

A review of fungus gnats in the tribe Exechiini (Diptera, Mycetophilidae) from the J. W. Zetterstedt collection at the Museum of Zoology in Lund, Sweden

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Abstract

The collections of fungus gnats by Johan Wilhelm Zetterstedt (1785–1874), lodged in the Museum of Zoology in Lund, Sweden, are examined for all species belonging in the tribe Exechiini Edwards. The majority of the material was collected in Fennoscandia, mainly in Sweden, in the first half of the 19th century. Altogether 37 species of the tribe Exechiini could be safely identified. Three additional species are strongly indicated to be present in the collections, but could not be identified with certainty, viz. *Allodia (Brachycampta) alternans* (Zetterstedt, 1838), *Cordyla murina* Winnertz, 1863 and *Stigmatomeria crassicornis* (Stannius, 1831). Some of Zetterstedt's types have been erroneously synonymized and misinterpreted in modern literature. Hence, illustrations of terminalia are presented for all recognizable Exechiini types described by Zetterstedt. In order to preserve nomenclatural stability a **lectotype** is selected for *Brevicornu griseolum* (Zetterstedt, 1852) sensu auctore nec Edwards, and a **neotype** is selected for *Allodia (Brachycampta) alternans* (Zetterstedt, 1838). Two species names are reinstated, viz. *Brevicornu canescens* (Zetterstedt, 1852) **sp. restit. stat. n.** and *Notolopha brachycera* (Zetterstedt, 1838) **sp. restit. stat. n.** Two new synonyms are established, viz. *Notolopha brachycera* (Zetterstedt, 1838) = *Allodiopsis (Notolopha) tuomikoskii* Zaitzev & Maximova, 2000 **syn. n.**, and *Brevicornu griseolum* (Zetterstedt,

1852) = *Brevicornu boreale* (Lundström, 1914) **syn. n.** All type specimens of *Brevicornu fusculum* (Zetterstedt, 1838) have lost their abdomens. No material of *Exechia parvula* (Zetterstedt, 1852) or *Cordyla canescens* Zetterstedt, 1852 could be located in the collections. Although the type material of *Exechia parvula* probably is lost, the name is still valid as a junior synonym for *Mycetophila nana* Staeger, 1840 since *Mycetophila nana* Staeger, 1840 is a junior primary homonym of *Mycetophila nana* Macquart, 1826. *Cordyla canescens* has been made a junior synonym for *Stigmatomeria crassicornis* (Stannius, 1831). The identity of *Brevicornu fusculum* is highly uncertain and the name must remain as a **nomen dubium**. Eleven species are reinstated or correctly reported from Sweden for the first time: *Allodia (Allodia) tuomikoskii* Hackman, 1971, *Allodia (Allodia) zaitzevi* Kurina, 1998, *Allodiopsis rustica* (Edwards, 1941), *Brevicornu canescens* (Zetterstedt, 1852), *Brevicornu nigrofuscum* (Lundström, 1909), *Exechiopsis (Xenexechia) crucigera* (Lundström, 1909), *Pseudexechia aurivernica* Chandler, 1978, *Notolopha brachycera* (Zetterstedt, 1852) *Synplasta gracilis* (Winnertz, 1863), *Tarnania dziedzickii* (Edwards, 1941), and *Tarnania nemoralis* (Edwards, 1941).

Key words: Mycetophilidae, fungus gnats, Exechiini, coll. Zetterstedt, MZLU, Sweden, synonymy, lectotype, neotype

Introduction

Johan Wilhelm Zetterstedt (1785–1874) was professor of natural history at the university of Lund between 1840 and 1853 (Fig. 1). He was a specialist on Diptera of which he collected and described more than 1000 species from Scandinavia in his monumental works "*Insecta Lapponica*" (Zetterstedt 1838) and "*Diptera Scandinaviae*" (Zetterstedt 1842, 1843, 1844, 1845, 1846, 1847, 1848, 1849, 1850, 1851, 1852, 1855, 1859, 1860). Two large collecting expeditions to the taiga of Sweden, Norway and Finland in 1821 and Sweden in 1832 produced the major part of the collections. In addition several smaller collections from various parts of Fennoscandia are included, as well as a separate collection named "*Exotic*" from various localities outside Fennoscandia. F. W. Edwards visited Lund in the summer of 1923 and studied most of Zetterstedt's types of fungus gnats. Based on this visit Edwards (1924) presented a number of nomenclatural changes. Apart from this the collection of fungus gnats seemingly has remained unrevised with respect to the tribe Exechiini.

Modern classification of fungus gnats (superfamily Sciaroidea) largely follows Edwards (1925) who divided what was then called family Mycetophilidae into ten subfamilies and six tribes. Seven of Edwards' subfamilies have later been raised to family level (Matile 1990, 1997). Edwards' six tribes, however, all within family Mycetophilidae (s.s.), are still widely accepted (e.g. Hackman et al. 1988) although with a somewhat modified composition of genera (e.g. Sjøli 1997). With a few exceptions the single genus *Mycetophila* Meigen, 1803 as treated by Zetterstedt conforms to the entire subfamily Mycetophilinae *sensu* Edwards. The exceptions are a few species placed in *Pachypalpus* Macquart, 1834 [= *Cordyla* Meigen, 1803] and one species misplaced by Zetterstedt in *Cordyla* Meigen, 1803.



FIGURE 1. Portrait of Johan Wilhelm Zetterstedt (1785–1874). Facsimile from *Diptera Scandinaviae*, volume 1 (Zetterstedt 1842).

The tribe Exechiini Tuomikoski is one of two tribes of the subfamily Mycetophilinae, and was defined by Tuomikoski (1966) to include 14 genera and 12 subgenera. Four of his subgenera and the Neotropical *Boraceomyia* Lane have later been raised to generic status within the tribe. Hence, the tribe Exechiini as presently defined consists of 19 genera and more than 500 species worldwide (Søli et al. 2000, Bechev 2000). In Fennoscandia we find representatives of 17 of these genera, and about half of the hitherto described species in the world. As a part of the Swedish Taxonomic Initiative (http://www.artdata.slu.se/Svenska_artprojektet_Eng.htm) the author is engaged in taxonomic reviews of Exechiini genera in Fennoscandia. A review of the Zetterstedt collections is an integral part of this project and forms a starting point for the larger aim that is to systematize the collections of fungus gnats at the Museum of Zoology in Lund. A similar project to systematize the collections of fungus gnats at the Swedish Museum of Natural History in Stockholm was initiated by Kurina (2003).

Material and methods

The Zetterstedt collections of fungus gnats consist of pinned specimens stored in four separate collections:

1. The "Insecta Lapponica" collection [where Exechiini specimens were found in the drawer labelled "132. Coll. Zetterstedt Insecta lapponica 22, Diptera 8, kompletteringslåda 1 til Diptera Scandinaviae F.d. skåp 19, Låda 20–21"],
2. The "Diptera Scandinaviae" collection [where Exechiini specimens were found in the drawer labelled "Låda 62, Gen. Mycetophila – Chionia, pag. 4170–4258"]
3. The "Göteborg" collection [where Exechiini specimens were found in the drawer labelled "110. Coll. Zetterstedt Göteborgsamlingen 29, F.d. skåp 20, låda 9–10"]
4. The "Exotic" collection [where Exechiini specimens were found in the drawer labelled "81. Coll. Zetterstedt Diptera exotica 11, F.d. skåp 20, låda 23–24"].

Zetterstedt supposedly moved many specimens in between the collections and most of them ended up in the "Diptera Scandinaviae" collection (Fig. 2A) where they form the basis for the *Diptera Scandinaviae* book series. Thus, the sequential order of the specimens in the "Diptera Scandinaviae" collection follow in most cases the order in which they are presented in the *Diptera Scandinaviae* publications. The majority of the specimens have handwritten labels with species name and sex (Fig. 2B). Some specimens have full labels including locality and date (Fig. 2C). In addition most collecting localities are indicated by the presence of small, coloured, quadrangular bits of paper on the pins. The code of these colour tags was published in Dahlbom's handwritten "Museum Entomologicum Lundense" (Dahlbom 1850) and have later been typewritten and made available at the museum by the curator Roy Danielsson. The codes are as follows:

- Light yellow (lemon colour): Insects collected east and southeast of Lund in Skåne (Scania), e.g. Flyinge, Räfte, Fågelsång, Abusa, Silvåkra a.o.
- Purple red: From the town Lund and its neighbourhood.
- Purple red + light yellow on the same pin: From Björnstorp Säteri in Malmöhus län (Skåne).
- Purple red + light blue on the same pin: From Esperöd in Tranås parish in Skåne (Scania), where prof. Zetterstedt was staying the whole summer of 1820.
- Light blue: From Kivik's Esperöd in Mellby parish in Skåne (Scania).
- Golden paper: From the province Västergötland (Westrogothia).
- Ochreous yellow: From the province Östergötland (Ostrogothia).
- Lilac: From Öland and Kalmar (Calmare) län.
- Lilac + red on the same label: From Gotland.
- Light green: Insects collected during the trip in 1840 to Jämtland and Norway in the vicinity of Levanger.

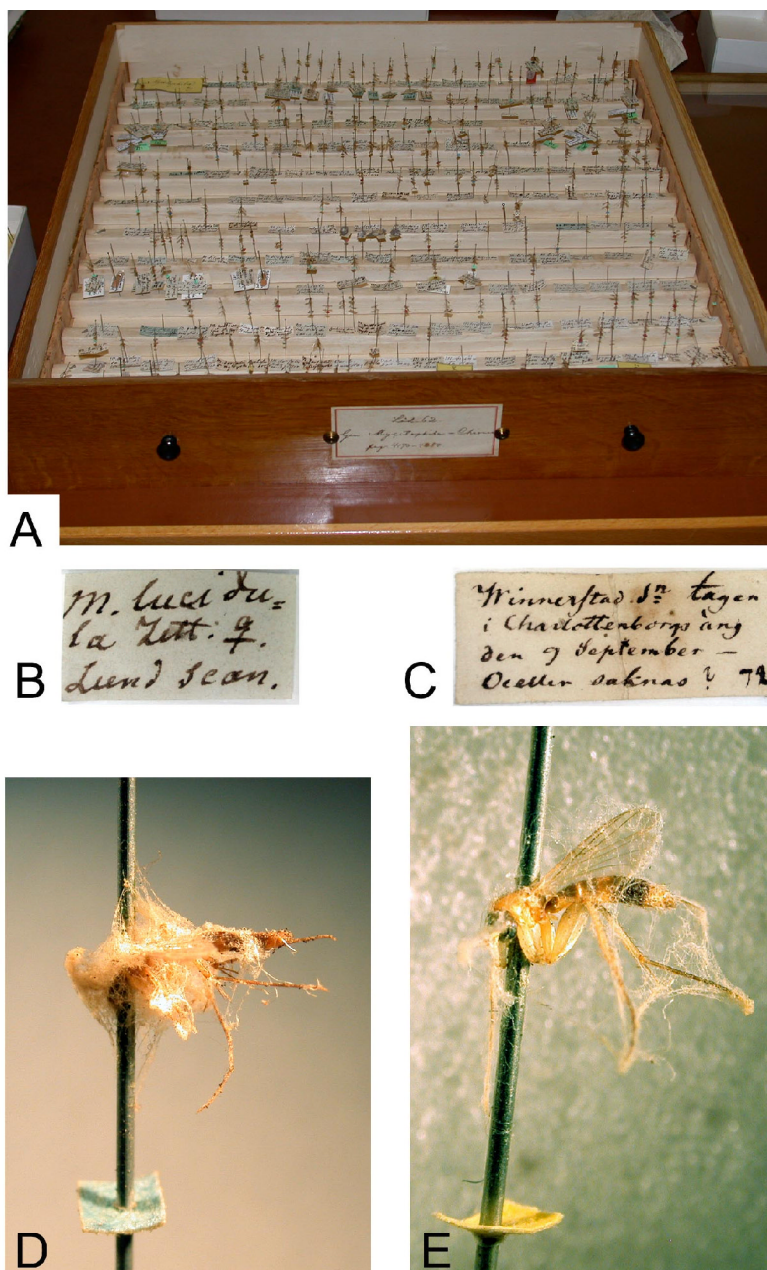


FIGURE 2. – A. Drawer no. 62 of Zetterstedt's "Diptera Scandinaviae" collection containing most of the Exechiini specimens. – B. Example of Zetterstedt's handwritten determination labels interpreted as "*M. lucidula* Zett. ♀. Lund Scan.". – C. Example of Zetterstedt's handwritten locality labels interpreted as "Winnerstad sn tagen i Charlottenborgs äng den 9 september – Oceller saknas? 72". – D. Specimen no. SPM-004744. Inside this web of dust and fungal sporophores a nearly two hundred year old male of *Allodia* (*Allodia*) *ornaticollis* (Meigen, 1818) was found in fairly good condition. The light blue quadrangular piece of paper indicate that this specimen was collected in Skåne at Kivik's Esperöd in Mellby parish. – E. Specimen no. SPM-005154, a male *Allodia* (*Brachycampta*) *grata* (Meigen, 1830) in relative good condition. The light yellow piece of paper (together with a purple red piece not seen on the photo) indicate that this specimen was collected in Skåne at Björnstorp Säteri in Malmöhus län.

