyga Hennig, 1953

Chiastocheta trollii (Zetterstedt, 1845)

CHIROSIA Rondani, 1856

= *Craspedochaeta* auct. p. p.

Chirosia albitarsis (Zetterstedt, 1845)

Chirosia betuleti (Ringdahl, 1935)

Chirosia bisinuata (Tiensuu, 1939)

Chirosia cinerosa (Zetterstedt, 1845)

Chirosia crassiseta Stein, 1908

Chirosia flavipennis (Fallén, 1823)

Chirosia griseifrons (Séguy, 1923)

Chirosia grossicauda Strobl, 1901

= *parvicornis* auct. nec Zetterstedt, 1845

Chirosia histricina (Rondani, 1866)

= *hystrix* Brischke, 1880

Chirosia nigripes Bezzi, 1895

= *albifrons* Tiensuu, 1938

Chirosia similata (Tiensuu, 1939)

DELIA Robineau-Desvoidy, 1830

Delia abruptiseta (Ringdahl, 1935)

Delia albula (Fallén, 1825)

Delia angustaeformis (Ringdahl, 1933)

Delia angustifrons (Meigen, 1826)

Delia antiqua (Meigen, 1826)

Delia brassicaeformis (Ringdahl, 1926)

Delia brunnescens (Zetterstedt, 1845)

- Delia cardui* (Meigen, 1826)
Delia carduiformis (Schnabl in Schnabl & Dziedzicki, 1911)
Delia coarctata (Fallén, 1825)
Delia coarctoides Michelsen, 2007
Delia cregyoglossa (Huckett, 1965)
= *turcica* Hennig, 1974
Delia criniventris (Zetterstedt, 1860)
Delia cuneata Tiensuu, 1946
Delia diluta (Stein, 1916)
Delia echinata (Séguy, 1923)
Delia fabricii (Holmgren, 1872)
Delia flavogrisea (Ringdahl, 1926)
Delia floralis (Fallén, 1824)
Delia florilega (Zetterstedt, 1845)
Delia frontella (Zetterstedt, 1838)
Delia hirtitibia (Stein, 1916)
Delia judicariae (Pokorny, 1893)
= *flavifrons* auct. p. p.
Delia lamelliseta (Stein, 1900)
Delia linearis (Stein, 1898)
= *flabellifera* Pandellé, 1900
Delia lineariventris (Zetterstedt, 1845)
Delia longicauda (Strobl, 1898)
Delia lophota (Pandellé, 1900)
= *nuda* Strobl, 1901
Delia martini Griffiths, 1993
Delia nigrescens (Rondani, 1877)
Delia nudicosta (Ringdahl, 1949)
Delia pallipennis (Zetterstedt, 1838)
= *candens* Zetterstedt, 1845
Delia penicilliventris Ackland, 2010
= *penicillaris* auct. nec Rondani, 1866
Delia pilifemur (Ringdahl, 1933)
Delia piliventris (Pokorny, 1889)
Delia planipalpis (Stein, 1898)
Delia platura (Meigen, 1826)
Delia pruinosa (Zetterstedt, 1845)
= *flavifrons* Zetterstedt, 1860
Delia radicum (Linnaeus, 1758)
= *brassicae* Wiedemann, 1817
Delia rimiventris Michelsen, 2007
Delia rondanii (Ringdahl, 1918)
Delia setigera (Stein, 1920)

- Delia sileni* Michelsen, 2012
 = *flavifrons* auct. p. p.
Delia subalpina (Ringdahl, 1926)
Delia tarsata (Ringdahl, 1918)
Delia tenuiventris (Zetterstedt, 1860)
 = *angustitarsis* Malloch, 1920
Delia tumidula (Ringdahl, 1949)
Delia uniseriata (Stein, 1914)
EGLE Robineau-Desvoidy, 1830
Egle atomaria (Zetterstedt, 1845)
Egle brevicornis (Zetterstedt, 1838)
Egle ciliata (Walker, 1849)
 = *muscaria* auct. nec Fabricius, 1794
Egle concomitans (Pandellé, 1900)
Egle ignobilis Michelsen, 2009
Egle inermis Ackland, 1970
Egle lyneborghi Ackland & Griffiths in Griffiths, 2003
Egle minuta (Meigen, 1826)
Egle parva Robineau-Desvoidy, 1830
Egle parvaeformis Schnabl in Schnabl & Dziedzicki, 1911
Egle pilitibia (Ringdahl, 1918)
Egle rhinotmeta (Pandellé, 1900)
Egle steini Schnabl in Schnabl & Dziedzicki, 1911
Egle subarctica (Huckett, 1965)
EMMESOMYIA Malloch, 1917
Emmesomyia grisea (Robineau-Desvoidy, 1830)
 = *socia* auct. p. p.
Emmesomyia socia (Fallén, 1825)
EUSTALOMYIA Kowarz, 1873
Eustalomyia festiva (Zetterstedt, 1845)
Eustalomyia hilaris (Fallén, 1823)
Eustalomyia histrio (Zetterstedt, 1838)
Eustalomyia vittipes (Zetterstedt, 1845)
EUTRICHOTA Kowarz, 1893
 = *Eremomyia* Stein, 1898
 = *Pegomyza* Schnabl & Dziedzicki, 1911
 = *Arctopegomyia* Ringdahl, 1938
Eutrichota frigida (Zetterstedt, 1845)
Eutrichota labradorensis (Malloch, 1920)
Eutrichota longimana (Pokorny, 1887)
Eutrichota pilimana (Ringdahl, 1918)
Eutrichota praepotens (Wiedemann, 1817)
Eutrichota schineri (Schnabl, 1910)

- = *socculata* auct. nec Zetterstedt, 1845
Eutrichota socculata (Zetterstedt, 1845)
 = *consanguinea* Tiensuu, 1938
Eutrichota tunicata (Zetterstedt, 1846)
FUCELLIA Robineau-Desvoidy, 1842
Fucellia fucorum (Fallén, 1819)
Fucellia griseola (Fallén, 1819)
Fucellia tergina (Zetterstedt, 1845)
HETEROSTYLODES Hennig, 1967
Heterostylodes macrura (Schnabl in Schnabl & Dziedzicki, 1911)
Heterostylodes nominabilis (Collin, 1947)
 = *pratensis* auct. p. p.
Heterostylodes obscura (Macquart, 1835)
 = *pratensis* auct. p. p.
Heterostylodes pilifera (Zetterstedt, 1845)
 = *pratensis* auct. p. p.
Heterostylodes pratensis (Meigen, 1826)
HYDROPHORIA Robineau-Desvoidy, 1830
Hydrophoria lancifer (Harris, 1780)
 = *conica* Wiedemann, 1817
Hydrophoria linogrisea (Meigen, 1826)
Hydrophoria silvicola (Robineau-Desvoidy, 1830)
 = *annulata* auct. nec Pandellé, 1899
HYLEMYA Robineau-Desvoidy, 1830
Hylemya nigrimana (Meigen, 1826)
Hylemya urbica Wulp, 1896
 = *latifrons* Schnabl in Schnabl & Dziedzicki, 1911
Hylemya vagans (Panzer, 1798)
 = *strenua* Robineau-Desvoidy, 1830
Hylemya variata (Fallén, 1823)
HYLEMYZA Schnabl & Dziedzicki, 1911
 = *Hylemya* auct. p. p.
Hylemyza partita (Meigen, 1826)
LASIOOMMA Stein, 1916
 = *Crinurina* Karl, 1928
 = *Acrostilpina* Ringdahl, 1929
Lasiomma anthomyinum (Rondani, 1866)
Lasiomma atricauda (Zetterstedt, 1845)
Lasiomma collini (Ringdahl, 1929)
Lasiomma craspedodontum (Hsue, 1980)
Lasiomma cuneicorne (Zetterstedt, 1838)
Lasiomma iwasai Suwa, 1978
Lasiomma japonicum Suwa, 1971

