

Changes in the Finnish fauna of fungus gnats (Diptera: Mycetophilidae s. l.) since Hackman's checklist.

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Additions and deletions to the Finnish fauna of fungus gnats since publication of the current check-list of the Finnish Diptera (Hackman 1980a) are summarized. 114 species of fungus gnats were added and 10 species deleted from the list resulting in total number of species in Finnish fauna to be 589. All newly recorded species as well as those not included into Hackman's check list are listed with the indication record source.

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Introduction

Check-list of the Finnish Diptera (Hackman 1980a) included 485 species (of these four species with question mark) of fungus gnats or mycetophilids (Mycetophilidae s. l.). After this publication considerable amount of new materials were obtained from the territory of Finland and many species not included in the list were recorded. Periodical additions/deletions to the list published by Silfverberg (1981, 1986, 1991, 1996, 2001) incorporate all available information on mycetophilids during the period of 1980-2000 with the exception of three omitted species: *Phthinia mira* Ostroverhova, *Mycetophila deflexa* Chandler and *Allodia zaitzevi* Kurina given by Polevoi (2000). Many new records have been published after 2000 (Komonen 2001, Polevoi 2001ab, Polevoi 2003, Zaitzev & Polevoi 2001, Kurina 2003, Polevoi & Hedmark 2004).

Considering new faunistic data and numerous changes in general taxonomy of fungus gnats there is an obvious need for an updated list of Finnish fauna of fungus gnats. In this work we revise all recent changes in the Finnish list of Mycetophilidae s. l. and preliminarily estimate total

number of species recorded from Finland. We considered only real additions or deletions to the list. Other changes, e.g. name substitutions due to misidentification or synonymy, deserve special investigation which is beyond the scope of this work.

Deletions from the list

Ten species are deleted from the checklist. Most of them are synonyms of other species which are also included in the list.

Bolitophila tarsata Mayer – junior synonym of *B. modesta* Lackschewitz, which is also included in the checklist (Zaitzev 1994).

Keroplatus sesioides Wahlberg – junior synonym of *K. tipuloides* Bosc, which is also included in the checklist (Ståhls & Kaila 1990).

Brachypeza hilaris Winnertz – junior synonym of *B. bisignata* Winnertz, which is also included in the checklist (Hackman 1980b).

Trichonta adunca Edwards – junior synonym of *T. atricauda* Zetterstedt, which is also included in the checklist (Gagné 1981).

Trichonta appropinquata Strobl – junior synonym of *T. vulcani* Dziedzicki, which is also included in the checklist (Kallweit 1998).

Trichonta fidelis Gagné – included in the checklist by mistake (Hackman 1982).

Trichonta nigricauda Lundström – junior synonym of *T. vulgaris* Loew, which is also included in the checklist (Gagné 1981).

Mycomya hyalinata Meigen – junior synonym of *M. cinerascens* Macquart, which is also included in the checklist (Väisänen 1984).

Mycomya clavigera Lundström – junior synonym of *M. griseovittata* (= *M. fasciata* Zetterstedt) which is also included in the checklist (Väisänen 1984).

Mycomya fusca Meigen – junior synonym of *M. trilineata* Zetterstedt, which is also included in the checklist (Väisänen 1984).

Additions to the list

Below we list 114 species of fungus gnats which are added to the check list of the Finnish Diptera (Hackman 1980a) based on available records published in 1981–2004. Of these Bolitophilidae comprise four, Diadocidiidae one, Keroplatidae two and Mycetophilidae 107 species. Species which were not included in Silfverberg's reports (1981, 1986, 1991, 1996, 2001) are marked with an asterisk.

Considering these changes the total number of species of fungus gnats in Finnish fauna is 589.

Bolitophilidae

Bolitophila austriaca Mayer – *Kb*: Ilomantsi (Polevoi 1995).

Bolitophila limitis Polevoi – *Kb*: Ilomantsi (Polevoi 1996).

Bolitophila nigrolineata Landrock – *Kb*: Ilomantsi (Polevoi 1995).

Bolitophila obscurior Stackelberg – *Kb*: Ilomantsi (Polevoi 1995).

Diadocidiidae

Diadocidia trispinosa Polevoi – *Kb*: Ilomantsi (Polevoi 1996).

Keroplatidae

Neoplatyura flava (Macquart) – *Kb*: Ilomantsi (Polevoi 1995); *N*: Järvenpää, Lemmenlaakso area (Kurina 2003).