- Black: Insects collected during the trip in 1832 to Västerbotten, Lycksele and Åsele lappmark.
- White: Insects collected during the trip in 1821 to Västerbotten, Norrbotten and Torne lappmark, the Norwegian province Nordland (Norlanden) and Finnmark (Finnmarken up to Alta near North Cape), and in some parts of Finland.

Zetterstedt also borrowed many specimens from R. C. Staeger who simultaneously worked on Danish Diptera at the Zoological Museum in Copenhagen (Staeger 1840). When returned Staeger's specimens seem to have been replaced by Zetterstedt's handwritten labels on empty pins. In a few cases Staeger's material remains in the Zetterstedt collection. These specimens, however, are poorly labelled and cannot be dated and in most cases can only be assumed to be collected in Denmark.

From the four collections all specimens identified by Zetterstedt as *Cordyla* Meigen, *Mycetophila* Meigen and *Pachypalpus* Maquart have been searched through and all specimens found to belong to the tribe Exechiini further examined. Many specimens were found covered by a web of dust (Fig. 2D–E) but, nevertheless, most specimens remained in a condition good enough to enable determination to species level. The abdomen of all males and most females were detached, cleared in 10% KOH and neutralized in acetic acid. Most of them were then washed in distilled water and absolute alcohol, and placed in tiny glycerine vials on the same pin as the rest of the body. In a few cases, indicated in the text, permanent slides in Canada balsam had to be made in order to see specific details and make satisfactory drawings. Otherwise, all specimens were restored in their original position in the collection and were kept with original labels. Further, all specimens were given new determination labels including specimen identification numbers corresponding to SPM-numbers as recorded in the Biota 2 database software (Colwell 2004). In the following species list all readable text on the original labels will be presented in full text. In a few cases where the interpretation of a word is unclear this is denoted as "XXX" in the label text. Whenever a positive link between a specimen and its description in the respective publication by Zetterstedt was encountered, the publication with page reference is specified. Otherwise, the name of the collection is specified. The lists of synonyms are not exhaustive but rather aim to cover all correct names used by Zetterstedt and other names of relevance for the interpretation of his types.

Result

Altogether 28 of the names used by Zetterstedt in the Zetterstedt collections were found to belong to species now referable to the tribe Exechiini (Table 1). In addition there were also some specimens regarded as varieties by Zetterstedt and some undetermined specimens. In total the Exechiini material comprises 56 males, 58 females, and 23 specimens that had lost their abdomen and, hence, could not be sexed nor determined beyond genus level. In

result of my revision, 37 species could be safely identified, while three additional species were strongly indicated to be present in the collections, but could not be doubtlessly identified due to the poor condition of the specimens. They are denoted with a "cf." in front of the species epithet and further commented on. Species reinstated or representing first correct record from Sweden are denoted with a * in front of the species name.

TABLE 1. Alphabetic list of the names used by Zetterstedt that are now referable to the tribe Exechiini, with present type status, current usage of the name and the revised determination results. "ex." denotes unsexed specimens lacking abdomen.

Names used by Zetterstedt	Type status	Current name		In result of revision
<i>Mycetophila alternans</i> Zett.	holotype	<i>Allodia (Br.) alternans</i> (Zetterstedt, 1838)	1 ex.	<i>Allodia (Br.) alternans</i> (Zetterstedt, 1838)
–	–	–	1 ♂	<i>Allodia (A.) ornatcollis</i> (Meigen, 1818)
–	–	–	1 ♂	<i>Allodia (Br.) grata</i> (Meigen, 1830)
–	–	–	1 ♀	<i>Allodia (Br.)</i> sp.
–	–	–	1 ♀	<i>Brevicornu</i> sp.
<i>Mycetophila alternans</i> Zett. var.	–	–	1 ex.	<i>Allodia (Br.)</i> sp.
–	–	–	1 ♀	<i>Brevicornu</i> sp.
<i>Mycetophila analis</i> Meig.	junior synonym	<i>Allodia (A.) lugens</i> (Wiedemann, 1817)	1 ♀	<i>Allodia (A.)</i> sp.
<i>Mycetophila bicincta</i> Stæg.	–	<i>Exechia bicincta</i> (Staeger, 1840)	1 ♂	<i>Exechia dizona</i> Edwards, 1924
<i>Mycetophila bicolor</i> Meig.	–	? unknown name	1 ♂	<i>Brevicornu sericoma</i> (Meigen, 1830)
<i>Mycetophila bicolour</i> Macq.	nomen dubium	<i>Mycetophila bicolour</i> Macquart, 1826	1 ♂	<i>Brevicornu fuscipenne</i> (Staeger, 1840)
–	–	–	1 ♀	<i>Brevicornu fuscipenne</i> (Staeger, 1840)
–	–	–	2 ex.	<i>Brevicornu</i> sp.
<i>Mycetophila bicolour</i> Macq. var. b.	–	–	2 ♀♀	<i>Brevicornu</i> sp.
<i>Mycetophila brachycera</i> Zett.	holotype	<i>Notolopha brachycera</i> (Zetterstedt, 1852)	1 ♂	<i>Notolopha brachycera</i> (Zetterstedt, 1852)

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TABLE 1 continued

Names used by Zetterstedt	Type status	Current name		In result of revision
<i>Mycetophila canescens</i> Zett.	holotype	<i>Brevicornu canescens</i> (Zetterstedt, 1852)	1 ♂	<i>Brevicornu canescens</i> (Zetterstedt, 1852)
<i>Mycetophila discicollis</i> Stæg.	nomen dubium	<i>Mycetophila discicollis</i> Staeger, 1840	1 ♂	<i>Allodiopsis rustica</i> (Edwards, 1941)
<i>Mycetophila discoidea</i> Meig.		<i>Allodia (Br.) discoidea</i> Meigen, 1818	1 ex.	<i>Brevicornu</i> sp.
—		—	6 ♂♂	<i>Rymosia fasciata</i> (Meigen, 1804)
—		—	2 ex.	<i>Rymosia</i> sp.
—		—	1 ♂	<i>Tarnania dziedzickii</i> (Edwards, 1941)
—		—	1 ♀	<i>Tarnania dziedzickii</i> (Edwards, 1941)
—		—	1 ♀	<i>Tarnania nemoralis</i> (Edwards, 1941)
<i>Mycetophila dorsalis</i> Stæg.		<i>Exechia dorsalis</i> (Staeger, 1840)	2 ♀♀	<i>Exechia contaminata</i> Winnertz, 1863
—		—	1 ♂	<i>Exechia pseudocincta</i> Strobl, 1910
—		—	1 ♂	<i>Exechia seriata</i> (Meigen, 1830)
—		—	1 ♀	<i>Exechia seriata</i> (Meigen, 1830)
<i>Mycetophila fasciata</i> Meig.		<i>Rymosia fasciata</i> (Meigen, 1804)	1 ex.	<i>Rymosia</i> sp.
<i>Mycetophila fusca</i> Meig.		<i>Exechia fusca</i> (Meigen, 1804)	1 ♂	<i>Allodia (A.) ornatcollis</i> (Meigen, 1818)
—		—	1 ♂	<i>Exechia frigida</i> (Boheman, 1865)
—		—	2 ♀♀	<i>Exechia frigida</i> (Boheman, 1865)
—		—	3 ♂♂	<i>Exechia fusca</i> (Meigen, 1804)
—		—	2 ♂♂	<i>Exechia separata</i> Lundström, 1912
—		—	4 ♂♂	<i>Exechia spinuligera</i> Lundström, 1912

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TABLE 1 continued

Names used by Zetterstedt	Type status	Current name		In result of revision
<i>Mycetophila fusca</i> Meig.		<i>Exechia fusca</i> (Meigen, 1804)	1 ♀	<i>Exechia spinuligera</i> Lundström, 1912
–		–	2 ex.	<i>Exechia</i> sp.
–		–	1 ex.	<i>Exechiopsis</i> (<i>E.</i>) sp.
<i>Mycetophila fuscula</i> Zett.	nomen dubium	<i>Mycetophila fuscula</i> Zetterstedt, 1838	3 ex.	<i>Brevicornu</i> sp.
<i>Mycetophila griseola</i> Zett.	lectotype	<i>Brevicornu griseolum</i> (Zetterstedt, 1852)	1 ♂	<i>Brevicornu griseolum</i> (Zetterstedt, 1852)
–	paralectotype	–	1 ♂	<i>Brevicornu griseolum</i> (Zetterstedt, 1852)
–	paralectotypes	–	2 ♀	<i>Brevicornu griseolum</i> (Zetterstedt, 1852)
<i>Mycetophila griseola</i> Zett.?		–	1 ♂	<i>Brevicornu nigrofuscum</i> (Lundström, 1909)
<i>Mycetophila guttiventris</i> Meig.	junior synonym	<i>Exechia fusca</i> (Meigen, 1804)	1 ♀	<i>Exechia contaminata</i> Winnertz, 1863
–		–	3 ♂♂	<i>Exechia fusca</i> (Meigen, 1804)
–		–	9 ♀♀	<i>Exechia fusca</i> (Meigen, 1804)
–		–	2 ex.	<i>Exechia</i> sp.
<i>Mycetophila interrupta</i> Zett.	junior synonym	<i>Exechia bicincta</i> (Staeger, 1840)	1 ♂	<i>Exechia bicincta</i> (Staeger, 1840)
<i>Mycetophila lateralis</i> Meig.	junior synonym	<i>Exechia fusca</i> (Meigen, 1804)	1 ♀	<i>Exechia fusca</i> (Meigen, 1804)
–		–	1 ♀	<i>Exechia separata</i> Lundström, 1912
<i>Mycetophila leptura</i> Meig.		<i>Exechiopsis</i> (<i>X.</i>) <i>leptura</i> (Meigen, 1830)	1 ♂	<i>Exechiopsis</i> (<i>X.</i>) <i>crucigera</i> (Lundström 1909)
<i>Mycetophila lucidula</i> Zett.	holotype	<i>Exechia lucidula</i> (Zetterstedt, 1838)	1 ♂	<i>Exechia lucidula</i> (Zetterstedt, 1838)
–		–	1 ♂	<i>Exechia lucidula</i> (Zetterstedt, 1838)
<i>Mycetophila maculosa</i> Meig.		<i>Myriosa maculosa</i> (Meigen, 1818)	2 ex.	<i>Allodiopsis</i> s.l. spp.