- Lasiomma latipenne* (Zetterstedt, 1838)
Lasiomma monticola Suh & Kwon, 1985
Lasiomma morionellum (Zetterstedt, 1838)
Lasiomma picipes (Meigen, 1826)
 = *octoguttata* Zetterstedt, 1845
Lasiomma quinquelineatum (Ringdahl, 1926)
Lasiomma seminitidum (Zetterstedt, 1845)
Lasiomma strigilatum (Zetterstedt, 1838)
 = *nitidicauda* Zetterstedt, 1855
LEUCOPHORA Robineau-Desvoidy, 1830
Leucophora cinerea Robineau-Desvoidy, 1830
Leucophora grisella Hennig, 1967
Leucophora obtusa (Zetterstedt, 1838)
Leucophora sericea Robineau-Desvoidy, 1830
Leucophora tavastica (Tiensuu, 1939)
Leucophora unilineata (Zetterstedt, 1838)
Leucophora unistriata (Zetterstedt, 1838)
MYCOPHAGA Rondani, 1856
Mycophaga testacea (Gimmerthal, 1834)
MYOPINA Robineau-Desvoidy, 1830
Myopina myopina (Fallén, 1824)
 = *reflexa* Robineau-Desvoidy, 1830
Myopina scoparia (Zetterstedt, 1845)
PARADELIA Ringdahl, 1933
 = *Pseudonupedia* Ringdahl, 1959 (*nomen nudum*)
 = *Pseudonupedia* Hockett, 1971
Paradelia brunneonigra (Schnabl in Schnabl & Dziedzicki, 1911)
Paradelia intersecta (Meigen, 1826)
Paradelia lunatifrons (Zetterstedt, 1846)
Paradelia lundbeckii (Ringdahl, 1918)
PAREGLE Schnabl, 1911
 = *Chionomyia* Ringdahl, 1933
Paregle atrisquama (Ringdahl, 1948)
Paregle audacula (Harris, 1780)
 = *radicum* auct. nec Linnaeus, 1758
Paregle vetula (Zetterstedt, 1838)
PEGOMYA Robineau-Desvoidy, 1830
Pegomya atricauda Ringdahl, 1944
Pegomya avida Hennig, 1973
Pegomya betae (Curtis, 1847)
 = *hyoscyami* auct. p. p.
Pegomya bicolor (Wiedemann, 1817)
Pegomya caesia Stein, 1906

- Pegomya calyptrata* (Zetterstedt, 1846)
Pegomya circumpolaris Ackland & Griffiths in Griffiths, 1983
Pegomya conformis (Fallén, 1825)
Pegomya cunicularia (Rondani, 1866)
= *hyoscyami* auct. p. p.
Pegomya curviphallis Michelsen, 2006
Pegomya deprimata (Zetterstedt, 1845)
Pegomya exilis (Meigen, 1826)
= *hyoscyami* auct. p. p.
Pegomya flavifrons (Walker, 1849)
Pegomya flavoscutellata (Zetterstedt, 1838)
Pegomya fulgens (Meigen, 1826)
Pegomya furva Ringdahl, 1938
Pegomya fuscinata Tiensuu, 1939
Pegomya geniculata (Bouché, 1834)
Pegomya grahami Michelsen & Ackland, 2009
Pegomya haemorrhoum (Zetterstedt, 1838)
= *haemorrhoea* (misspelling)
Pegomya holmgreni (Boheman, 1859)
Pegomya holostea (Hering, 1924)
Pegomya hyoscyami (Panzer, 1809)
Pegomya incisiva Stein, 1906
Pegomya interruptella (Zetterstedt, 1855)
Pegomya lurida (Zetterstedt, 1846)
Pegomya maculata Stein, 1906
= *atricauda* auct. p. p.
Pegomya meridiana (Villeneuve, 1923)
Pegomya notabilis (Zetterstedt, 1846)
= *zonata* auct. nec Zetterstedt, 1838
Pegomya pallidoscutellata (Zetterstedt, 1852)
Pegomya pulchripes (Loew, 1857)
= *flavipes* Fallén, 1825
Pegomya rubivora (Coquillett in Slingerland, 1897)
Pegomya ruficeps (Zetterstedt, 1838)
Pegomya rufina (Fallén, 1825)
Pegomya scapularis (Zetterstedt, 1846)
= *pilosa* Stein, 1900
Pegomya seitenstettensis (Strobl, 1880)
Pegomya setaria (Meigen, 1826)
Pegomya solennis (Meigen, 1826)
= *nigritarsis* Zetterstedt, 1838
Pegomya steini Hendel, 1925

- Pegomya tabida* (Meigen, 1826)
Pegomya tenera (Zetterstedt, 1838)
Pegomya testacea (De Geer, 1776)
 = *silacea* Meigen, 1830
Pegomya transgressa (Zetterstedt, 1846)
Pegomya vanduzeei Malloch, 1919
 = *versicolor* auct. nec Meigen, 1826
Pegomya vittigera (Zetterstedt, 1838)
Pegomya winthemi (Meigen, 1826)
Pegomya zonata (Zetterstedt, 1838)
 = *tenera* auct. nec Zetterstedt, 1838
PEGOPLATA Schnabl & Dziedzicki, 1911
 = **Nupedia** Karl, 1930
Pegoplata aestiva (Meigen, 1826)
Pegoplata annulata (Pandellé, 1899)
 = *virginea* auct. nec Meigen, 1826
Pegoplata infirma (Meigen, 1826)
Pegoplata nigroscutellata (Stein, 1920)
Pegoplata palposa (Stein, 1897)
Pegoplata patellans (Pandellé, 1900)
Pegoplata tundrica (Schnabl, 1915)
PHORBIA Robineau-Desvoidy, 1830
Phorbia atrogrisea Tiensuu, 1936
Phorbia curvicauda (Zetterstedt, 1845)
Phorbia fascicularis Tiensuu, 1936
Phorbia fumigata (Meigen, 1826)
 = *securis* Tiensuu, 1936
Phorbia genitalis (Schnabl in Schnabl & Dziedzicki, 1911)
Phorbia longipilis (Pandellé, 1900)
Phorbia melania Ackland & Michelsen, 1987
Phorbia moliniaris (Karl, 1917)
Phorbia penicillaris (Stein, 1916)
Phorbia singularis Tiensuu, 1938
Ringdablia Michelsen, 2014
Ringdablia curtigena (Ringdahl, 1935)
STROBILOMYIA Michelsen, 1988
 = **Lasiomma** auct. p. p.
Strobilomyia anthracina (Czerny, 1906)
Strobilomyia infrequens (Ackland, 1965)
Strobilomyia laricicola (Karl, 1928)
Strobilomyia sibirica Michelsen, 1988
Strobilomyia svenssoni Michelsen, 1988

SUBHYLEMYIA Ringdahl, 1933*Subhylemyia longula* (Fallén, 1824)**ZAPHNE** Robineau-Desvoidy, 1830= **Acroptena** Pokorný, 1893= **Hydrophoria** auct. p. p.*Zaphne ambigua* (Fallén, 1823)*Zaphne barbiventris* (Zetterstedt, 1845)*Zaphne brunneifrons* (Zetterstedt, 1838)*Zaphne caudata* (Zetterstedt, 1855)*Zaphne divisa* (Meigen, 1826)*Zaphne fasciculata* (Schnabl, 1915)*Zaphne frontata* (Zetterstedt, 1838)*Zaphne ignobilis* (Zetterstedt, 1845)*Zaphne inuncta* (Zetterstedt, 1838)= *hyalipennis* Zetterstedt, 1855*Zaphne lineatocollis* (Zetterstedt, 1838)= *laticornis* Ringdahl, 1916*Zaphne nuda* (Schnabl in Schnabl & Dziedzicki, 1911)*Zaphne proxima* (Malloch, 1920)*Zaphne verticina* (Zetterstedt, 1838)*Zaphne wierzejskii* (Mik, 1867)*Zaphne zetterstedtii* (Ringdahl, 1918)**Excluded species**

Botanophila rotundivalva (Ringdahl, 1937). Misidentification of closely related, still undescribed species first recorded from Ks by Frey (1956).

Delia angustiventris (Zetterstedt, 1845). Misidentification of *Delia nudicosta* (Ringdahl) by Tiensuu (1936).

Delia floricola Robineau-Desvoidy, 1830. An erroneous record introduced by Hennig (1974).

Delia penicillosa Hennig, 1974. An erroneous record introduced by Michelsen (2004).

Lasiomma multisetosum (Ringdahl, 1926). According to Tiensuu (1936) seen from "finnischen Lappland" by O. Ringdahl, but no specimens have been found in the Museum of Zoology, Lund University.

Pegomya glabroides Michelsen, 2008. Listed from Finland (Kuusamo: Kuolajärvi) by Michelsen (2008), but Kuolajärvi (now Kuoloyarvi) is presently situated in Russian Murmansk Oblast close to the Finnish border.

Pegomya laticornis (Fallén, 1825) (= *genupuncta* Stein, 1906). Identification inferred by Hendel (1922) from finds of leaf mines on *Arctium* by Linnaniemi (1913). Supposed *Pegomya*-leaf mines on *Arctium* have been reported from Finland several times since then, but no flies have been recovered so far.

- Pegomya nigrisquama* (Stein, 1888). Identification inferred by Hering (1925) from finds of leaf-mines on *Solidago virgaurea* by Linnaniemi (1913).
- Pegomya sociella* Stein, 1906. Only recorded from Le: Kilpisjärvi (Tiensuu 1933). Probably a misidentification.
- Phorbia bartaki* Ackland & Michelsen, 1987. Records by Kahanpää (2013) refer to *P. melania* Ackland & Michelsen.