Orfelia falcata A. Zaitzev – *Kb*: Ilomantsi (Polevoi 1996).

Mycetophilidae

Gnoristinae

**Acomoptera difficilis* Dziedzicki – *Kb*: Ilomantsi (Polevoi 2001a).

Boletina dissipata Plassmann – *Al*: Lumparland (Hedmark 1998); *Kb*: Ilomantsi (Polevoi 2001a).

Boletina edwardsi Chandler – *Ab*: [Salo:] Kotalato & Helisnummi (Chandler 1992).

**Boletina erythropyga* Holmgren – *Kb*: Ilomantsi (Zaitzev & Polevoi 2001).

**Boletina lundbecki* Lundström – *Lk*: Pallastunturi (Lundström 1912). In the Hackman's check list this species was given in as a synonym of *B. nasuta* Haliday.

**Boletina nitiduloides* A. Zaitzev – *Kb*: Ilomantsi (Polevoi 2001a).

**Boletina onegensis* Polevoi – *Kb*: Ilomantsi (Polevoi 2001a).

**Boletina populina* Polevoi – *Kb*: Ilomantsi (Polevoi 2001a).

**Boletina falcata* Polevoi & Hedmark – *Kb*: Ilomantsi; *Ok*: Kuhmo, Sotkamo (Polevoi & Hedmark 2004).

**Boletina hedstroemi* Polevoi & Hedmark – *Ok*: Kuhmo (Polevoi & Hedmark 2004).

**Boletina struthoides* Polevoi & Hedmark – *Le*: Kilpisjärvi (Polevoi & Hedmark 2004).

**Boletina kivachiana* Polevoi & Hedmark – *Ok*: Kuhmo (Polevoi & Hedmark 2004).

**Boletina fennoscandica* Polevoi & Hedmark – *Ok*: Kuhmo (Polevoi & Hedmark 2004).

**Boletina subtriangularis* Polevoi & Hedmark – *Li*: Utsijoki (Polevoi & Hedmark 2004).

**Boletina cordata* Polevoi & Hedmark – *Kb*: Ilomantsi; *Ks*: Kuusamo (Polevoi & Hedmark 2004).

Coelosia bicornis Stackelberg – *Ob*: Rovaniemi, Pisavaara (Söli 1997).

Ectrepesthoneura referta Plassmann *Kb*: Ilomantsi (Polevoi 1995).

**Impleta consorta* Plassmann – *N*: Järvenpää, Lemmenlaakso area (Kurina 2003).

Palaeodocosia janickii (Dziedzicki) – *Al*: Lumparland (Hedmark 1998); *Kb*: Ilomantsi (Polevoi 2001a).

**Sytemna stylata* Hutson – *Kb*: Ilomantsi (Polevoi 2001a).

**Sytemna stylatoides* A. Zaitzev – *Kb*: Ilomantsi (Polevoi 2001a).

**Sytemna elegantia* Plassmann – *Kb*: Ilomantsi (Polevoi 2003).

**Sytemna morosa* Winnertz – *Kb*: Ilomantsi; *Ta*: Padasjoki, Vesijako; *Ks*: Juuma; *Tb*: Virrat, Lakeisnevankangas (Polevoi 2003).

**Sytemna oulankaensis* Polevoi – *Ks*: Kuusamo, Juuma (Polevoi 2003).

**Tetragoneura ambigua* Grzegorzec – *Kb*: Ilomantsi (Polevoi 2001a).

**Tetragoneura obirata* Plassmann – *Kb*: Ilomantsi (Polevoi 2001a).

Leiinae

**Greenomyia baikalica* A. Zaitzev – *Kb*: Ilomantsi (Polevoi 2001a).

Leia crucigera Zetterstedt – *Al*: Lumparland (Hedmark 1998).

Mycetophilinae

Exechiini

Allodia adunata A. Zaitzev – *Kb*: Ilomantsi (Polevoi 1995).

**Allodia embla* Hackman – *Kb*: Ilomantsi (Polevoi 2001a).

Allodia pyxidiformis A. Zaitzev – *N*: Espoo; *Le*: Kilpisjärvi (Ståhls 1986); *Kb*: Ilomantsi (Polevoi 2001a).

**Allodia simplex* A. Zaitzev – *Kb*: Ilomantsi (Polevoi 2001a).

**Allodia zaitzevi* Kurina – *Kb*: Ilomantsi (Polevoi 2000).

Anatella aquila A. Zaitzev – *Kb*: Ilomantsi (Polevoi 1995).