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TABLE 1 continued

Names used by Zetterstedt	Type status	Current name		In result of revision
<i>Mycetophila maculosa</i> Meig.		<i>Myriosa maculosa</i> (Meigen, 1818)	1 ex.	<i>Rymosia</i> sp.
–		–	1 ♂	<i>Synplasta gracilis</i> Winnertz, 1863
–		–	1 ♀	<i>Synplasta gracilis</i> Winnertz, 1863
<i>Mycetophila nigricollis</i> Zett.	junior synonym	<i>Allodia (A.) ornatcollis</i> Meig. (Meigen, 1818)	1 ♂	<i>Allodia (A.) ornatcollis</i> Meig. (Meigen, 1818)
–		–	1 ♂	<i>Allodia (A.) truncata</i> Edwards, 1921
–		–	1 ex.	<i>Allodia (A.)</i> sp.
–		–	1 ♂	<i>Notolopha cristata</i> (Staeger, 1840)
–		–	1 ♀	<i>Notolopha cristata</i> (Staeger, 1840)
<i>Mycetophila ochracea</i> Zett.	junior synonym	<i>Exechia seriata</i> (Meigen, 1830)	3 ♀ ♀	<i>Exechia seriata</i> (Meigen, 1830)
<i>Mycetophila ornatcollis</i> Meig.		<i>Allodia (A.) ornatcollis</i> (Meigen, 1818)	1 ♂	<i>Allodia (A.) ornatcollis</i> (Meigen, 1818)
–		–	1 ♂	<i>Allodia (A.) lugens</i> (Wiedemann, 1817)
–		–	1 ♂	<i>Allodia (A.) septentrionalis</i> Hackman, 1971
–		–	2 ♂	<i>Allodia (A.) tuomikoskii</i> Hackman, 1971
–		–	1 ♂	<i>Allodia (A.) zaitzevi</i> Kurina, 1998
–		–	1 ♀	<i>Allodia (A.)</i> sp.
<i>Mycetophila ornatcollis</i> Meig. var. a.		–	5 ♀ ♀	<i>Allodia (A.)</i> sp.
–		–	2 ex.	<i>Allodia (A.)</i> sp.
<i>Mycetophila ornatcollis</i> Meig. var. c.		–	1 ♂	<i>Brevicornu griseicolle</i> (Staeger, 1940)

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TABLE 1 continued

Names used by Zetterstedt	Type status	Current name		In result of revision
<i>Mycetophila ornatcollis</i> Meig. var. d.		<i>Allodia (A.) ornatcollis</i> (Meigen, 1818)	5 ♀♀	<i>Allodia (A.)</i> sp.
<i>Mycetophila ornatcollis</i> Meig. var. e.		–	3 ♀♀	<i>Allodia (A.)</i> sp.
<i>Mycetophila spinicoxa</i> Zett.	junior synonym	<i>Stigmatomeria crassicornis</i> (Stannius, 1831)	1 ♀	<i>Stigmatomeria</i> cf. <i>crassicornis</i> (Stannius, 1831)
<i>Mycetophila tarsata</i> Stæg.	nomen dubium	<i>Mycetophila tarsata</i> Stae-ger, 1840	1 ♂	<i>Exechia fusca</i> (Meigen, 1804)
<i>Mycetophila trivittata</i> Stæg. var. a.		<i>Pseudexechia trivittata</i> (Staeger, 1840)	1 ♂	<i>Pseudexechia trivittata</i> (Staeger, 1840)
<i>Mycetophila trivittata</i> Stæg. var. b.		? <i>Pseudexechia trivittata</i> (Edwards, 1913)	1 ♂	<i>Pseudexechia aurivernica</i> Chandler, 1978
<i>Mycetophila unimaculata</i> Zett.	holotype	<i>Exechia unimaculata</i> (Zetterstedt, 1860)	1 ♀	<i>Exechia unimaculata</i> (Zetterstedt, 1860)
<i>Pachipalpus cinereus</i> Zett.	junior synonym	<i>Cordyla crassicornis</i> Meigen, 1818	1 ♂	<i>Cordyla crassicornis</i> Meigen, 1818
–		–	1 ♀	<i>Cordyla crassicornis</i> Meigen, 1818
–		–	1 ♀	<i>Cordyla</i> cf. <i>murina</i> Winnertz, 1863
–		–	1 ex.	<i>Cordyla</i> sp.
–		–	1 ♀	<i>Brevicornu</i> sp.
undetermined by Zetterstedt			1 ex.	<i>Allodia (A.)</i> sp.
–			1 ♀	<i>Allodia (A.)</i> sp.
–			1 ♂	<i>Anatella simpatica</i> Dziedzicki, 1923
–			2 ♀♀	<i>Exechia frigida</i> (Boheman, 1865)
–			1 ♀	<i>Exechia fusca</i> (Meigen, 1804)
–			1 ♂	<i>Exechiopsis (E.) indecisa</i> (Walker, 1856)
–			1 ♂	<i>Notolopha brachycera</i> (Zetterstedt, 1852)

Five of Zetterstedt's Exechiini types could be recognized beyond doubt, viz.: *Brevicornu canescens* (Zetterstedt, 1852) **sp. restit. stat. n.**, *Brevicornu griseolum* (Zetterstedt, 1852) sensu auctore nec Edwards [= *Brevicornu boreale* (Lundström, 1914) **syn. n.**], *Exechia lucidula* (Zetterstedt, 1838), *Exechia unimaculata* (Zetterstedt, 1860), and *Notolopha brachycera* (Zetterstedt, 1838) **sp. restit. stat. n.** [= *Allodiopsis (Notolopha) tuomikoskii* Zaitzev & Maximova, 2000 **syn. n.**] In order to preserve nomenclatural stability a **lecto-type** was selected for *Brevicornu griseolum*. The type specimen of *Allodia (Brachycampta) alternans* (Zetterstedt, 1838) had lost its abdomen and a **neotype** was selected according to prevailing usage in order to avoid further speculation about the name. The type of *Exechia parvula* (Zetterstedt, 1852) was reported as missing by Edwards (1924) and was neither found in the present study. The name, however, is still valid as a junior synonym for *Mycetophila nana* Staeger, 1840 since *Mycetophila nana* Staeger, 1840 is a junior primary homonym of *Mycetophila nana* Macquart, 1826. The type of *Cordyla canescens* Zetterstedt, 1852 was neither found in the collections, but the name was made a junior synonym of *Stigmatomeria crassicornis* (Stannius, 1831) by Edwards (1924). All type specimens of *Brevicornu fuscolum* (Zetterstedt, 1838) have lost their abdomens. Its identity is highly uncertain and the name must remain as a **nomen dubium**. The rest of Zetterstedt's types referable to Exechiini have been correctly synonymized by previous authors as indicated in the following species list.

List of species

Allodia (Allodia) lugens (Wiedemann, 1817)

Mycetophila lugens Wiedemann, 1817: 68

Mycetophila analis Meigen, 1818: 269

Specimen determined as *Mycetophila ornaticollis* Meigen, 1818 in Zetterstedt (1852: 4205).

Material. Male [SPM-004742, purple red tag, labelled: *M. ornaticollis* Meig ♂ — Lund] – Sweden: SK, Lund, undated.

Allodia (Allodia) ornaticollis (Meigen, 1818)

Mycetophila ornaticollis Meigen, 1818: 269

Mycetophila nigricollis Zetterstedt, 1852: 4207

Specimen determined as *Mycetophila ornaticollis* Meigen, 1818 in the "Exotic" collection.

Material. Male [SPM-004746, without coloured tag, labelled: *M. ornaticollis* Meig ♂? Neuenk.] – Germany: "Neuenkirchen prope Gryphiam" = near Greitswald, 15–20 May 1842, leg. Dahlbom.

Specimen determined as *Mycetophila nigricollis* Zetterstedt, 1852 in Zetterstedt (1852: 4207).

Material. Male [SPM-004743, with purple red tag, labelled: *M. nigricollis* Zett. ♂. Lund Scan.] – Sweden: SK, Lund, September – October 1838.

Specimen determined as *Mycetophila alternans* Zetterstedt, 1838 in Zetterstedt (1852: 4215).

Material. Male [SPM-004744, with light blue tag, labelled: *M. alternans* Zett. ♀. Espe.] – Sweden: SK, Kivik's Esperöd in Mellby parish, undated.

Specimen possibly determined as *Mycetophila fusca* Meigen, 1804 ♀ in the "Göteborg" collection.

Material. Male [SPM-004745, with light blue tag, unlabelled but standing below an orphan label reading: *M fusca* ♀ Meig.] – Sweden: SK, Kivik's Esperöd in Mellby parish, undated.

***Allodia (Allodia) septentrionalis* Hackman, 1971**

Allodia (Allodia) septentrionalis Hackman, 1971: 5

Specimen determined as *Mycetophila ornatcollis* Meigen, 1818 in the "Insecta Lapponica" collection.

Material. Male [SPM-004747, without coloured tag, labelled: *M. ornatcollis* v. a. ♂. Tärna] – Sweden: LY, Tärna, 1821.

***Allodia (Allodia) truncata* Edwards, 1921**

Allodia truncata Edwards, 1921: 123

Specimen determined as *Mycetophila nigricollis* Zetterstedt, 1852 in Zetterstedt (1852: 4218).

Material. Male [SPM-005130, with light green tag, labelled: Hofverberget, Jemtl. 14–15/8 40.] – Sweden: JÄ, Hofverberget, 14.–15. August 1840.

* ***Allodia (Allodia) tuomikoskii* Hackman, 1971**

Allodia (Allodia) tuomikoskii Hackman, 1971: 3

Specimen determined as *Mycetophila ornatcollis* Meigen, 1818 in the "Insecta Lapponica" collection.

Material. Male [SPM-005131, without coloured tag, labelled: *M. ornatcollis* 6.8. Tärna] – Sweden: LY, Tärna, 6 August 1821.

Undetermined specimen standing next to previous specimen.

Material. Male [SPM-005132, without coloured tag, labelled: ♂. Tärna] – Sweden: LY, Tärna, 1821.

* ***Allodia (Allodia) zaitzevi* Kurina, 1998**

Allodia (Allodia) zaitzevi Kurina, 1998: 275

Undetermined specimen standing next to specimens labelled "*Mycetophila ornatcollis* Meigen" in the "Insecta Lapponica" collection.

Material. Male [SPM-005133, without coloured tag, labelled: var d. ♂. Tärna] – Sweden: LY, Tärna, 1821.

Allodia (Allodia) spp.

Specimens determined as *Mycetophila ornaticollis* Meigen, 1818 var. a. in Zetterstedt (1852: 4205).

Material. Female [SPM-005134, without coloured tag, labelled: *M. ornaticollis* v. a. ♂ Nykyrk. XXX] – Sweden: ÖG, at Nykyrka, September 1851. Sex unknown [SPM-005135, with white tag on which "60" is written, labelled: Stæg] – Denmark?, undated, leg. Staeger. Sex unknown [SPM-005136, with white tag on which "65" is written, labelled: *M. ornaticollis* meig. ♂. Stæg.] – Denmark?, undated, leg. Staeger. Female [SPM-005137, with light yellow tag, labelled: *M. ornaticollis* Meig XXX. abusa.] – Sweden: SK, Abusa, undated. Female [SPM-005138, with light blue tag, unlabelled] – Sweden: SK, Kivik's Esperöd in Mellby parish, undated. Female [SPM-005139, with white tag on which "30" is written, labelled: Siebke.] – Norway?, undated, leg. Siebke. Female [SPM-005140, with light blue tag, unlabelled] – Sweden: SK, Kivik's Esperöd in Mellby parish, undated.

Specimen determined as *Mycetophila ornaticollis* Meigen, 1818, var. c. *M. lugens* Meig. in Zetterstedt (1852: 4205).

Material. Female [SPM-005141, with light green tag, labelled: var. c. ♀. *lugens* Meig. Suul norv.] – Norway: NTI, Sul, 1840.

Specimens determined as *Mycetophila ornaticollis* Meigen, 1818, var. d. in Zetterstedt (1852: 4205).

Material. Female [SPM-005142, with light green tag, labelled: var. d. ♀. åreskutan] – Sweden: JÄ, Åreskutan, 1840. Female [SPM-005143, with purple red tag, unlabelled] – Sweden: SK, Lund, undated.

Specimen determined as *Mycetophila ornaticollis* Meigen, 1818, var. d. in the "Insecta Lapponica" collection.

Material. Female [SPM-005144, without coloured tag, labelled: *M. ornaticollis* v. d. ♀ Tärna] – Sweden: LY, Tärna, 1821.

Specimens determined as *Mycetophila ornaticollis* Meigen, 1818, var. e. in Zetterstedt (1852: 4206).