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Checklist of the superfamilies Oestroidea and Hippoboscoidea of Finland (Insecta, Diptera)

Jaakko Pohjoismäki¹, Jere Kahanpää²

1 University of Eastern Finland, Department of Biology, P.O.Box 111, FI-80101 Joensuu, Finland **2** Finnish Museum of Natural History, Zoology Unit, P.O. Box 17, FI-00014 University of Helsinki, Finland

Corresponding author: Jaakko Pohjoismäki (Jaakko.Pohjoismaki@uef.fi)

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Abstract

An updated checklist of the superfamilies Oestroidea and Hippoboscoidea recorded from Finland is presented. The checklist covers the following families: Calliphoridae, Rhiniidae, Sarcophagidae, Rhinophoridae, Tachinidae, Oestridae and Hippoboscidae.

Keywords

Checklist, Finland, Diptera, Oestroidea, Hippoboscoidea

Introduction

Oestroidea is a large and diverse superfamily of flies with a variety of life history strategies ranging from saprophages to parasitoids or endoparasites, sometimes even within the family. Some groups, such as certain subfamilies of the Calliphoridae, have also significant veterinary, medical and economical impact. Oestroidea are regarded as monophyletic clade, however the same does not apply to the family of Calliphoridae within Oestroidea (Marinho et al. 2012). Besides Calliphoridae, Oestroidea currently includes

Table 1. Number of species by family.

Family	Number of species in			Level of knowledge
	World (Pape et al. 2011)	Europe	Finland	
Oestroidea:				
Calliphoridae	1525	102	45	good
Rhiniidae	376	12	0–1	good
Sarcophagidae	3094	309	64	average
Rhinophoridae	174	45	5	average
Tachinidae	9626	877	319	average
Oestridae	176	22	8	average
Hippoboscoidea:				
Hippoboscidae s. lat.	782	45	12	average

six other monophyletic families: Rhiniidae, Sarcophagidae, Rhinophoridae, Tachinidae, Oestridae and the non-finnish Mystacinobiidae. Additionally, the subfamilies of Oestridae (Oestrinae, Gasterophilinae) are sometimes treated as full families.

Hippoboscoidea contains the louse flies Hippoboscidae as well as the tropical Glossinidae or tsetse flies. Hippoboscidae is divided to the mammal or bird parasitic louse flies (Hippoboscinae) and batflies (Nycterbiinae, Streblinae). Although batflies have been treated as full families, they seem to be subordinate to the other Hippoboscidae (Kutty et al. 2010). The checklist will therefore follow the family division of Pape et al. 2011.

While world catalogues has been published for Sarcophagidae (Pape 1996) and Hippoboscidae (Dick 2006) only regional (Herting and Dely-Draskovits 1993) or genus-level (O’Hara 2012) catalogues exist for the other oestroid and hippoboscooid families. The Finnish species of Oestroidea and Hippoboscoidea were last listed by Hackman (1980). The sarcophagid checklist was updated by Pape (1987a,b) and the calliphorids by Rognes (1991). The updated checklists for Oestridae, Rhinophoridae and Tachinidae follow the taxonomic order of Pape (2001), Herting (1993) and Herting and Dely-Draskovits (1993), respectively.

Checklist part I: Oestroidea

suborder Brachycera Macquart, 1834
 clade Eremoneura Lameere, 1906
 clade Cyclorrhapha Brauer, 1863
 infraorder Schizophora Becher, 1882
 clade Muscaria Enderlein, 1936
 parvorder Calyptratae Robineau-Desvoidy, 1830
 superfamily Oestroidea Leach, 1815

CALLIPHORIDAE Brauer & Bergenstamm, 1889

CALLIPHORINAE Brauer & Bergenstamm, 1889

BELLARDIA Robineau-Desvoidy, 1863

= *Pseudonesia* Villeneuve, 1920

Bellardia bayeri (Jacentkovsky, 1937)

Bellardia pandia (Walker, 1849)

= *biseta* (Kramer, 1917)

Bellardia pubicornis (Zetterstedt, 1838)

= *puberula* (Zetterstedt, 1838)

Bellardia stricta (Villeneuve, 1926)

= *polita* auct. nec (Mik, 1883)

Bellardia viarum (Robineau-Desvoidy, 1830)

= *pusilla* (Meigen, 1826)

Bellardia vulgaris (Robineau-Desvoidy, 1830)

= *agilis* (Meigen, 1826) preocc.

CALLIPHORA Robineau-Desvoidy, 1830

= *Steringomyia* Pokorny, 1889

= *Acrophaga* Brauer & Bergenstamm, 1891

= *Abonesia* Villeneuve, 1927

= *Acronesia* Hall, 1948

Calliphora genarum (Zetterstedt, 1838)

= *alpina* (Zetterstedt, 1845)

Calliphora loewi Enderlein, 1903

Calliphora stelviana (Brauer & Bergenstamm, 1891)

Calliphora subalpina (Ringdahl, 1931)

Calliphora uralensis Villeneuve, 1922

Calliphora vicina Robineau-Desvoidy, 1830

= *erythrocephala* (Meigen, 1826) preocc.

Calliphora vomitoria (Linnaeus, 1758)

CYNOMYA Robineau-Desvoidy, 1830

Cynomya mortuorum (Linnaeus, 1761)

ONESIA Robineau-Desvoidy, 1830

Onesia floralis Robineau-Desvoidy, 1830

CHRYSOMYINAE Shannon, 1923

PROTOCOLLIPHORA Hough, 1899

Protocalliphora azurea (Fallén, 1817)

Protocalliphora nuortevai Grunin, 1972

Protocalliphora peusi Gregor & Povolny, 1959

Protocalliphora proxima Grunin, 1966

Protocalliphora rognesi Thompson & Pont, 1993

= *chrysorrhoea* Meigen, 1826 preocc.

PROTOPHORMIA Townsend, 1908

= *Boreellus* Aldrich & Schannon, 1923

Protophormia atriceps (Zetterstedt, 1845)

Protophormia terraenovae (Robineau-Desvoidy, 1830)

TRYPOCALLIPHORA Peus, 1960

Trypocalliphora braueri (Hendel, 1901)

= *lindneri* Peus, 1960

HELICOBOSCINAE Verves, 1980

EURYCHAETA Brauer & Bergenstamm, 1891

= *Helicobosca* Bezzi, 1906

Eurychaeta palpalis (Robineau-Desvoidy, 1830)

LUCILIINAE Shannon, 1923

LUCILIA Robineau-Desvoidy, 1830

Lucilia ampullacea Villeneuve, 1922

Lucilia bufonivora Moniez, 1876

Lucilia caesar (Linnaeus, 1758)

Lucilia illustris (Meigen, 1826)

Lucilia magnicornis (Siebke, 1863)

= *fuscipalpis* (Zetterstedt, 1845)

Lucilia richardsi Collin, 1926

Lucilia sericata (Meigen, 1826)

Lucilia silvarum (Meigen, 1826)

MELANOMYINAE Townsend, 1919

ANGIONEURA Brauer & Bergenstamm, 1893

Angioneura acerba (Meigen, 1838)

MELANOMYA Rondani, 1856

Melanomya nana (Meigen, 1826)

MELINDA Robineau-Desvoidy, 1830

Melinda gentilis Robineau-Desvoidy, 1830

= *coerulea* (Meigen, 1826) preocc.

= *cognata* (Meigen, 1830)

Melinda viridicyanea (Robineau-Desvoidy, 1830)

POLLENIINAE Brauer & Bergenstamm, 1889

MORINIA Robineau-Desvoidy, 1830

Morinia doronici (Scopoli, 1763)

= *melanoptera* (Fallén, 1817)

= *Angioneura fimbriata* misid.

POLLENIA Robineau-Desvoidy, 1830

Pollenia amentaria (Scopoli, 1763)

= *vespillo* auct. nec (Fabricius, 1794)

Pollenia angustigena Wainwright, 1940

Pollenia griseotomentosa (Jacentkowský, 1944)

Pollenia hungarica Rognes, 1987

Pollenia labialis Robineau-Desvoidy, 1863

= *excarinata* Wainwright, 1940

= *intermedia* misid.

Pollenia pediculata Macquart, 1834

Pollenia rudis (Fabricius, 1794)

= *varia* (Meigen, 1826)

Pollenia vagabunda (Meigen, 1826)

RHINIIDAE Brauer & Bergenstamm, 1889

STOMORHINA Rondani, 1861

Stomorbina lunata (Fabricius, 1805)

SARCOPHAGIDAE Macquart, 1834

MILTOGRAMMINAE Lioy, 1864

AMOBIA Robineau-Desvoidy, 1830

Amobia oculata (Zetterstedt, 1844)

= *signata* misid.