**Anatella bremia* Chandler – *Kb*: Ilomantsi (Polevoi 2001a).

Anatella ciliata Winnertz – *Kb*: Ilomantsi (Polevoi 1995); *N*: Järvenpää, Lemmenlaakso area (Kurina 2003).

**Anatella crispata* A. Zaitzev – *Kb*: Ilomantsi (Polevoi 2001a).

Anatella flavomaculata Edwards – *Kb*: Ilomantsi (Polevoi 1995).

**Anatella gibba* Winnertz – *N*: Järvenpää, Lemmenlaakso area (Kurina 2003).

Anatella lenis Dziedzicki – *Kb*: Ilomantsi (Polevoi 1995)

Anatella maritima Ostroverkhova – *Kb*: Ilomantsi (Polevoi 1995).

**Anatella novata* Dziedzicki – *Al*: Lumparland (Hedmark 2000).

Anatella setigera Edwards – *Kb*: Ilomantsi (Polevoi 1995); *N*: Järvenpää, Lemmenlaakso area (Kurina 2003).

Anatella turi Dziedzicki – *Kb*: Ilomantsi (Polevoi 1995).

**Brachypeza armata* Winnertz – *Kb*: Ilomantsi (Polevoi 2001a).

**Brevicornu beatum* Johansen – *Kb*: Ilomantsi (Polevoi 2001a).

Brevicornu bellum Johannsen – *Kb*: Ilomantsi (Polevoi 1995).

**Brevicornu bipartitum* Laštovka & Matile – (Polevoi 2001a).

Brevicornu foliatum Edwards – *Kb*: Ilomantsi (Polevoi 1995).

**Brevicornu improvisum* A. Zaitzev – *Kb*: Ilomantsi (Polevoi 2001a).

Brevicornu senulosum A. Zaitzev – *Kb*: Ilomantsi (Polevoi 1995).

**Cordyla nitens* Winnertz – *Kb*: Ilomantsi (Polevoi 2001a).

Cordyla parvipalpis Edwards – *Al*: Lumparland (Hedmark 1998); *Kb*: Ilomantsi (Polevoi 1995).

**Cordyla styliforceps* Bukowski – *Kb*: Ilomantsi (Polevoi 2001a).

Exechia papyracea Stackelberg – *Kb*, *Ok*, *Ks* (Ståhls 1990).

**Exechia pectinivalva* Stackelberg – *Kb*: Ilomantsi (Polevoi 2001a).

Exechia repanda Johannsen – *N*: Helsinki, Pyhtää (Väisänen 1981); *Kb*: Ilomantsi (Polevoi 2001a).

**Exechiopsis clypeata* Lundström – *N*: Järvenpää, Lemmenlaakso area (Kurina 2003).

Exechiopsis sagittata Laštovka & Matile – *Kb*: Ilomantsi (Polevoi 1995).

Pseudexechia aurivernica Chandler – *Kb*: Ilomantsi (Polevoi 1995).

Mycetophilini

**Dynatosoma dihaeta* Polevoi – *Kb*: Ilomantsi (Polevoi 2001a).

**Dynatosoma norwegiense* A. Zaitzev & Økland – *Kb*: Ilomantsi (Polevoi 2001a).

**Mycetophila abiecta* Laštovka – *Kb*: Ilomantsi (Polevoi 2001a).

Mycetophila assimilis Matile – *Kb*: Ilomantsi (Polevoi 1995).

**Mycetophila brevitarsata* Laštovka – *N*: Esbo (Laštovka 1963); *Kb*: Ilomantsi (Polevoi 2001a). This species was omitted in Hackman's check list.

**Mycetophila curviseta* Lundström – *Kb*: Ilomantsi (Polevoi 2001a).

**Mycetophila deflexa* Chandler – *Kb*: Ilomantsi (Polevoi 2000).

Mycetophila estonica Kurina – *Kb*: Ilomantsi (Polevoi 1995).

Mycetophila perpallida Chandler – Finland (Chandler 1993).

**Mycetophila pseudoforcepata* A. Zaitzev – *N*: Järvenpää, Lemmenlaakso area (Kurina 2003).

Mycetophila stricklandi Laffoon – *Kb*: Ilomantsi (Polevoi 1995).

Mycetophila strigatooides Landrock – *Ab*, *N*, *Ok* (Ståhls 1990); *Kb*: Ilomantsi (Polevoi 2001a).