Material. Female [SPM-005145, with light green tag, labelled: var. e. ♀. åreskutan] – Sweden: JÄ, Åreskutan, 1840. Female [SPM-005146, with light green tag, labelled: Mulfj.] – Sweden: JÄ, Mullfjället, 1840. Female [SPM-005147, with light blue tag, unlabelled] – Sweden: SK, Kivik's Esperöd in Mellby parish, undated.

Specimens determined as *Mycetophila ornaticollis* Meigen, 1818 in the "Göteborg" collection.

Material. Female [SPM-005148, with purple red tag, labelled: *Myc. ornaticollis* M. ♂ Stæger.] – Sweden: SK, Lund, undated. Female [SPM-005149, with light green tag, labelled: var d. ♀. åreskut.] – Sweden: JÄ, Åreskutan, 1840. Female [SPM-005256, with light blue tag, otherwise unlabelled] – Sweden: SK, Kivik's Esperöd in Mellby parish, undated.

Specimen determined as *Mycetophila analis* Meigen, 1818 in Zetterstedt (1852: 4207).

Material. Female [SPM-005150, with white tag on which "61" is written, labelled: *M. analis* (Meig.) ♀. Stæg] – Denmark?, undated, leg. Staeger.

Specimen determined as *Mycetophila nigricollis* Zetterstedt, 1852 in Zetterstedt (1852: 4218).

Material. Sex unknown, lacking abdomen [SPM-005151, with purple red tag, labelled: *M. nigricollis* Zett. ♀. Lund Scan.] – Sweden: SK, Lund, undated.

Undetermined specimens in the "Insecta Lapponica" collection.

Material. Sex unknown, lacking abdomen [SPM-005152, without coloured tag, unlabelled] – Unknown locality, undated.

Allodia (Brachycampta) alternans (Zetterstedt, 1838)

Mycetophila alternans Zetterstedt, 1838: 866

Brachycampta alternans; Lundström 1909: 24, figs 26 & 27

nec *Brachycampta alternans*; Coquillett 1910: 515

nec *Brachycampta alternans*; Dziedzicki 1915: 11, figs 129 & 130

Allodia alternans; Edwards 1921: 123, fig. 9

nec *Mycetophila alternans*; Edwards 1924: 163

Allodia alternans; Edwards 1925: 608

? *Allodia delicata* Ostroverkhova, 1977: 78, fig. 5

Material. Holotype, sex unknown, lacking abdomen, on the same pin as a male *Exechia spinuligera* Lundström, 1912 [SPM-005153, mounted on slide, without coloured tag, labelled: *M. alternans* Zett ♂. (*M. fusca* ♀) Karungi] – Sweden: NB, Karungi, 28. August 1821. **Neotype** (Fig. 3). Male [SPM-005726, mounted on slide, MZLU] – Sweden: LU, Jokkmokk, Kaltisjokk at Messaure, barber traps 101–120, 02. September - 04. October 1971, leg. K. Müller.

The first specimen above is the type of *Mycetophila alternans* Zetterstedt, 1838 as can be decided by its co-occurrence with an *Exechia spinuligera* Lundström 1912 on the same pin as well as the label giving the name and type locality "Karungi". Both these facts are mentioned in the description given in Zetterstedt (1838: 866). Unfortunately the abdomen of the type specimen is lost and without reference to the genitalia the true identity of the type cannot be established beyond subgenus level. *Allodia (Brachycampta) alternans* apparently has been mixed with *A. (B.) grata* (Meigen, 1830) by several authors (e.g. Coquillett 1910; Dziedzicki 1915). Edwards (1921) illustrated *A. (B.) alternans* in accordance with Lundström's (1909) interpretation, and this has later become the prevailing usage of the name by subsequent authors (e.g. Edwards 1925, Zaitzev 1984, 2003). Nevertheless, as Edwards (1924) did not examine the "Insecta Lapponica" collection he reported the type as missing and referred to a male labelled "Bjorn" as being in co-ordinance with his interpretation of *Allodia alternans*. The specimen labelled "Björn", however, belongs to *Allodia (Brachycampta) grata* (Meigen, 1830) [see below] as figured by Dziedzicki (1915) under the name *A. (B.) alternans*. It remains an open question whether Zetterstedt's type in fact is

the same as Lundström's interpretation of *A. (B.) alternans*. Apart from the type no other specimens of *A. (B.) alternans* as treated by Lundström (1909) and others were found in the Zetterstedt collections. On the contrary, the second male determined as *Mycetophila alternans* Zetterstedt, 1838 in Zetterstedt (1852: 4215) is in fact referable to *Allodia (Brachycampta) grata*. To avoid further speculation and preserve nomenclatural stability it thus seems appropriate to select and illustrate a neotype for *A. (B.) alternans* in accordance with Lundström's drawing (Lundström 1909: plate III, figs 26–27) and prevailing usage of the name.

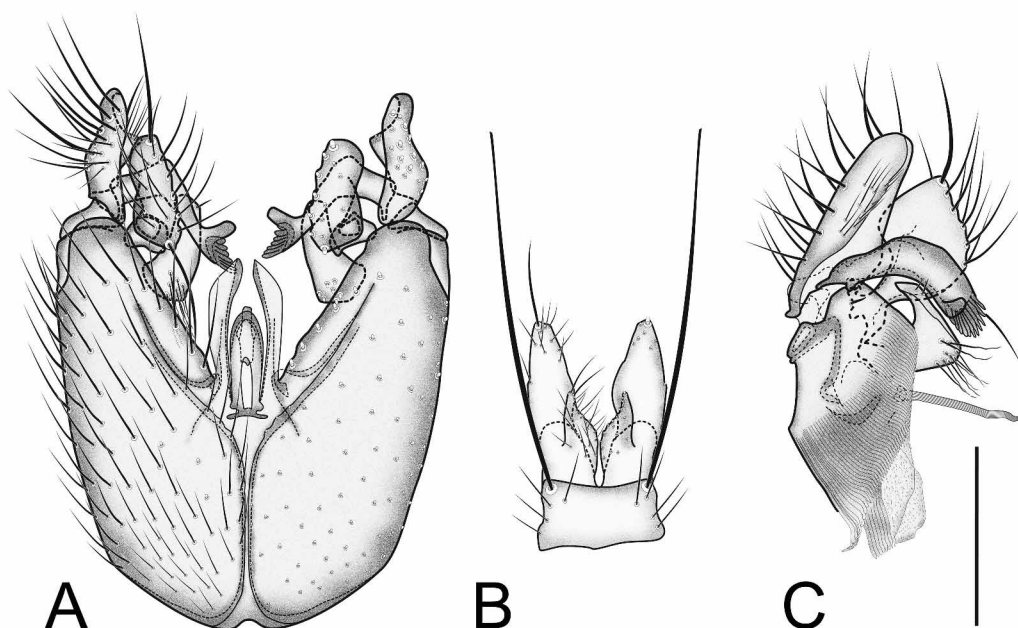


FIGURE 3. Male neotype of *Allodia (Brachycampta) alternans* (Zetterstedt, 1838) – **A.** Terminalia in ventral view. – **B.** Tergite IX and cerci in dorsal view. – **C.** Internal face of right gonostylus. Bar = 0.2 mm.

***Allodia (Brachycampta) grata* (Meigen, 1830)**

Mycetophila grata Meigen, 1830: 303

Brachycampta alternans; Coquillett 1910: 515

Brachycampta alternans; Dziedzicki 1915: 11, figs 129 & 130

Allodia nigricollis [sic]; Edwards 1921: 124, fig. 10

Mycetophila alternans; Edwards 1924: 163

Allodia grata; Edwards 1925: 608

Specimens determined as *Mycetophila alternans* Zetterstedt, 1838 in Zetterstedt (1852: 4215)

Material. Male [SPM-005154, with purple red + light yellow tag, labelled: *M. alternans* Zett. ♂. Scan. Björn st. Dahlb.] – Sweden: SK, Malmöhus län, Björnstorp Säteri, 24. September 1838, leg. Dahlbom.

Allodia (Brachycampta) sp(p).

Specimens determined as *Mycetophila alternans* Zetterstedt, 1838 in Zetterstedt (1852: 4215).

Material. Female [SPM-005156, light blue tag, labelled: *M. alternans* Zett. ♀. Esper.] – Sweden: SK, Kivik's Esperöd in Mellby parish, undated. Sex unknown, lacking abdomen [SPM-005155, with light green tag, labelled: *M. alternans* sp var. Tärna] – Sweden: LY, Tärna, 1840.

*** *Allodiopsis rustica* (Edwards, 1941)**

Rhymosia rustica Edwards, 1941; 75, fig. 7a–c

Specimen determined as *Mycetophila discicollis* Staeger, 1840 in Zetterstedt (1852: 4226).

Material. Male [SPM-005157, with lilac tag, labelled: *M. discicollis* Zett. ♂. Öland 52 Holmgren] – Sweden: ÖL, Öland, 1852, leg. Holmgren.

Allodiopsis s. lat. spp.

Specimens determined as *Mycetophila maculosa* Meigen, 1818 in the "Diptera Scandinaviae" collection.

Material. Sex unknown, lacking abdomen [SPM-005247, with light blue tag, labelled: *M. maculosa* Meig. ♂. Esperöd.] – Sweden: SK, Kivik's Esperöd in Mellby parish, undated. Sex unknown, lacking abdomen [SPM-005248, with light blue tag, labelled: *M. maculosa* Meig. ♂. Esperöd.] – Sweden: SK, Kivik's Esperöd in Mellby parish, undated.

These two specimens are both in poor condition and lack sufficient characters for safe generic determination. They both belong to the compound genus *Allodiopsis* Tuomikoski, 1966 as defined by Tuomikoski (1966) where all four subgenera later have been raised to generic level (Matile 1987, Söli et al. 2000). They are both devoid of scutal bristles. Their wing venations are slightly different, indicating two species. The first is most likely a *Synplasta* Skuse, 1890 while the latter has three proepisternal setae and most likely refers to an *Allodiopsis* s. str. Neither is likely to be associated with *Myriosa maculosa* (Meigen, 1818) nor with *Notolopha* Tuomikoski, 1966.

***Anatella simpatica* Dziedzicki, 1923**

Anatella simpatica Dziedzicki, 1923: 7

Undetermined specimen in the "Göteborg" collection.

Material. Male [SPM-005158, unlabelled, placed together with specimens determined as *M. fusca*] – Sweden: SK, Lund, undated.

*** *Brevicornu canescens* (Zetterstedt, 1852) sp. restit. stat. n.**

Mycetophila canescens Zetterstedt, 1852: 4365

Brachycampta griseicollis; Lundström 1909: 25, figs 32 & 33

Allodia canescens; Edwards 1924: 163

Allodia griseola; Edwards 1925: 608

Allodia karpathica Landrock, 1928: 240

Brevicornu griseolum; Zaitzev 1986: 171, fig. 53(1)

Brevicornu griseolum; Zaitzev 2003: 132, figs 16(7–8)

Material. Holotype (Fig. 4) male [SPM-005159, without coloured tag, labelled: *M. canescens* Z ♂ Nykyrk. XXX] – Sweden: ÖG, at Nykyrka, September 1851.