Amobia signata (Meigen, 1824)

HILARELLA Rondani, 1856

Hilarella hilarella (Zetterstedt, 1844)

MACRONYCHIA Rondani, 1859

= *Macronichia* orig. emend.

sg. Macronychia Rondani, 1859

Macronychia striginervis (Zetterstedt, 1838)

sg. Moschusa Robineau-Desvoidy, 1863

Macronychia agrestis (Fallén, 1820)

Macronychia griseola (Fallén, 1820)

Macronychia polyodon (Meigen, 1824)

METOPIA Meigen, 1803

Metopia argentata Macquart 1850

= *roserii* Rondani, 1859

= *stackelbergi* Rohdendorf, 1955

Metopia argyrocephala (Meigen, 1824)

= *leucocephala* (Rossi, 1790) preocc.

Metopia campestris (Fallén, 1810)

Metopia grandii Venturi, 1953

Metopia staegerii Rondani, 1859

= *rondaniana* Venturi, 1953

Metopia tshernovae Rohdendorf, 1955

MILTOGRAMMA Meigen, 1803

Miltogramma germari Meigen, 1824

Miltogramma iberica (Villeneuve, 1912)

Miltogramma oestracea (Fallén, 1820)

Miltogramma punctata Meigen, 1824

Miltogramma villeneuvei Verves, 1982

OEBALIA Robineau-Desvoidy, 1863

- Oebalia cylindrica* (Fallén, 1810)
Oebalia minuta (Fallén, 1810)
PHROSINELLA Robineau-Desvoidy, 1863
Phrosinella sannio (Zetterstedt, 1838)
 = *nasuta* misid.
PTERELLA Robineau-Desvoidy, 1830
Pterella grisea (Meigen, 1824)
SENOTAINIA Macquart, 1846
Senotainia albifrons (Rondani, 1859)
Senotainia conica (Fallén, 1810)
Senotainia puncticornis (Zetterstedt, 1859)
 = *imberbis* (Zetterstedt, 1838) preocc.
 = *crabronum* (Kramer, 1920)
TAXIGRAMMA Perris, 1852
Taxigramma elegantulum (Zetterstedt, 1844)
Taxigramma heteroneurum (Meigen, 1830)
 PARAMACRONYCHIINAE Brauer & Bergenstamm, 1889
AGRIA Robineau-Desvoidy, 1830
Agria affinis (Fallén, 1817)
 = *punctata* Robineau-Desvoidy, 1830
Agria mamillata (Pandellé, 1896)
ANGIOMETOPA Brauer & Bergenstamm, 1889
Angiometopa falleni Pape, 1986
 = *ruralis* (Fallén, 1817) preocc.
BRACHICOMA Rondani, 1856
Brachicoma devia (Fallén, 1820)
Brachicoma borealis Ringdahl, 1932
 SARCOPHAGINAE Macquart, 1834
BLAESOXIPHA Loew, 1861
sg. *Blaesoxipha* Loew, 1861
Blaesoxipha lapidosa Pape, 1994
 = *agrestis* auct. nec (Robineau-Desvoidy, 1863)
 = *campestris* auct. nec (Robineau-Desvoidy, 1863)
Blaesoxipha laticornis (Meigen, 1826)
Blaesoxipha plumicornis (Zetterstedt, 1859)
 = *laticornis* misid.
 = *gladiatrix* (Pandellé, 1896)
sg. *Servaisia* Robineau-Desvoidy, 1863
Blaesoxipha erythrura (Meigen, 1826)
RAVINIA Robineau-Desvoidy, 1830
Ravinia pernix (Harris, 1780)
 = *striata* (Fabricius, 1794) preocc.
SARCOPHAGA Meigen, 1826

- sg. *Bellieriomima*** Rohdendorf, 1937
Sarcophaga subulata Pandellé, 1896
- sg. *Discacheata*** Enderlein, 1928
Sarcophaga pumila Meigen, 1826
- sg. *Helicophagella*** Enderlein, 1928
Sarcophaga crassimargo Pandellé, 1896
Sarcophaga melanura Meigen, 1826
Sarcophaga rosellei Böttcher, 1912
- sg. *Heteronychia*** Brauer & Bergenstamm, 1889
Sarcophaga depressifrons Zetterstedt, 1845
 = *offuscata* auct. nec Meigen, 1826
Sarcophaga haemorrhoea Meigen, 1826
Sarcophaga proxima (Rondani, 1860)
Sarcophaga vagans (Meigen, 1826)
 = *frenata* Pandellé, 1896
Sarcophaga vicina (Macquart, 1835)
- sg. *Liosarcophaga*** Enderlein, 1928
Sarcophaga emdeni (Rohdendorff, 1969)
 = *teretirostris* auct. nec Pandellé, 1896
Sarcophaga portschinskyi Rohdendorf, 1937
 = *tuberosa* misid.
- sg. *Mehria*** Enderlein, 1928
Sarcophaga sexpunctata (Fabricius, 1805)
 = *clathrata* (Meigen, 1826)
Sarcophaga nemoralis Kramer, 1908
- sg. *Myorhina*** Robineau-Desvoidy, 1830
 = *Pierretia* Robineau-Desvoidy, 1863
Sarcophaga socrus Rondani, 1860
 = *rostrata* Pandellé, 1896
Sarcophaga villeneuvei Böttcher, 1912
- sg. *Pandelleisca*** Rohdendorf, 1937
Sarcophaga similis Meade, 1876
- sg. *Parasarcophaga*** Johnston & Tiegs, 1921
Sarcophaga albiceps Meigen, 1826
 = *privigna* Rondani, 1860
- sg. *Robineauella*** Enderlein, 1928
Sarcophaga caeruleascens Zetterstedt, 1838
 = *scoparia* Pandellé, 1896
- sg. *Rosellea*** Rohdendorf, 1937
Sarcophaga aratrix Pandellé, 1896
- sg. *Sarcophaga*** Meigen, 1826
Sarcophaga carnaria (Linnaeus, 1758)
 = *schulzi* Müller, 1922

= *lehmanni* auct. nec Müller, 1922

Sarcophaga lehmanni Müller, 1922

= *lasiostyla* auct. nec Macquart, 1843

= *cognata* Rondani, 1860 preocc.

Sarcophaga subvicina Rohdendorf, 1937

Sarcophaga variegata (Scopoli, 1763)

= *carnaria* auct. nec (Linnaeus, 1758)

sg. *Sarcotachinella* Townsend, 1892

Sarcophaga sinuata Meigen, 1826

sg. *Thyrsocnema* Enderlein, 1928

Sarcophaga incisilobata Pandellé, 1896

Sarcophaga kentejana (Rohdendorf, 1937)

= *lapponica* (Tiensuu, 1939)

RHINOPHORIDAE Robineau-Desvoidy, 1863

MELANOPHORA Meigen, 1803

Melanophora roralis (Linnaeus, 1758)

PAYKULLIA Robineau-Desvoidy, 1830

Paykullia brevicornis (Zetterstedt, 1844)

Paykullia maculata (Fallén, 1815)

STEVENIA Robineau-Desvoidy, 1830

Stevenia atramentaria (Meigen, 1824)

TRICOGENA Rondani, 1856

= *Frauenfeldia* Egger, 1865

Tricogena rubricosa (Meigen, 1824)

TACHINIDAE Robineau-Desvoidy, 1830

EXORISTINAE Robineau-Desvoidy, 1863

tribe Exoristini Robineau-Desvoidy, 1863

EXORISTA Meigen, 1803

sg. *Adenia* Robineau-Desvoidy, 1863

Exorista mimula (Meigen, 1824)

Exorista rustica (Fallén, 1810)

Exorista sp. A

sg. *Exorista* Meigen, 1803

Exorista fasciata (Fallén, 1820)

Exorista larvarum (Linnaeus, 1758)

sg. *Podotachina* Brauer & Bergenstamm, 1891

Exorista grandis (Zetterstedt, 1844)