**Mycetophila sublimata* A. Zaitzev – *N*: Järvenpää, Lemmenlaakso area (Kurina 2003).

Phronia gagnei Chandler – *Kb*: Ilomantsi (Polevoi 1995).

**Phronia coritanica* Chandler – *N*: Järvenpää, Lemmenlaakso area (Kurina 2003).

**Sceptonia costata* Van der Wulp – *Kb*: Ilomantsi (Polevoi 2001a).

**Sceptonia fumipes* Edwards – *Kb*: Ilomantsi (Polevoi 2001a).

**Sceptonia fuscipalpis* Edwards – *Kb*: Ilomantsi (Polevoi 2001a).

**Sceptonia membranacea* Edwards – *Kb*: Ilomantsi (Polevoi 2001a).

Zygomyia pseudohumeralis Caspers – Finland (Chandler 1991); *Kb*: Ilomantsi (Polevoi 2001a).

**Zygomyia kiddi* Chandler – Finland (Chandler 1991); *Kb*: Ilomantsi (Polevoi 2001a).

Mycomyiinae

Mycomya avala Väisänen – *Ab*: Vihti; *Sb*: Kuopio (Väisänen 1984).

Mycomya disa Väisänen – *Ab, N, Ka, Kb, Ok, Ob, Ks, Li* (Väisänen 1984).

Mycomya festivalis Väisänen – *Kb, Ok, Ks* (Väisänen 1984).

Mycomya hackmani Väisänen – *Ab, N, Kb, Ok, Ks, Li* (Väisänen 1984).

Mycomya islandica Väisänen – *Li*: Utsjoki (Väisänen 1984).

Mycomya leporina Väisänen – *Ob*: Rovaniemi (Väisänen 1984).

Mycomya mituda Väisänen – *Ab*: Kaarina (Väisänen 1980).

Mycomya neohyalinata Väisänen – *Al, Ab, N, Ka, Ta, Sa, Kb, Om, Ok, Ob, Ks* (Väisänen 1984).

Mycomya neolittoralis Väisänen – *Ka*: Vehkalahti (Väisänen 1984).

Mycomya permixta Väisänen – *Ab, N, Ka, Ta, Sa, Om, Ob, Ks, Li* (Väisänen 1984).

**Mycomya simulans* Väisänen – *Kb*: Ilomantsi (Polevoi 2001b).

Neoempheria tuomikoskii Väisänen – *Ab*: Vihti, Vihtijärvi (Väisänen 1982); *Kb*: Ilomantsi (Polevoi 2001a).

Sciophilinae

**Acnemia angusta* A. Zaitzev – *Kb*: Ilomantsi (Polevoi 2001a).

**Acnemia falcata* A. Zaitzev – *Kb*: Ilomantsi (Polevoi 2001a).

**Acnemia longipes* Winnertz – *Kb*: Ilomantsi (Polevoi 2001a).

Coelophthiria thoracica (Winnertz) – *Kb*: Ilomantsi (Polevoi 1995); *Al*: Lumparland (Hedmark 1998).

**Leptomorphus subforcipatus* A. Zaitzev & Ševčík – *Kb*: Ilomantsi (Polevoi 1995 – as *L. quadrimaculatus* Matsumura, misident.; Zaitzev & Ševčík 2002).

**Monoclona braueri* Strobl – *Kb*: Ilomantsi (Polevoi 2001a).

Paratinia sciarina Mik – *Kb*: Ilomantsi (Polevoi 1995); *N*: Järvenpää, Lemmenlaakso area (Kurina 2003).

**Phthiria congenita* Plassmann – *Kb*: Ilomantsi (Polevoi 2001a).

**Phthiria mira* Ostroverhova – *Kb*: Ilomantsi (Polevoi 2000).

**Sciophila antiqua* Chandler (as *S. hebes* Johansen, misident.) – *Kn*: Kuhmo, Issakka (Komonen 2001).

Sciophila buxtoni Freeman – *Kb*: Ilomantsi (Polevoi 1995).

**Sciophila jakutica* Blagoderov – *Kb*: Ilomantsi (Polevoi 2001a).

**Sciophila krysheni* Polevoi – *Kb*: Ilomantsi (Polevoi 2001b).

Sciophila thoracica Staeger (as *S. quadrirgera* Hutson, junior synonym) – *Kb*: Ilomantsi (Polevoi 1995).

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