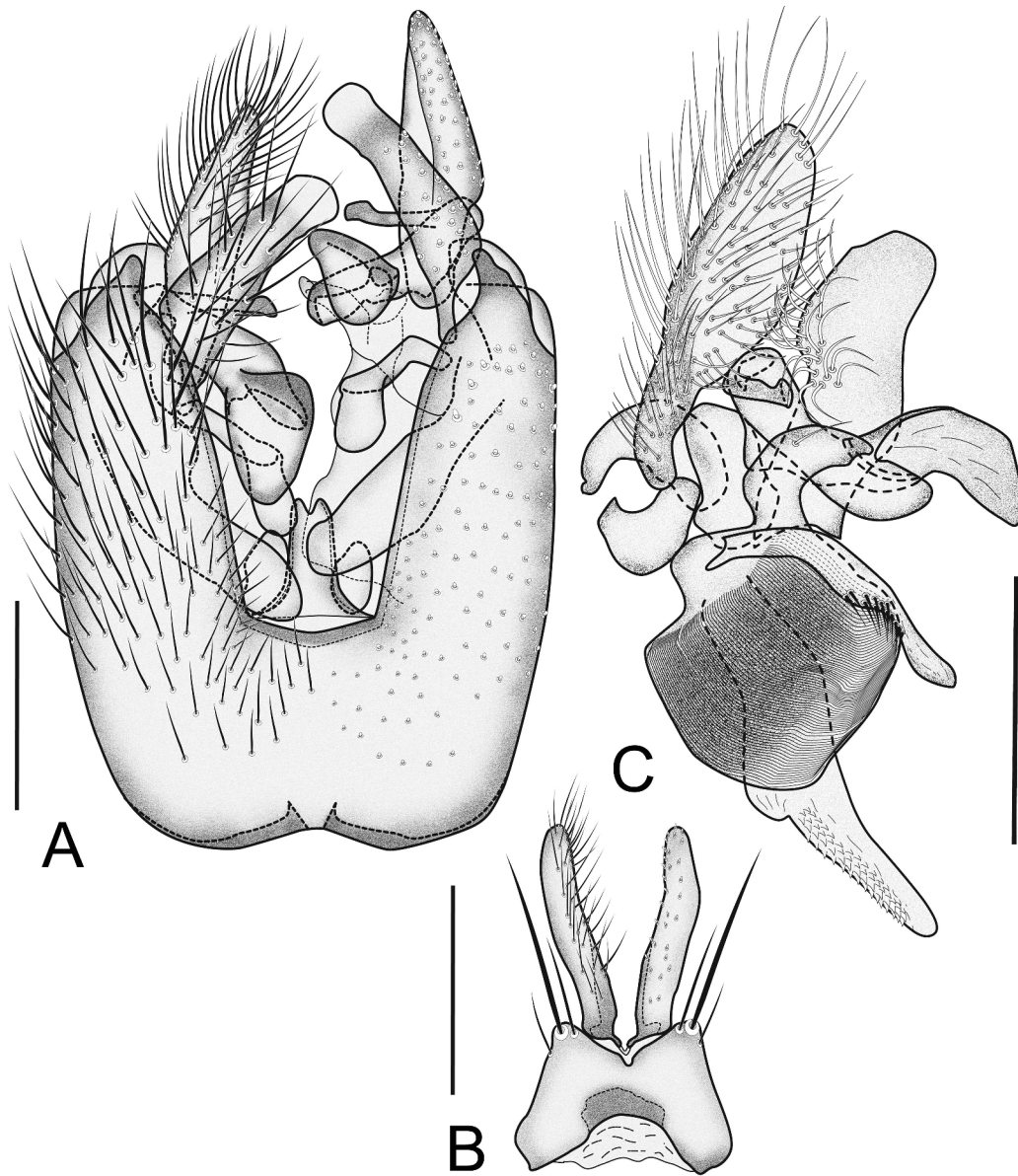


FIGURE 4. Male holotype of *Brevicornu canescens* (Zetterstedt, 1852) sp. restit. stat. n. – **A.** Terminalia in ventral view. – **B.** Tergite IX and cerci in dorsal view. – **C.** Internal face of right gonostylus, enlarged. Bars = 0.2 mm.

There is only one specimen in the collections referable to this name. Edwards (1924) treated it as a good species, larger but close to *Brevicornu griseicolle* (Staeger, 1840).

After Edwards (1924) *B. canescens* has been totally overlooked due to a mixing with *B. griseolum* (Zetterstedt, 1852) [see below]. It is a large distinct species of *Brevicornu* Marshall, 1896 where the Cu-fork is positioned slightly beyond the M-fork. Hence, the species is reinstated with its original name and illustrated here as the first correct record from Sweden after the original description.

***Brevicornu griseicolle* (Staeger, 1840)**

Mycetophila griseicolle Staeger, 1840: 258

nec *Brachycampta griseicollis*; Lundström 1909: 25, figs 32 & 33

Specimen determined as *Mycetophila ornaticollis* Meigen, 1818 in Zetterstedt (1852: 4205).

Material. Male [SPM-005162, with light green tag, labelled: var c. ♂. alstahaug. *lugens* Meig.] – Norway: NSY, Alstahaug, 1840.

***Brevicornu griseolum* (Zetterstedt, 1852) sensu auct.**

Mycetophila griseola Zetterstedt, 1852: 4225

Brachycampta borealis Lundström, 1914: 17, figs 14 & 15 **syn. n.**

Mycetophila griseola; Edwards 1924: 164

nec *Allodia griseola*; Edwards 1924: 168

nec *Allodia griseola*; Edwards 1925: 608

nec *Allodia karpathica* Landrock, 1928: 240

nec *Brevicornu griseolum*; Zaitzev 1986: 171, fig. 53(1)

nec *Brevicornu griseolum*; Zaitzev 2003: 132, figs 16(7–8)

Material. Lectotype (Fig. 5A–D) male [SPM-005160, mounted on slide] plus paralectotype female (Fig. 5E) [SPM-005161, mounted on slide] on same pin [with light green tag, labelled: *M. griseola* Zett. ♂ ♀. 16 Jul. Skilstug] – Sweden: JÄ, Skilstugan, 16. July 1840. Paralectotype male [SPM-005254] plus paralectotype female [SPM-005255] on same pin [with light green tag, labelled: Sp. XXX. ♂♀. Skilstugan, and on a second label: Skilst. 16 jul.] – Sweden: JÄ, Skilstugan, 16. July 1840.

Additional material studied. Syntype of *B. borealis* [MZHF-1032, pinned, with cleared abdomen in glycerine vial], original labels: printed label “Ponoj”; printed label “R. Frey”; small quadratic pink label with number “5009”; handwritten label in blue ink “10.2”; pale green label “Mus. Zool. H:fors Spec. typ. No 4317. *Brachycampta borealis* Lun.” [Mus. Zool Helsinki Loan Nr. D04-1268] – Finland: Lp, Pinoj, Gavrilovo, 15. – 16. July 1913, leg. R. Frey.

As noted by Zetterstedt (1852, 4225) the male and female of the couples were taken in copula, and thus the females should be safely associated with the male. Edwards (1924) misinterpreted this species as *Allodia griseicollis* (Meig.) sensu Lundström (1909) nec Staeger (1840), and suggested to use Zetterstedt's name for it. While the intention presumably was to avoid mixing with *B. griseicolle* (Staeger, 1940) this rather led to a mixing of *B. griseolum* with *B. canescens* where the first name has later been widely used for the latter species. Further, this species is a senior synonym of *Brevicornu boreale* (Lundström,

1914) [type specimen has been studied, compared with the lectotype of *B. griseolum* and found to be conspecific].

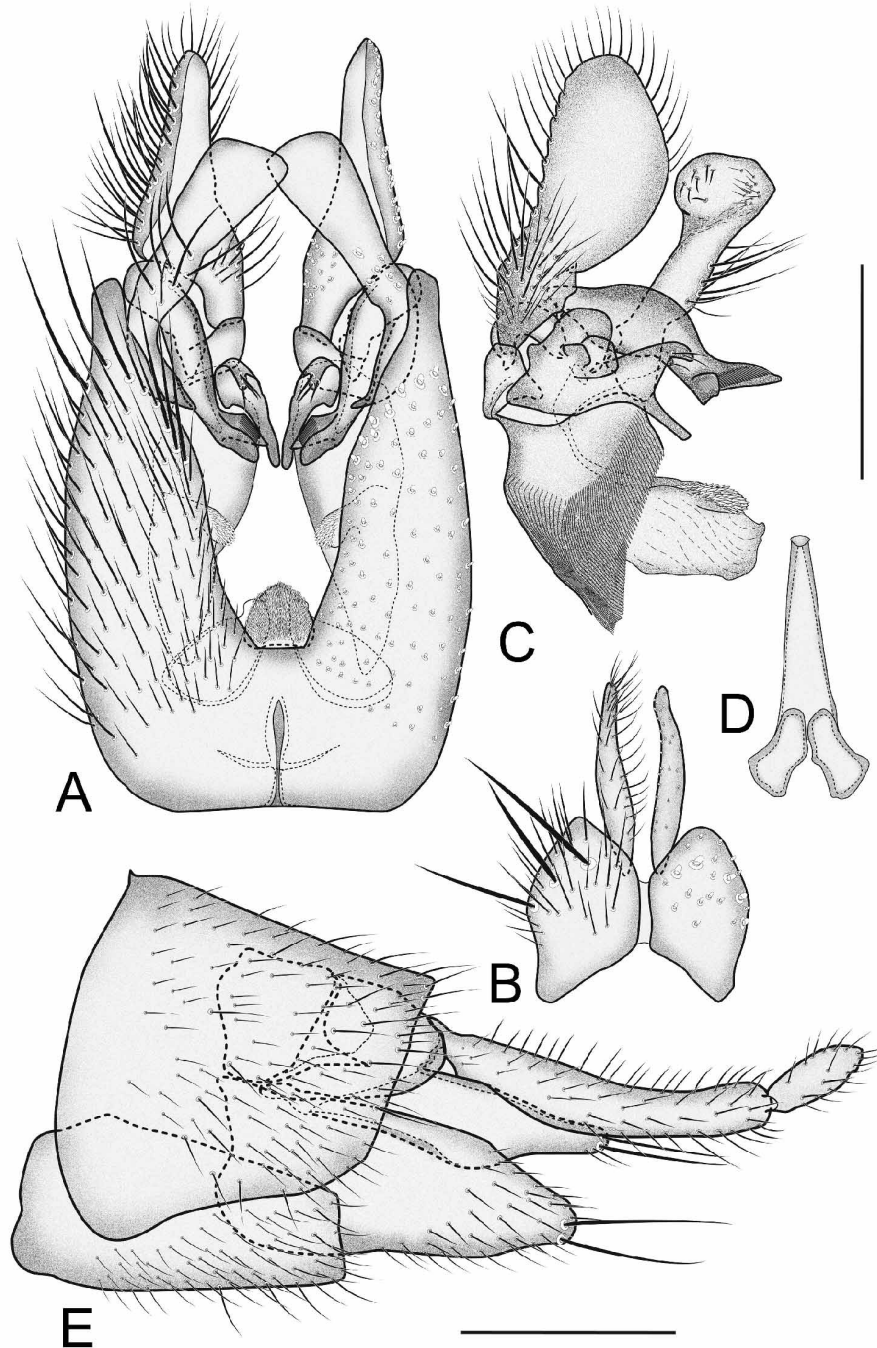


FIGURE 5. Male lectotype and female paralectotype of *Brevicornu griseolum* (Zetterstedt, 1852) sensu auct. – **A.** Terminalia in ventral view. – **B.** Tergite IX and cerci in dorsal view. – **C.** Internal face of right gonostylus. – **D.** Aedeagus in ventral view. – **E.** Female terminalia in lateral view. Bars = 0.2 mm.

Brevicornu fuscipenne* (Staeger, 1840)Mycetophila fuscipennis* Staeger, 1840: 259? *Mycetophila bicolour* Macquart, 1834

Specimen determined as *Mycetophila bicolour* Macquart, 1834 in Zetterstedt (1852, 4216).

Material. Male [SPM-005163] plus female [SPM-005164] on same pin [with light blue tag, labelled: *M. bicolour* Macqu. ♂♀. Esperöd Scan.] – Sweden: SK, Kivik's Esperöd in Mellby parish, undated.

As noted by Zetterstedt (1852) the male and female were taken in copula, and thus the females should be safely associated with the male. *Mycetophila bicolour* Macquart, 1834 is treated as a *nomen dubium*, possibly a *Brevicornu* sp. in Hackman et al. (1988).

*** *Brevicornu nigrofuscum* (Lundström, 1909)***Brachycampta nigrofusca* Lundström, 1909: 27, figs 40 & 41

Specimen determined as a possible *Mycetophila griseola* Zetterstedt, 1852 in the "Diptera Scandinaviae" collection.

Material. Male [SPM-005165, mounted on slide, without coloured tag, labelled: *M. griseola*? ♂ Tärna. [and on a separate label] *Pach. cinereus*? ♂. Tärna] – Sweden: LY, Tärna, 1821.

Brevicornu sericoma* (Meigen, 1830)Brevicornu sericoma* Meigen, 1830: 302

Specimen determined as *Mycetophila bicolour* Meigen, 1830 in the "Exotic" collection.