= *sorbillans* auct. nec Wiedemann, 1830

sg. *Ptilotachina* Brauer & Bergenstamm 1891

Exorista deligata Pandellé, 1896

CHETOGENA Rondani, 1856

- Chetogena tschorsnigi* Ziegler, 1999
DIPLOSTICHUS Brauer & Bergenstamm, 1889
Diplostichus janitrix (Hartig, 1838)
PHOROCERA Brauer & Bergenstamm, 1889
Phorocera assimilis (Fallén, 1810)
Phorocera obscura (Fallén, 1810)
PHORINIA Robineau-Desvoidy, 1830
Phorinia aurifrons Robineau-Desvoidy, 1830
BESSA Robineau-Desvoidy, 1830
Bessa selecta (Meigen, 1824)
tribe Blondeliini Robineau-Desvoidy, 1863
BELIDA Robineau-Desvoidy, 1863
= **Aporotachina** Meade, 1894
Belida angelicae (Meigen, 1824)
MEIGENIA Robineau-Desvoidy, 1830
Meigenia dorsalis (Meigen, 1824)
Meigenia mutabilis (Fallén, 1810)
= *bisignata* (Meigen, 1824)
ZAIRA Robineau-Desvoidy, 1830
= **Viviania** Rondani, 1861
Zaira cinerea (Fallén, 1810)
MEDINA Robineau-Desvoidy, 1830
Medina collaris (Fallén, 1820)
Medina luctuosa (Meigen, 1824)
Medina separata (Meigen, 1824)
POLICHETA Rondani, 1856
= **Perichaeta** preocc.
Policheta unicolor (Fallén, 1820)
ISTOCHETA Rondani, 1859
= **Hyperecteina** Schiner, 1862
Istocheta longicornis (Fallén, 1810)
STAUROCHAETA Brauer & Bergenstamm, 1889
Staurochaeta albocingulata (Fallén, 1820)
ADMONTIA Brauer & Bergenstamm, 1889
= **Trichopareia** Brauer & Bergenstamm, 1889
Admontia blanda (Fallén, 1820)
Admontia grandicornis (Zetterstedt, 1849)
Admontia seria (Meigen, 1824)
OSWALDIA Robineau-Desvoidy, 1863
Oswaldia muscaria (Fallén, 1810)
Oswaldia eggeri (Brauer & Bergenstamm, 1889)
Oswaldia reducta (Villeneuve, 1930)
Oswaldia spectabilis (Meigen, 1824)

= *albisquama* (Zetterstedt, 1844)

PARACRASPEDOTHRIX Villeneuve, 1919

Paracraspedothrix montivaga Villeneuve, 1919

LIGERIA Robineau-Desvoidy, 1863

Ligeria angusticornis (Loew, 1847)

= *zetterstedti* (Ringdahl, 1945)

LIGERIELLA Mesnil, 1961

Ligeriella aristata (Villeneuve, 1911)

BLONDELIA Robineau-Desvoidy, 1830

Blondelia nigripes (Fallén, 1810)

tribe Acemyini Brauer & Bergenstamm, 1889

ACEMYA Robineau-Desvoidy, 1830

Acemya acuticornis (Meigen, 1824)

Acemya rufitibia (von Roser, 1840)

tribe Ethillini Mesnil, 1944

PARATRYPHERA Brauer & Bergenstamm, 1891

Paratryphera barbatula (Rondani, 1859)

Paratryphera bisetosa (Brauer & Bergenstamm, 1891)

tribe Winthemiini Townsend, 1913

RHAPHIOCHAETA Brauer & Bergenstamm, 1889

Rhaphiochaeta breviseta (Zetterstedt, 1838)

SMIDTIA Robineau-Desvoidy, 1830

= *Timavia* Robineau-Desvoidy, 1863

Smidtia amoena (Meigen, 1824)

Smidtia conspersa (Meigen, 1824)

WINTHEMIA Robineau-Desvoidy, 1830

Winthemia cruentata (Rondani, 1859)

Winthemia erythrura (Meigen, 1838)

Winthemia quadripustulata (Fabricius, 1794)

Winthemia venusta (Meigne, 1824)

NEMORILLA Rondani, 1856

Nemorilla floralis (Fallén, 1810)

Nemorilla maculosa (Meigen, 1824)

= *floralis* misid.

tribe Eryciini Robineau-Desvoidy, 1830

APLOMYA Robineau-Desvoidy, 1830

Aplomya confinis (Fallén, 1820)

PHEBELLIA Robineau-Desvoidy, 1846

Phebellia clavellariae (Brauer & Bergenstamm, 1891)

Phebellia glauca (Meigen, 1824)

Phebellia glaucoides Herting, 1961

Phebellia glirina (Rondani, 1859)

Phebellia margaretae Bergström, 2005

- Phebellia nigripalpis* (Robineau-Desvoidy, 1847)
= *fuscipennis* (Robineau-Desvoidy, 1830)
Phebellia pauciseta (Villeneuve, 1908)
Phebellia strigifrons (Zetterstedt, 1838)
Phebellia stulta (Zetterstedt, 1844)
Phebellia triseta (Pandellé, 1896)
Phebellia vicina Wainwright, 1940
Phebellia villica (Zetterstedt, 1838)
Phebellia sp. A
NILEA Robineau-Desvoidy, 1863
Nilea hortulana (Meigen, 1824)
Nilea innoxia Robineau-Desvoidy, 1863
Nilea rufiscutellaris (Zetterstedt, 1859)
TLEPHUSA Robineau-Desvoidy, 1863
Tlephusa cincinna (Meigen, 1859)
= *diligens* auct. nec (Zetterstedt, 1844)
EPICAMPOCERA Macquart, 1849
Epicampocera succincta (Meigen, 1824)
PHRYXE Robineau-Desvoidy, 1830
Phryxe erythrostroma (Hartig, 1838)
Phryxe magnicornis (Zetterstedt, 1838)
Phryxe nemea (Meigen, 1824)
Phryxe vulgaris (Fallén, 1810)
PERIARCHICLOPS Villeneuve, 1924
Periarchiclops scutellaris (Fallén, 1820)
BACTROMYIA Brauer & Bergenstamm, 1891
Bactromyia aurulenta (Meigen, 1824)
= *Thecocarcelia acutangula* misid.
PSEUDOPERICHAETA Brauer & Bergenstamm, 1899
Pseudoperichaeta nigrolineata (Stephens, 1853)
LYDELLA Robineau-Desvoidy, 1830
Lydella ripae (Brischke, 1885)
= *grisescens* misid.
= *lepida* misid.
Lydella stabulans (Meigen, 1824)
CADURCIELLA Villeneuve, 1927
Cadurciella tritaeniata (Rondani, 1859)
DRINO Robineau-Desvoidy, 1863
Drino bohémica Mesnil, 1949
Drino galii (Brauer & Bergenstamm, 1891)
Drino gilva (Hartig, 1838)
Drino inconspicua (Meigen, 1830)
Drino lota (Meigen, 1824)

Drino vicina (Zetterstedt, 1849)

HUBNERIA Robineau-Desvoidy, 1848

= *Huebneria* orig. emend.

Hubneria affinis (Fallén, 1810)

CARCELIA Robineau-Desvoidy, 1830

sg. Carcelia Robineau-Desvoidy, 1830

Carcelia atricosta Herting, 1961

= *bombylans* misid.

Carcelia bombylans Robineau-Desvoidy, 1830

Carcelia gnava (Meigen, 1824)

= *excavata* (Zetterstedt, 1844)

Carcelia laxifrons Villeneuve, 1912

Carcelia lucorum (Meigen, 1824)

Carcelia rasa (Macquart, 1849)

= *amphion* Robineau-Desvoidy, 1863

Carcelia tibialis (Robineau-Desvoidy, 1863)

SENOMETOPIA Macquart, 1834

Senometopia excisa (Fallén, 1820)

Senometopia intermedia (Herting, 1960)

Senometopia pollinosa Mesnil, 1941

= *rutilla* auct. nec (Villeneuve, 1912)

= *obesa* auct. nec (Zetterstedt, 1859)

Senometopia separata (Rondani, 1859)

= *bombycivora* auct. nec (Robineau-Desvoidy, 1830)

ERYCIA Robineau-Desvoidy, 1830

Erycia fatua (Meigen, 1824)

= *festinans* misid.

Erycia furibunda (Zetterstedt, 1844)

XYLOTACHINA Brauer & Bergenstamm, 1891

Xylotachina diluta (Meigen, 1824)

tribe Goniini Liroy, 1864

PLATYMYA Robineau-Desvoidy, 1830

Platymya fimbriata (Meigen, 1824)

EUMEA Robineau-Desvoidy, 1863

= *Platymya* Robineau-Desvoidy, 1830 in part

Eumea linearicornis (Zetterstedt, 1844)

= *westermanni* (Zetterstedt, 1844)

Eumea mitis (Meigen, 1824)

MYXEXORISTOPS Townsend, 1911

Myxexoristops abietis Herting, 1964

Myxexoristops arctica (Zetterstedt, 1838)

Myxexoristops bonsdorffi (Zetterstedt, 1859)

Myxexoristops stolidi (Stein, 1924)

= *blondeli* misid.

ZENILLIA Robineau-Desvoidy, 1830

Zenillia fulva (Fallén, 1820)

= *libatrix* (Panzer, 1798) preocc.

CLEMELIS Robineau-Desvoidy, 1863

Clemelis pullata (Meigen, 1824)

PALES Robineau-Desvoidy, 1830

Pales pavidata (Meigen, 1824)

CYZENIS Robineau-Desvoidy, 1863

Cyzenis albicans (Fallén, 1810)

Cyzenis jucunda (Meigen, 1838)

BOTRIA Rondani, 1856

= *Bothria* orig. emend.