Material. Male [SPM-005257, without coloured tag, labelled: *M. bicolour* Meig. ♂? Neuenkirch. 20 mai] – Germany: "Neuenkirchen prope Gryphiam" = near Greitswald, 15–20 May 1842, leg. Dahlbom.

***Brevicornu* sp.**

Specimens described as *Mycetophila fusculum* Zetterstedt, 1838. As all type specimens of *Brevicornu fusculum* (Zetterstedt, 1838) had lost their abdomens by the time Edwards (1924) studied the collections and the name has not been used since the original description it must still be treated as a **nomen dubium**.

Material. Three specimens, all without abdomen on one pin (+ a female *Sceptonia*) [SPM-005166, without coloured tag, labelled: *M. fuscula* Zett ♂♀. (*M. nigra*) Juckasjärvi.] – Sweden: TO, Juckasjärvi, 24 June 1821.

Specimen determined as *Mycetophila discoidea* Meigen, 1818 in the "Göteborg" collection.

Material. Sex probably female but lacking abdomen [SPM-005167, gold coloured tag, otherwise unlabelled: but standing next to a empty pin labelled: *M. discoidea* Meig ♀?] – Sweden: ÖG, Gusum, undated.

Specimens determined as *Mycetophila alternans* Zetterstedt, 1838 in Zetterstedt (1852: 4215).

Material. Female [SPM-005168, without coloured tag, labelled: *M. alternans* var. ♀ Tärna] – Sweden: LY, Tärna, 1821. Female [SPM-005169, without coloured tag, labelled: *M. alternans* var. ♀ Tärna] – Sweden: LY, Tärna, 1821.

Specimens determined as *Mycetophila bicolour* Macquart, 1834 in Zetterstedt (1852: 4216).

Material. Probably male plus female on same pin, but both lacking antenna and abdomen [SPM-005170, with light blue tag, labelled: *M. bicolour* Macqu. ♂♀. Esperöd Scan.] – Sweden: SK, Kivik's Esperöd in Mellby parish, undated.

Specimen determined as *Mycetophila bicolour* Macquart, 1834 **var. b.** in Zetterstedt (1852: 4217).

Material. Female, lacking tip of genitalia [SPM-005171, without coloured tag, labelled: Neuenkirchen Db.] – Germany: "Neuenkirchen prope Gryphiam" = near Greitswald, 15–20 May 1842, leg. Dahlbom.

Specimen determined as *Mycetophila bicolour* Macquart, 1834 **var. b.** in the "Exotic" collection.

Material. Female [SPM-005172, without coloured tag, labelled: *M. bicolour* ♀ var. b. Zett. Neuenkirchen] – Germany: "Neuenkirchen prope Gryphiam" = near Greitswald, 15–20 May 1842, leg. Dahlbom.

Specimen determined as *Pachypalpus cinereus* Zetterstedt, 1852 in the "Insecta Lapponica" collection.

Material. Female [SPM-005173, without coloured tag, labelled: *Pachyp. cinereus* ♀. Tärna] – Sweden: LY, Tärna, 1821.

***Cordyla crassicornis* Meigen, 1818**

Cordyla crassicornis Meigen, 1818: 303

Pachypalpus cinereus Zetterstedt, 1852: 4254

Material. Male [SPM-005174, without coloured tag, labelled: *Pachypalpus cinereus* Ostrogotlandia, [and on a second label] Winnestad. 9 Sept. Ocellernas läge ?] – Sweden: ÖG, Charlottenborg, 9. September 1872. Female [SPM-005175, with red and lilac tag, labelled: *P. cinereus* Zett. ♀. Gottl. westö] – Sweden: GO, Gotland, Westö, undated.

***Cordyla cf. murina* Winnertz, 1863**

Cordyla murina Winnertz, 1863: 954

Specimen determined as *Pachypalpus cinereus* Zetterstedt, 1852 in Zetterstedt (1852: 4254)

Material. Female on same pin as a male *Mycetophila* sp. [SPM-005176, abdomen mounted on slide, without coloured tag, labelled: *Myc. arculata* ♂. et *Pach cinereus* Z. ♀. Wittangi.] – Sweden: TO, Vittangi, 14. June 1821.

Two species are hidden under this name (*O. Kurina pers. comm.*), so although the female genitalia conform well to this species certain identification cannot be undertaken at present. A revision of the genus is in preparation by O. Kurina (Kurina 2001).

***Cordyla* sp.**

Specimen determined as *Pachypalpus cinereus* Zetterstedt, 1852 in the "Insecta Lapponica" collection.

Material. Sex unknown, lacking abdomen [SPM-005177, with light green tag, labelled: *P. cinereus* Zett. ♀. Mullfjället] – Sweden: JÄ, Mullfjället, 1840.

***Exechia bicincta* (Staeger, 1840)**

Mycetophila bicincta Staeger, 1840: 263

Mycetophila interrupta Zetterstedt, 1852: 4240

Material. Male [SPM-005178, purple red tag, labelled: *M. interrupta* Zett. ♂. Lund. 5 oct.] – Sweden: SK, Lund, 5. October 1838.

***Exechia contaminata* Winnertz, 1863**

Exechia contaminata Winnertz, 1863: 891

Specimen determined as *Mycetophila dorsalis* Staeger, 1840 **var. a.** in Zetterstedt (1852: 4238).

Material. Female [SPM-005179, white tag on which "29" is written, labelled: Siebke and ♀ on separate labels] – Norway: AK, Tøyen in Oslo, 5. May 1850. Female [SPM-005180, with light green tag, labelled: *M. dorsalis* Stæg. Mullfjället] – Sweden: JÄ, Mullfjället, undated.

Specimen determined as *Mycetophila guttiventris* Meigen, 1830 in the "Göteborg" collection.

Material. Female [SPM-005181, without coloured tag, labelled: H:fors] – Finland: N, Helsinki, undated.

***Exechia dizona* Edwards, 1924**

Exechia dizona Edwards, 1924, 166

Specimen determined as *Mycetophila bicincta* Staeger, 1840 in Zetterstedt (1852: 4239).

Material. Male [SPM-005182, purple red tag, labelled: *M. bicincta* Stæg. ♂? Lund.] – Sweden: SK, Lund, 4. October 1838.

***Exechia frigida* (Boheman, 1865)**

Mycetophila frigida Boheman, 1865: 576

Specimen determined as *Mycetophila fusca* Meigen, 1804 in Zetterstedt (1852: 4236).

Material. Male [SPM-005183, with light green tag, labelled: Suul] – Norway: NTI, Sul, 1840. Female [SPM-005184, with light green tag, labelled: Skalst.] – Sweden: JÄ, Skalstugan, 16. July 1840.

Specimen determined as *Mycetophila fusca* Meigen, 1804 in the "Insecta Lapponica" collection.

Material. Female [SPM-005185, without coloured tag, labelled: *M. fusca* ♀ Tärna] – Sweden: LY, Tärna, ?1832.

Undetermined specimens in the "Insecta Lapponica" collection.

Material. Female [SPM-005186, with light green tag, labelled: Mulf. 24 jun.] – Sweden: JÄ, Mullfjället, 24 June 1840. Female [SPM-005187, with white tag on which "4" is written, labelled: ♀ Kattisavan] – Sweden: VB, Kattisavan, undated.

***Exechia fusca* (Meigen, 1804)**

Mycetophila fusca Meigen, 1804: 91

Mycetophila lateralis Meigen, 1818: 266

Mycetophila guttiventris Meigen, 1830: 301

Specimens determined as *Mycetophila fusca* Meigen, 1804 in Zetterstedt (1852: 4235).

Material. Male [SPM-005188, with purple red tag, labelled: *M. fusca* Meig. ♂. Lund Scan] – Sweden: SK, Lund, undated. Male [SPM-005189, with light green tag, labelled: Mullfjäll. Jemtl. 24–30/7 40] – Sweden: JÄ, Mullfjället, 24–30 July 1840. Male [SPM-005190, with purple red tag, labelled: *M. fusca* Meig. ♀. Lund Scan] – Sweden: SK, Lund, undated.

Specimens determined as *Mycetophila tarsata* Staeger, 1840 in Zetterstedt (1852: 4243).

Mycetophila tarsata Staeger, 1840 is treated as a doubtful synonym of *Phronia bicolor* Dziedzicki, 1889 in Hackman et al. (1988).

Material. Male [SPM-005191, without coloured tag, labelled: Winnerstad sn tagen i Charlottenborgs äng den 9 september – Oceller saknas? 72] – Sweden: ÖG, Charlottenborg, 9. September 1872.

Specimens determined as *Mycetophila guttiventris* Meigen, 1830 in Zetterstedt (1852, 4231).

Material. Male [SPM-005192, with purple red tag, labelled: *Mycetophila guttiventris* Lund nov. 55 [and on a second label) in tenessna Lund 24 nov. 55.] – Sweden: SK, Lund, 24. November 1855. Male [SPM-005193, with white tag on which "58" is written, labelled: *M. guttiventris* Stæg ♂. Dan a Stæg.] – Denmark, undated, leg. Staeger. Female [SPM-005194, with lilac tag, labelled: Öland 52 Holmgr.] – Sweden: ÖL, Öland, 1852, leg. Holmgren. Female [SPM-005195, with white tag on which "59" is written, labelled: *M. guttiventris* Stæg ♀. Dan a Stæg.] – Denmark, undated, leg. Staeger. Female [SPM-005196, purple red tag, otherwise unlabelled] – Sweden: SK, Lund, undated. Female [SPM-005197, without coloured tag, labelled: Omberg den 28 Aug. 13] – Sweden: ÖG, Omberg, 28 August 1813. Male [SPM-005252, without coloured tag, labelled: *M. guttiventris* Meig. ♂. Stæg, and on a separate label: XXX 5. sept.] – Denmark, 5 September, year unknown, leg. Staeger. Female [SPM-005199, without coloured tag, labelled: *M. guttiventris* v. a. ♀. Nykyrk.] Sweden: ÖG, at Nykyrka, September 1844, leg. Dahlbom. Female [SPM-005198, without coloured tag, labelled: *var. b.* ♂. Zett. *lateralis* Meig. Lund.] – Sweden: SK, Lund, undated.

Specimens determined as *Mycetophila guttiventris* Meigen, 1830 in the "Göteborg" collection.

Material. Female [SPM-005201, without coloured tag, labelled: *M. guttiventris* ♀

Meig. Stæg.] – Denmark?, undated, leg. Staeger.

Specimens determined as *Mycetophila guttiventris* Meigen, 1830 in the "Insecta Lapponica" collection.

Material. Female [SPM-005202, without coloured tag, labelled: *M. guttiventris* Meig. ♀. *lateralis* ins. Lapp. Kengis] – Sweden: NB, Kengis, 1821.

Specimen determined as *Mycetophila guttiventris* Meigen, 1830 in the "Exotic" collection.

Material. Female [SPM-005203, without coloured tag, labelled: *M. guttiventris* ♀. Neuenkirchen 44] – Germany: "Neuenkirchen prope Gryphiam" = near Greitswald, 15–20 May 1842, leg. Dahlbom.

Undetermined specimen in the "Göteborg" collection.

Material. Female [SPM-005204, without coloured tag, unlabelled, but standing next to an orphan label: Sp. gr. Stæger.] – Demark?, undated, leg. Staeger.