Botria frontosa (Meigen, 1824)

Botria subalpina Villeneuve, 1910

CEROMASIA Rondani, 1856

Ceromasia rubrifrons (Macquart, 1834)

ALLOPHOROCERA Hendel, 1901

= *Erycilla* Mesnil, 1957

Allophorocera ferruginea (Meigen, 1824)

Allophorocera lapponica Wood, 1974

OCYTATA Gistel, 1848

Ocytata pallipes (Fallén, 1820)

ERYNNIA Robineau-Desvoidy, 1830

Erynnia ocypterata (Fallén, 1810)

= *nitida* (Robineau-Desvoidy, 1830)

ELODIA Robineau-Desvoidy, 1863

Elodia ambulatoria (Meigen, 1824)

= *convexifrons* (Zetterstedt, 1844)

STURMIA Robineau-Desvoidy, 1830

Sturmia bella (Meigen, 1824)

BLEPHARIPA Rondani, 1856

Blepharipa pratensis (Meigen, 1824)

PROSOPEA Rondani, 1861

Prosopea nigricans (Egger, 1861)

HEBIA Robineau-Desvoidy, 1830

Hebia flavipes Robineau-Desvoidy, 1830

FRONTINA Meigen, 1838

Frontina laeta (Meigen, 1824)

BRACHICHETA Rondani, 1861

Brachicheta strigata (Meigen, 1824)

GONIA Meigen, 1803

Gonia capitata (De Geer, 1776)

- Gonia divisa* Meigen, 1826
Gonia ornata Meigen, 1826
Gonia picea (Robineau-Desvoidy, 1830)
 = *sicula* auct. nec (Robineau-Desvoidy, 1830)
ONYCHOGONIA Brauer & Bergenstamm, 1889
Onychogonia cervini (Bigot, 1881)
Onychogonia flaviceps (Zetterstedt, 1838)
 = *interrupta* (Rondani, 1859)
SPALLANZANIA Robineau-Desvoidy, 1830
Spallanzania hebes (Fallén, 1820)
 TACHININAE Robineau-Desvoidy, 1830
 tribe Polideini Brauer & Bergenstamm, 1889
LYDINA Robineau-Desvoidy, 1830
Lydina aenea (Meigen, 1824)
LYPHA Robineau-Desvoidy, 1830
Lypha dubia (Fallén, 1810)
Lypha ruficauda (Zetterstedt, 1838)
 tribe Tachinini Robineau-Desvoidy, 1830
TACHINA Meigen, 1803
 = *Larvaevora* Meigen, 1800 *suppr.*
sg. Eudoromyia Bezzi, 1906
Tachina fera (Linnaeus, 1761)
Tachina sp. aff. *magnicornis*
Tachina magnicornis (Zetterstedt, 1844)
sg. Servillia Robineau-Desvoidy, 1830
Tachina ursina (Meigen, 1824)
sg. Tachina Meigen, 1803
Tachina grossa (Linnaeus, 1758)
NOWICKIA Wachtl, 1894
Nowickia alpina (Zetterstedt, 1844)
Nowickia ferox (Panzer, 1809)
Nowickia marklini (Zetterstedt, 1838)
PELETERIA Robineau-Desvoidy, 1830
 = *Cuphocera* Macquart, 1845
Peleteria ferina (Zetterstedt, 1844)
Peleteria rubescens Robineau-Desvoidy, 1830
 = *nigricornis* (Meigen, 1838)
Peleteria ruficornis (Macquart, 1835)
GERMARIA Robineau-Desvoidy, 1830
 = *Atractochaeta* Brauer & Bergenstamm, 1889
Germaria angustata (Zetterstedt, 1844)
Germaria ruficeps (Fallén, 1820)
 tribe Linnaemyini Townsend, 1919

- LINNAEMYA** Robineau-Desvoidy, 1830
Linnaemya haemorrhoidalis (Fallén, 1810)
Linnaemya olsuffevi Zimin, 1954
= *haemorrhoidalis* misid.
Linnaemya rossica Zimin, 1954
= *haemorrhoidalis* misid.
Linnaemya vulpina (Fallén, 1810)
Linnaemya sp. A
CHRYSOSOMOPSIS Townsend, 1916
Chrysosomopsis aurata (Fallén, 1820)
PANZERIA Robineau-Desvoidy, 1830
= **Ernestia** Robineau-Desvoidy, 1830
Panzeria puparum (Fabricius, 1794)
Panzeria rudis (Fallén, 1810)
Panzeria vagans (Meigen, 1824)
APPENDICIA Stein, 1924
Appendicia truncata (Zetterstedt, 1838)
EURITHIA Robineau-Desvoidy, 1844
Eurithia anthophila (Robineau-Desvoidy, 1830)
= *radicum* auct. nec Linnaeus, 1758
Eurithia caesia (Fallén, 1810)
Eurithia connivens (Zetterstedt, 1844)
Eurithia consobrina (Meigen, 1824)
Eurithia intermedia (Zetterstedt, 1844)
= *conjugata* (Zetterstedt, 1855)
Eurithia vivida (Zetterstedt, 1838)
HYALURGUS Brauer & Bergenstamm, 1893
Hyalurgus crucigerus (Zetterstedt, 1838)
Hyalurgus lucidus (Meigen, 1824)
NEMORAEA Robineau-Desvoidy, 1830
Nemoraea pellucida (Meigen, 1824)
GYMNOCHETA Robineau-Desvoidy, 1830
Gymnocheta magna (Fallén, 1810)
Gymnocheta viridis (Fallén, 1810)
ZOPHOMYIA Macquart, 1835
Zophomyia temula (Scopoli, 1763)
CLEONICE Robineau-Desvoidy, 1863
= **Steiniella** Berg, 1898 preocc.
Cleonice callida (Meigen, 1824)
Cleonice keteli Ziegler, 2000
Cleonice nitidiuscula (Zetterstedt, 1859)
LOEWIA Egger, 1856
= **Fortisia** Rondani, 1861

Loewia erecta Bergström, 2007

= *phaeoptera* misid.

Loewia foeda (Meigen, 1824)

ELOCERIA Robineau-Desvoidy, 1863

Eloceria delecta (Meigen, 1824)

tribe Brachymerini Mesnil, 1939

PSEUDOPACHYSTYLUM Mik, 1891

Pseudopachystylum gonioides (Zetterstedt, 1838)

tribe Pelatachinini Mesnil, 1966

PELATACHINA Meade, 1894

Pelatachina tibialis (Fallén, 1810)

tribe Macquartiini Robineau-Desvoidy, 1830

MACQUARTIA Robineau-Desvoidy, 1830

Macquartia dispar (Fallén, 1820)

Macquartia nudigena Mesnil, 1972

= *buccalis* auct. nec Robineau-Desvoidy, 1830

Macquartia tenebricosa (Meigen, 1824)

Macquartia viridana Robineau-Desvoidy, 1863

ANTHOMYIOPSIS Townsend, 1916

= *Ptilopsina* Villeneuve, 1920

Anthomyiopsis nigrisquamata (Zetterstedt, 1838)

tribe Triarthriini Belshaw, 1993

TRIARTHRIA Stephens, 1829

Triarthria setipennis (Fallén, 1810)

tribe Neaerini Mesnil, 1966

PHYTOMYPTERA Rondani, 1845

= *Elfia* Robineau-Desvoidy, 1850

Phytomyptera bohémica Kramer, 1907

Phytomyptera cingulata (Robineau-Desvoidy, 1830)

Phytomyptera nigrina (Meigen, 1824)

Phytomyptera minutissima (Zetterstedt, 1844)

Phytomyptera riedeli (Villeneuve, 1930)

Phytomyptera zonella (Zetterstedt, 1844)

GRAPHOGASTER Rondani, 1868

= *Anurogyna* Brauer & Bergenstamm, 1889

Graphogaster brunnescens Villeneuve, 1907

Graphogaster buccata Herting, 1971

Graphogaster dispar (Brauer & Bergenstamm, 1889)

= *punctiventris* (Ringdahl, 1942)

Graphogaster nigrescens Herting, 1971

tribe Siphonini Rondani, 1844

ENTOMOPHAGA Liroy, 1864

Entomophaga nigrohalterata (Villeneuve, 1921)

Entomophaga sufferta (Villeneuve, 1942)

CEROMYA Robineau-Desvoidy, 1830

Ceromya bicolor (Meigen, 1824)

Ceromya dorsigera Herting, 1967

Ceromya flaviceps Ratzeburg, 1844

Ceromya silacea (Meigen, 1824)

ACTIA Robineau-Desvoidy, 1830

Actia crassicornis (Meigen, 1824)

Actia infantula (Zetterstedt, 1844)

Actia lamia (Meigen, 1838)

Actia maksymovi Mesnil, 1952

Actia nigroscutellata Lundbeck, 1927

Actia pilipennis (Fallén, 1810)

Actia resinellae (Schrank, 1781)

= *nudibasis* Stein, 1924

PERIBAEA Robineau-Desvoidy, 1863

Peribaea hertingi Andersen, 1996

= *fissicornis* misid.