***Exechia lucidula* (Zetterstedt, 1838)**

Mycetophila lucidula Zetterstedt, 1838: 865

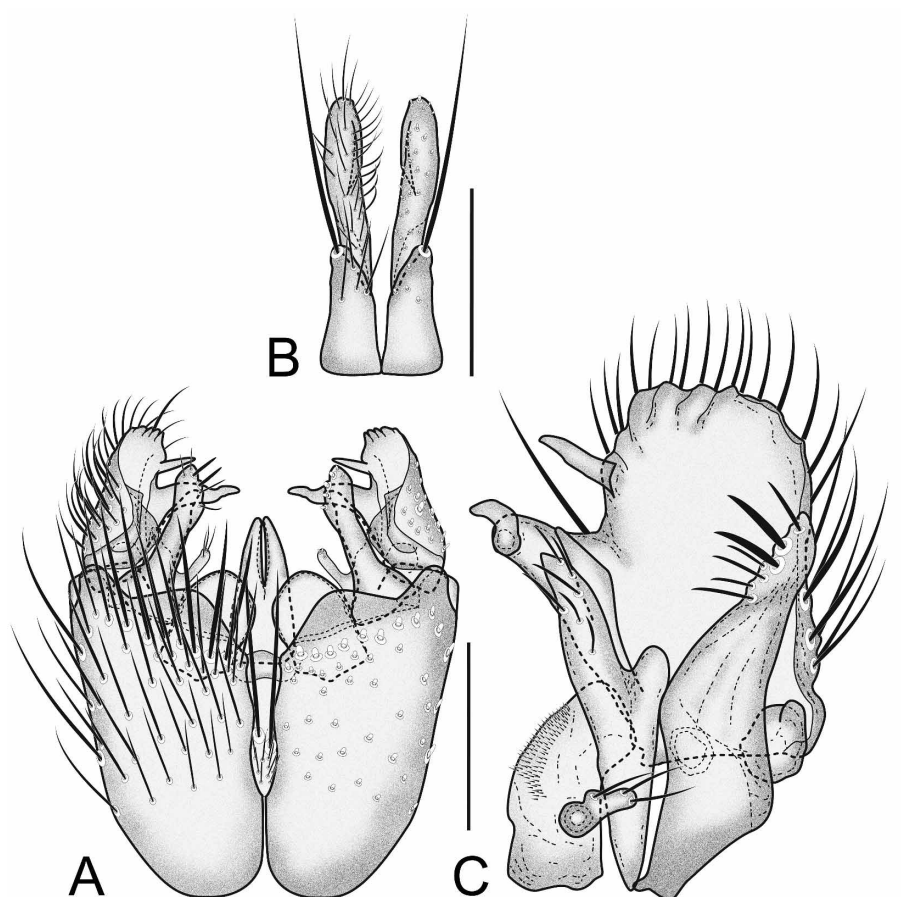


FIGURE 6. Male holotype of *Exechia lucidula* (Zetterstedt, 1838) – **A.** Terminalia in ventral view. – **B.** Tergite IX and cerci in dorsal view. – **C.** Internal face of right gonostylus, enlarged. Bars = 0.2 mm.

Material. Holotype (Fig. 6) male [SPM-005205, without coloured tag, labelled: *M. lucidula* Zett. ♂? Wittangi] – Sweden: TO, Vittangi, 14. June 1821. Male [SPM-005206, with purple red tag, labelled: *M. lucidula* Zett. ♀ Lund Scan.] – Sweden: SK, Lund, Scania, 20. May 1848.

***Exechia pseudocincta* Strobl, 1910**

Exechia pseudocincta Strobl, 1910: 255

Specimen determined as *Mycetophila dorsalis* Staeger, 1840 in Zetterstedt (1852, 4238).

Material. Male [SPM-005207, with lilac + red tag, labelled: *M. dorsalis* Stæg. ♂ Westö. Gottlandiæ.] – Sweden: GO, Gotland, Westö, undated.

***Exechia separata* Lundström, 1912**

Exechia separata Lundström, 1912: 34

Specimen determined as *Mycetophila fusca* Meigen, 1804 in the "Insecta Lapponica" collection.

Material. Male [SPM-005208, without coloured tag, labelled: *M. fusca* Meig. ♀. Pello.] – Sweden: NB, Pello, 1821.

Specimens determined as *Mycetophila "fusca et lateralis" ♀♀* " in the "Insecta Lapponica" collection.

Material. Male [SPM-005209] and female [SPM-005210] on same pin as a female *Sceptonia* [without coloured tag, labelled: *M. nigra (fusca et lateralis ♀♀)* Karungi] – Sweden: NB, Karungi, 1821?

***Exechia seriata* (Meigen, 1830)**

Mycetophila seriata Meigen, 1830: 302

Mycetophila ochracea Zetterstedt, 1852: 4242

Specimens determined as *Mycetophila ochracea* Zetterstedt, 1852 in Zetterstedt (1852, 4242).

Female [SPM-005211, with lilac and red tag, labelled: *M. ochracea* Zett. ♀. Kinare gottl. [and on a separate label] Kinare in Lumel 2 aug.] – Sweden: GO, Kinnare at Lummelunda, 2 August 1841, leg. Dahlbom. Female [SPM-005212, with light blue tag, otherwise unlabelled] – Sweden: SK, Kivik's Esperöd in Mellby parish, 22 July 1818. Female [SPM-005213, with white tag on which "19" is written, labelled: Trondhjem Siebeke] – Norway: STI, Trondheim, August 1844, leg. Siebke.

Specimens determined as *Mycetophila dorsalis* Staeger, 1840 in Zetterstedt (1852, 4238).

Material. Female [SPM-005214, without coloured tag, labelled: *M. dorsalis?* ♀ Ng Tøyen] – Norway: AK, Tøyen in Oslo, undated. Male [SPM-005215, without coloured tag, labelled: Bornholm 23 Juli *M. dorsalis?* 79] – Denmark: B, Bornholm, 23. July 1879.

Exechia spinuligera* Lundström, 1912Exechia spinuligera* Lundström, 1912, 33

Specimens determined as *Mycetophila fusca* Meigen, 1804 in the "Insecta Lapponica" collection.

Material. Male on same pin as type of *Allodia (Brachycampta) alternans* [SPM-005932, mounted on slide, without coloured tag, labelled: *M. alternans* Zett ♂. (*M. fusca* ♀) Karungi] – Sweden: NB, Karungi, 28. August 1821. Male [SPM-005216] and female [SPM-005217] on same pin [without coloured tag, labelled: *M. fusca* ♂♀. Lyks.] – Sweden: LY, Lycksele, 1832. Male [SPM-005218, without coloured tag, labelled: *M. fusca* Meig. ♂. Wittangi] – Sweden: TO, Vittangi, 27. May - 28. August 1821.

Specimen determined as *Mycetophila fusca* Meigen, 1804 in Zetterstedt (1852: 4236).

Male [SPM-005219, with light green tag, labelled: *M. fusca* Meig. [and on a separate printed label] Alstahaug, Levanger. Norveg. 8/7 40] – Norway: NSY, Alstahaug, 8. July 1840.

Exechia unimaculata* (Zetterstedt, 1860)Mycetophila unimaculata* Zetterstedt, 1860: 6565*Exechia unimaculata*; Lundström 1909: 44, figs 123, 124 & 125*Exechia unimaculata*; Lundström 1913: 313, figs 15 & 18

Material. Holotype (Fig. 7) female [SPM-005220, without coloured tag, labelled: *M. unimaculata* Zett. n./p. ♀ Tärna.] – Sweden: LY, Tärna, July 1856, leg. Holmgren.

This species is together with *Exechia macula* Chandler, 2001 the only Palaearctic species of *Exechia* Winnertz, 1863 with a central dark spot on the wings. Hence, although the holotype is a female the association to the male as first undertaken by Lundström (1913) seems unproblematic. The female of *Exechia macula* differs in the shape of the genitalia as illustrated by Lundström (1911).

***Exechia* sp.**

Specimen determined as *Mycetophila guttiventris* Meigen, 1830 in the "Göteborg" collection.

Material. Sex unknown, lacking abdomen [SPM-005221, Purple red tag, labelled: *M. guttiventris*. ♀ XXX.] – Sweden: SK, Lund, undated.

Specimens determined as *Mycetophila fusca* Meigen, 1804 in the "Göteborg" collection.

Material. Sex unknown, lacking abdomen [SPM-005222, light blue tag, labelled: *M. fusca* ♂ Meig.] – Sweden: SK, Kivik's Esperöd in Mellby parish, undated. Sex unknown, lacking abdomen [SPM-005223, light green tag, labelled: Mulfj. 24 Jun] – Sweden: JÄ, Mullfjället, 24. June 1840.

Undetermined specimen in the "Insecta Lapponica" collection.

Material. Sex unknown, lacking abdomen [SPM-005224, with light green tag, labelled: Mulfj 30 Jul.] – Sweden: JÄ, Mullfjället, 30. July 1840.

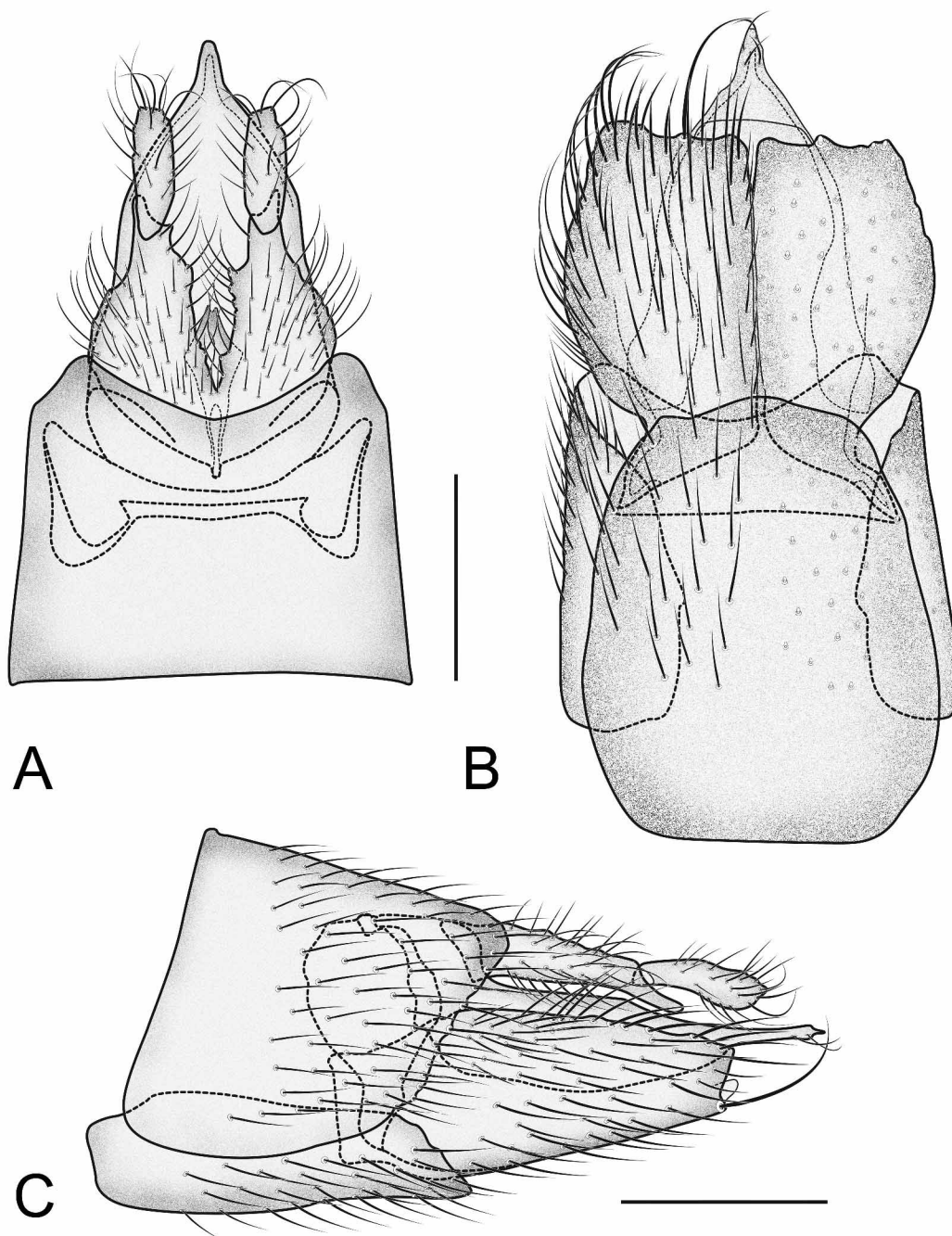


FIGURE 7. Female holotype of *Exechia unimaculata* (Zetterstedt, 1860) – **A.** Terminalia dorsal view. – **B.** Terminalia ventral view. – **C.** Terminalia lateral view. Bars = 0.2 mm.