Peribaea longirostris Andersen, 1996

CERANTHIA Robineau-Desvoidy, 1830

Ceranthia abdominalis Robineau-Desvoidy, 1830

Ceranthia lichtwardtiana (Villeneuve, 1931)

Ceranthia pallida Herting, 1959

Ceranthia tenuipalpis (Villeneuve, 1921)

Ceranthia tristella Herting, 1966

Ceranthia vernerii Andersen, 1996

APHANTORHAPHOPSIS Townsend, 1926

Aphantorhaphopsis samarensis (Villeneuve, 1921)

Aphantorhaphopsis siphonoides (Strobl, 1898)

Aphantorhaphopsis verralli (Wainwright, 1928)

SIPHONA Meigen, 1803

Siphona boreata Mesnil, 1960

Siphona collini Mesnil, 1960

Siphona confusa Mesnil, 1961

= *mesnili* Andersen, 1982

Siphona cristata (Fabricius, 1805)

= *geniculata* auct. nec (De Geer, 1776)

Siphona flavifrons (Staeger, 1849)

Siphona geniculata (De Geer, 1776)

= *urbana* (Harris, 1776)

Siphona grandistyla Pandellé, 1894

Siphona immaculata Andersen, 1996

Siphona ingerae Andersen, 1982

- Siphona hokkaidensis* Mesnil, 1957
 = *silvarum* Herting, 1967
 = *martini* Andersen, 1982
- Siphona maculata* (Staeger, 1849)
Siphona nigricans (Villeneuve, 1930)
Siphona paludosa Mesnil, 1960
Siphona pauciseta Rondani, 1865
Siphona rossica Mesnil, 1961
Siphona setosa Mesnil, 1960
Siphona subarctica Andersen, 1996
Siphona variata Andersen, 1982
 tribe Leskiini Townsend, 1919
- APHRIA** Robineau-Desvoidy, 1830
Aphria longilingua Rondani, 1861
Aphria longirostris (Meigen, 1824)
- DEMOTICUS** Macquart, 1854
Demoticus plebejus (Fallén, 1810)
- LESKIA** Robineau-Desvoidy, 1830
Leskia aurea (Fallén, 1820)
- SOLIERIA** Robineau-Desvoidy, 1848
Solieria inanis (Fallén, 1810)
Solieria pacifica (Meigen, 1824)
 = *tibialis* (von Roser, 1840)
 tribe Minthonini Brauer & Bergenstamm, 1889
- MINTHO** Robineau-Desvoidy, 1830
Mintho rufiventris (Fallén, 1816)
- MINTHODES** Brauer & Bergenstamm, 1899
Minthodes picta (Zetterstedt, 1844)
 tribe Microphthalmini Crosskey, 1976
- DEXIOSOMA** Rondani, 1856
Dexiosoma caninum (Fabricius, 1794)
- DEXIINAE Macquart, 1834
 tribe Dexiini Macquart, 1834
- TRIXA** Meigen, 1824
 = **Murana** Meigen, 1824
Trixa caerulescens Meigen, 1824
 = *alpina* Meigen, 1824
Trixa conspersa (Harris, 1776)
 = *variegata* Meigen, 1824
 = *oestroidea* (Robineau-Desvoidy, 1830)
- BILLAEA** Robineau-Desvoidy, 1830
Billaea irrorata (Meigen, 1826)
Billaea kolomyetzi Mesnil, 1970

- Billaea triangulifera* (Zetterstedt, 1844)
DINERA Robineau-Desvoidy, 1830
Dinera ferina (Fallén, 1816)
Dinera grisescens (Fallén, 1816)
Dinera carinifrons (Fallén, 1817)
ESTHERIA Robineau-Desvoidy, 1830
Estheria petiolata (Bonsdorff, 1866)
DEXIA Meigen, 1826
Dexia vacua (Fallén, 1816)
PROSENA Le Peletier & Serville, 1828
Prosenia siberita (Fabricius, 1775)
tribe Voriini Townsend, 1912
ERIOTHRIX Meigen, 1803
Eriothrix argyreatus (Meigen, 1824)
= *apenninus* misid.
Eriothrix prolixa (Meigen, 1824)
Eriothrix rufomaculata (De Geer, 1776)
= *monochaeta* (Wainwright, 1928)
TRAFIOIA Brauer & Bergenstamm, 1893
Trafoia monticola Brauer & Bergenstamm, 1893
CAMPYLOCHETA Rondani, 1859
= **Elpe** Robineau-Desvoidy, 1863
Campylocheta fuscinervis (Stein, 1924)
Campylocheta inepta (Meigen, 1824)
Campylocheta praecox (Meigen, 1824)
BLEPHAROMYIA Brauer & Bergenstamm, 1889
Blepharomyia angustifrons Herting, 1971
Blepharomyia pagana (Meigen, 1824)
= *amplicornis* (Zetterstedt, 1844)
Blepharomyia piliceps (Zetterstedt, 1859)
PETEINA Meigen, 1838
Peteina erinaceus (Fabricius, 1794)
RAMONDA Robineau-Desvoidy, 1863
Ramonda prunaria (Rondani, 1861)
= *carbonaria* misid.
Ramonda ringdahli (Villeneuve, 1922)
Ramonda spathulata (Fallén, 1820)
WAGNERIA Robineau-Desvoidy, 1830
Wagneria alpina (Villeneuve, 1910)
Wagneria costata (Fallén, 1820)
ATHRYCIA Robineau-Desvoidy, 1830
= **Blepharigena** Rondani, 1856
Athrycia curvinervis (Zetterstedt, 1844)

Athrycia impressa (van der Wulp, 1869)

Athrycia trepida (Meigen, 1824)

Athrycia sp. A

VORIA Robineau-Desvoidy, 1830

= **Plagia** Meigen, 1838

Voria ruralis (Fallén, 1810)

CYRTOPHLEBA Rondani, 1856

Cyrtophleba ruricola (Meigen, 1824)

Cyrtophleba vernalis (Kramer, 1917)

KLUGIA Robineau-Desvoidy, 1863

Klugia marginata (Meigen, 1824)

CHAETOVORIA Villeneuve, 1920

Chaetovoria antennata Villeneuve, 1920

PHYLLOMYA Robineau-Desvoidy, 1830

Phyllomya volvulus (Fabricius, 1794)

THELAIRA Robineau-Desvoidy, 1830

Thelaira nigrina (Fallén, 1817)

= *nigripes* (Fabricius, 1794) preocc.

HALIDAYA Egger, 1856

Halidaya aurea Egger, 1856

STOMINA Robineau-Desvoidy, 1830

Stomina tachinoides (Fallén, 1816)

tribe Dufouriini Robineau-Desvoidy, 1830

DUFOURIA Robineau-Desvoidy, 1830

Dufouria chalybeata (Meigen, 1824)

Dufouria nigrata (Fallén, 1810)

RONDANIA Robineau-Desvoidy, 1850

Rondania dimidiata (Meigen, 1824)

Rondania dispar (Dufour, 1851)

Rondania fasciata (Macquart, 1834)

MICROSOMA Macquart, 1855

= **Campogaster** Rondani, 1856

Microsoma exiguum (Meigen, 1824)

FRERAEA Robineau-Desvoidy, 1830

Freraea gagatea Robineau-Desvoidy, 1830

= *albipennis* (Zetterstedt, 1838)

PHASIINAE Robineau-Desvoidy, 1830

tribe Phasiini Robineau-Desvoidy, 1830

CLYTIOMYA Rondani, 1861

Clytiomya continua (Panzer, 1798)

ELIOZETA Rondani, 1856

Eliozeta pellucens (Fallén, 1820)

SUBCLYTIA Pandellé, 1894

Subclytia rotundiventris (Fallén, 1820)

GYMNOSOMA Meigen, 1803

Gymnosoma clavatum (Rohdendorf, 1947)

Gymnosoma dolycoridis Dupuis, 1961

Gymnosoma nudifrons Herting, 1966

CISTOGASTER Latreille, 1804

= **Pallasia** Robinaeu-Desvoidy, 1830

Cistogaster globosa (Fabricius, 1775)

PHASIA Latreille, 1804

= **Alophora** Robineau-Desvoidy, 1830

sg. Hyalomya Robineau-Desvoidy, 1830

Phasia pusilla (Meigen, 1824)

sg. Phasia Latreille, 1804

Phasia aurulans (Meigen, 1824)

Phasia barbifrons (Girschner, 1887)

Phasia hemiptera (Fabricius, 1794)

Phasia obesa (Fabricius, 1798)

Phasia subcoleoprata (Linnaeus, 1767)

tribe Catharosiini Townsend, 1936

CATHAROSIA Rondani, 1868

Catharosia pygmaea (Fallén, 1815)

tribe Strongygastrini Townsend, 1936

STRONGYGASTER Macquart, 1834

= **Tamiclea** Macquart, 1836

Strongygaster celer (Meigen, 1838)

tribe Leucostomatini Townsend, 1908

LEUCOSTOMA Meigen, 1803

Leucostoma simplex (Fallén, 1815)

BRULLAEA Robineau-Desvoidy, 1863

Brullaea ocypteroidea Robineau-Desvoidy, 1863

CINOCHIRA Zetterstedt, 1845

Cinochira atra Zetterstedt, 1945

tribe Cylindromyiini Townsend, 1912

LOPHOSIA Meigen, 1824

sg. Lophosia Meigen, 1824

Lophosia fasciata Meigen, 1824

CYLINDROMYIA Meigen, 1803

sg. Cylindromyia Meigen, 1803

Cylindromyia brassicaria (Fabricius, 1775)

sg. Neocyptera Townsend, 1916

Cylindromyia interrupta (Meigen, 1824)

sg. Ocypterula Rondani, 1856

Cylindromyia pusilla (Meigen, 1824)

HEMYDA Robineau-Desvoidy, 1830

Hemyda obscuripennis (Meigen, 1824)

Hemyda vittata (Meigen, 1824)

BESSERIA Robineau-Desvoidy, 1830

Besseria anthophila (Loew, 1871)

Besseria melanura (Meigen, 1824)

PHANIA Meigen, 1824

Phania curvicauda (Fallén, 1820)

Phania funesta (Meigen, 1824)

= *pseudofunesta* (Villeneuve, 1931)

Phania thoracica Meigen, 1824

OESTRIDAE Leach, 1815

HYPODERMATINAE Rondani, 1856

HYPODERMA Latreille, 1818

Hypoderma bovis (Linnaeus, 1758)

Hypoderma lineatum (De Villers, 1789)

Hypoderma tarandi (Linnaeus, 1758)

CEPHENEMYIINAE Patton, 1921

tribe Cephenemyiini Patton, 1921

CEPHENEMYIA Latreille, 1818

Cephenemyia trompe (Modeer, 1786)

Cephenemyia ulrichii Brauer, 1862

GASTEROPHILINAE Girschner, 1896

GASTEROPHILUS Leach, 1817

Gasterophilus haemorrhoidalis (Linnaeus, 1758)

Gasterophilus intestinalis (De Geer, 1776)

Gasterophilus nasalis (Linnaeus, 1758)

Checklist part 2: Hippoboscoidea

suborder Brachycera Macquart, 1834

clade Eremoneura Lameere, 1906

clade Cyclorrhapha Brauer, 1863

infraorder Schizophora Becher, 1882

clade Muscaria Enderlein, 1936

parvorder Calyptratae Robineau-Desvoidy, 1830

superfamily Hippoboscoidea Samouelle, 1819

HIPPOBOSCIDAE Samouelle, 1819

HIPPOBOSCINAE Samouelle, 1819

tribe Ornithomyini Costa, 1846

CRATAERINA von Olfers, 1816

= **Stenopteryx** Leach, 1817

Crataerina hirundinis (Linnaeus, 1758)

Crataerina pallida (Olivier, 1812)

tribe Olfersiini Maa, 1969

OLFERSIA Wiedemann, 1830

= **Feronia** Leach, 1817 preocc.

Olfersia fumipennis (Sahlberg, 1886)

ORNITHOMYA Latreille, 1802

Ornithomya avicularia (Linnaeus, 1758)

Ornithomya chloropus Bergroth, 1901

Ornithomya fringillina Curtis, 1836

ORNITHOPHILA Rondani, 1879

Ornithophila metallica (Schiner, 1864)

tribe Hippoboscini Samouelle, 1819

HIPPOBOSCA Linnaeus, 1758

Hippobosca equina Linnaeus, 1758

tribe Lipoptenini Speiser, 1908

LIPOPTENA Nitzsch, 1818

Lipoptena cervi (Linnaeus, 1758)

MELOPHAGUS Latreille, 1802

Melophagus ovinus (Linnaeus, 1758)

NYCTERIBIINAE Samouelle, 1819

tribe Nycteribiini Samouelle, 1819

NYCTERIBIA Latreille, 1796

sg. Nycteribia Latreille, 1796

Nycteribia kolenatii Theodor & Moscona, 1954

= *pedicularia* auct. nec Latreille, 1805

= *latreillei* misid.

= *blasii* (Kolenati, 1863) preocc.

PENICILLIDIA Kolenati, 1863

Penicillidia monoceros Speiser, 1900

Excluded species

Aphantorhaphopsis (*Ceranthia*) *selecta* (Pandellé, 1894) misidentified

Baumhaueria goniaeformis (Meigen, 1824) misidentified

Bithia geniculata (Zetterstedt, 1844) see Notes

Blepharipoda scutellata (Robineau-Desvoidy, 1830) misidentified

Blondelia piniariae (Hartig, 1838). Specimens reared from the correct host are mentioned in the notes of Lauri Tiensuu. See Bergström and Bystrowski (2011) for a recent revalidation of this species.

Billaea fortis (Rondani, 1862) a likely misidentification, the specimen cannot be located
Dexia rustica (Fallén, 1816) misidentified
Drino atropivora Robineau-Desvoidy, 1830 not found within present borders
Entomophaga exoleta (Meigen, 1824) misidentified
Graphogaster vestita Rondani, 1868 misidentified
Gymnosoma rotundatum (Linnaeus, 1758) misidentified
Istocheta subcinerea (Borisova-Zinoveva, 1966) misidentified
Leiophora innoxia (Meigen, 1824) specimen lost, but likely a misidentification due to the host record (*Diprion* sp. Symphyta: Diprionidae)
Linnaemya comta (Fallén, 1810) misidentified
Lydella grisescens Robineau-Desvoidy, 1830 misidentified
Macronychia alpestris Rondani, 1865 labeling mistake
Macronychia conica Robineau-Desvoidy, 1830 labeling mistake
Macroprosopa atrata (Fallén, 1810) misidentified
Masicera silvatica (Fallén, 1810) misidentified
Oestrus ovis Linnaeus, 1758 extinct?
Opesia cana (Meigen, 1824) not found within present borders
Pseudogonia rufifrons (Wiedemann, 1830) imported
Pseudoperichaeta palesoidea (Robineau-Desvoidy, 1830) misidentified
Sarcophaga agnata Rondani, 1860 misidentified
Sarcophaga dissimilis Meigen, 1826 misidentified
Sarcophaga granulata Kramer, 1908
Sarcophila latifrons (Fallén, 1817) not found within present borders
Senometopia confundens Rondani, 1859 misidentified
Thelymorpha marmorata (Fabricius, 1805), record cannot be confirmed – specimen lost?

Notes

***Athrycia* sp. A.** Probably an undescribed species (J. Flinck leg., T. Zeegers priv. comm.)

***Bithia geniculata* (Zetterstedt, 1844).** Erroneously included in the previous checklist (Hackman 1980, 1981) on the basis of misinterpreted records of *Siphona geniculata* (De Geer, 1776).

***Dexia vacua* (Fallén, 1816) and *Dinera carinifrons* (Fallén, 1817).** Conspicuous large species with many historical records, however they have not been seen for decades in Finland (last record for *D. carinifrons* from 1945). While the species have certainly become rarer, their complete extinction cannot be confirmed due to the regional paucity of recording. For example, *Linnaemya rossica* Zimin, 1954 was similarly missing for 50 years until rediscovered in 2013 from Lieksa, eastern Finland.

***Exorista* sp. A.** Probably an undescribed species, near to *E. tubulosa* Herting, 1967 (C. Bergström, pers. comm.)

***Linnaemya* sp. A.** An undescribed species (C. Bergström, pers. comm.). A highly unusual, shiny black *Linnaemya* species from Lapland.

Nemorilla floralis (Fallen, 1810). *N. maculosa* (Meigen, 1824) has been mixed with this species on Hackman's (1980) list. True *floralis* was found new to Finland in 2011 from Loviisa (J. Flinck leg.).

Phebellia sp. A. Probably an undescribed species (J. Flinck leg., T. Zeegers priv. comm.)

Stomorbina lunata (Fabricius, 1805). Recorded once from the University Botanical Gardens in Helsinki (2 exx). It is quite possible that the flies were imported to Finland, but the species is also a known vagrant and the possibility of natural dispersal cannot be excluded.

Tachina sp. aff. *magnicornis*. Close to the real *T. magnicornis* of Zetterstedt. The proper name of this species still under investigation, but may be *T. tetramera* (Zetterstedt, 1849). It is common and widespread in Finland. Some records have been confirmed by the DNA barcoding project (Pohjoismäki et al. 2013). See Tschorsnig et al. (2002) and Novotna et al. (2009).

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