Exechiopsis (Exechiopsis) indecisa* (Walker, 1856)Mycetophila indecisa* Walker, 1856: 22

Specimen presumably determined as *Mycetophila trivittata* Staeger, 1840 in Zetterstedt (1852: 4234)

Material. Male [SPM-005225, with light blue tag, otherwise unlabelled, standing between *Mycetophila trivittata* var. a and var. b] – Sweden: SK, Kivik's Esperöd in Mellby parish, undated.

Exechiopsis (Exechiopsis) sp.

Specimen determined as *Mycetophila fusca* Meigen, 1804 ♀ in the "Göteborg" collection.

Material. Sex unknown, lacking abdomen [SPM-005226, light green tag, labelled: Åresk. 24 Jun] – Sweden: JÄ, Åreskutan, 24. June 1840.

*** *Exechiopsis (Xenexechia) crucigera* (Lundström, 1909)***Exechia crucigera* Lundström, 1909: 48

Specimen determined as *Mycetophila leptura* Meigen, 1830 in Zetterstedt (1852: 4233).

Material. Male [SPM-005227, with white tag on which Gö is written, labelled: *M. leptura* Meig. ♂. "*M. cingulata* M."] – Sweden: ÖG, Gusum, leg. Wahlberg.

*** *Pseudexechia aurivernica* Chandler, 1978***nec* *Mycetophila trivittata* var. b. Staeger, 1840: 261*Exechia trivittata* pale form; Lundström 1909: 41, figs 67 & 68*Pseudexechia aurivernica* Chandler, 1978: 45, figs 1–4

Specimen determined as *Mycetophila trivittata* Staeger, 1840 var. b in Zetterstedt (1852, 4234).

Material. Male [SPM-005228, with light green tag, labelled: var. b. Mulfj. 29 jul] – Sweden: JÄ, Mullfjället, 29. July 1840.

Although described as late as 1978, this species has been noticed as a pale form of *Pseudexechia trivittata* by Zetterstedt (1852) and by Lundström (1909) who also figured its genitalia. Staeger (1840) also noted a var. b. of *Pseudexechia trivittata* (Staeger, 1840). Staeger's var. b., however, probably refers to *Pseudexechia trisignata* (Edwards, 1913) as his type series consists of these two species (Edwards 1924; also confirmed by the author; see discussion in Chandler (1978)). This is the first correctly reported record of this species from Sweden.

Pseudexechia trivittata* (Staeger, 1840)Mycetophila trivittata* Staeger, 1840: 261

Specimen determined as *Mycetophila trivittata* Staeger, 1840 var. a. in Zetterstedt (1852: 4234).

Material. Male [SPM-005229, with white tag on which "29" is written, labelled: *M. trivittata* Stæg. ♂ Dania a Staeger.] – Denmark, undated, leg. Staeger.

* *Notolopha brachycera* (Zetterstedt, 1852) sp. restit. stat. n.*Mycetophila brachycera* Zetterstedt, 1852: 4224*Brachycampta brachycera*; Poppius, Lundström & Frey 1917: 667*nec Rhymosia cristata*; Edwards 1924: 163*Allodiopsis (Notolopha) tuomikoskii* Zaitzev & Maximova, 2000: 177 **syn. n.****Material. Holotype** (Fig. 8) male [SPM-005230, with light green tag, labelled: *M. brachycera* Zett. ♂ Mulfjäll.] – Sweden: JÄ, Mullfjället, 30. July 1840.

Undetermined specimen in the "Insecta Lapponica" collection.

Material. Male [SPM-005231, without coloured tag, unlabelled] – Locality unknown, undated.

The type specimen confirms well with the drawings and description of *Allodiopsis (Notolopha) tuomikoskii* provided by Zaitzev & Maximova (2000), including shape and distribution of setae on the mesoscutum. Tuomikoski (1966) apparently was aware of this species, but in the collections at Finnish Museum of Natural History there are material of both *N. brachycera* and *N. sibirica* Zaitzev & Maximova, 2000 mixed under the informal name "*subcristata*". As this species by most authors has been synonymized with *N. cristata*, following Edwards (1924), this represents the first correctly reported record of this species from Sweden after Poppius et al. (1917). Hedmark (2000), however, correctly suggested that *N. brachycera* possibly could be a valid name for the distinct variant of *N. cristata* (Staeger, 1840) he reported from northern Sweden.

Notolopha cristata (Staeger, 1840)*Mycetophila cristata* Staeger, 1840: 254Specimen determined as a possible *Mycetophila nigricollis* Zetterstedt, 1852 in the "Insecta Lapponica" collection.**Material.** Male [SPM-005232, without coloured tag, unlabelled] – Locality unknown, undated. Female [SPM-005233, without coloured tag, labelled: *M. nigricollis* ? ♀ Tärna] – Sweden: LY, Tärna, 1821.*Rymosia fasciata* (Meigen, 1804)*Rymosia fasciata* Meigen, 1804: 131Specimens determined as *Mycetophila discoidea* Meigen, 1818 in Zetterstedt (1852: 4214).**Material.** 5 males [SPM-005234 - SPM-005238, with purple red tag, labelled: *M. discoidea* Meig. ♂ Lund Scan.] – Sweden: SK, Lund, 5. October 1838. Male [SPM-005239, with purple red tag, labelled: *M. discoidea* Meig. ♂ Lund Scan.] – Sweden: SK, Lund, 5. October 1838.*Rymosia* sp.Specimen determined as *Mycetophila maculosa* Meigen, 1818 in the "Insecta Lapponica" collection.

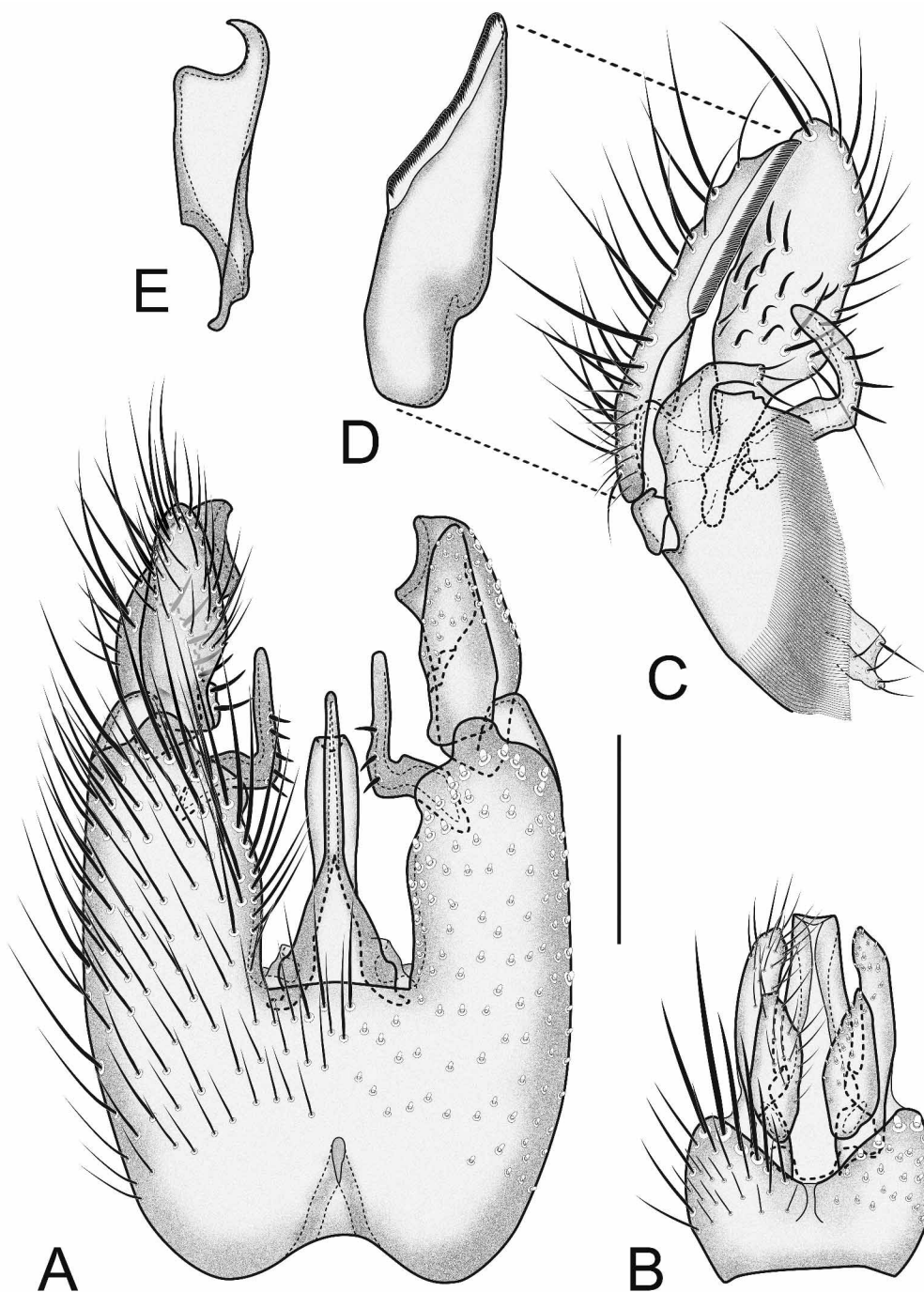


FIGURE 8. Male holotype of *Notolopha brachycera* (Zetterstedt, 1852) sp. restit. stat. n. – **A.** Terminalia in ventral view. – **B.** Tergite IX and cerci in dorsal view. – **C.** Internal face of right gonostylus. – **D.** Dorsal lobe of gonostylus in interiofrontal view. – **E.** Hypandrial lobe in lateral view. Bar = 0.2 mm.

Material. Sex unknown, lacking abdomen [SPM-005240, without coloured tag, labelled: *M. discoidea* ♀ (*M. maculosa* ins-Lapp.)] – Sweden: TO, Juckasjervi, 26 June 1821.

Specimen determined as *Mycetophila maculosa* Meigen, 1818 in the "Göteborg" collection.

Material. Sex unknown, lacking abdomen [SPM-005241, without coloured tag, unlabelled] – Locality unknown, undated.

Specimens determined as *Mycetophila discoidea* Meigen, 1818 in Zetterstedt (1852: 4214).

Material. Sex unknown, only thorax and damaged wings present [SPM-005242, purple red tag, labelled: e fungis excl. Lund 1835] – Sweden: SK, Lund, 1835.

Specimen determined as *Mycetophila fasciata* Meigen, 1804 in the "Exotic" collection.

Material. Sex unknown, lacking abdomen [SPM-005243, without coloured tag, labelled: *Mycetophila fasciata* Mg.] – Locality unknown, undated.

***Stigmatomeria* cf. *crassicornis* (Stannius, 1831)**

Mycetophila crassicornis Stannius, 1831: 22

Mycetophila spinicoxa Zetterstedt, 1852: 4223

? *Cordyla canescens* Zetterstedt, 1855: 4365

Material. Female, lacking abdomen [SPM-005244, with purple red tag, labelled: *M. spinicoxa* Zett. åreskutan (and on separate small label) abiete 26 m.] – Sweden: JÄ, Åreskutan, Abiete, 26 May 1840.

Stigmatomeria Tuomikoski, 1966 is treated here as a genus following Vockeroth (1980, 1981) and Söli et al. (2000). Although this specimen lacks abdomen the generic characters, including vertical blackish marks on the coxae and distinctly swollen flagellars, clearly place it in *Stigmatomeria*. The determination seems rather safe as the two species names associated to this genus most likely refers only to *S. crassicornis* (see Söli et al. 2000 and Zaitzev 2003), and since Edwards (1924) who studied the apparently undamaged type synonymized *M. spinicoxa* with *S. crassicornis*. The type material of *Cordyla canescens* Zetterstedt, 1855 was unfortunately not located in any of the collections, but the species was synonymized by Edwards (1924) based on a female.

* ***Synplasta gracilis* (Winnertz, 1863)**

Rymosia gracilis Winnertz, 1863: 820

nec *Rymosia excogitata* Dziedzicki, 1910: figs 98–102

Rymosia excogitata; Edwards 1941: 76, figs 8d & 8e

Specimen determined as *Mycetophila maculosa* Meigen, 1818 in the "Diptera Scandinaviae" collection.

Material. Male [SPM-005245, upper] and female [SPM-005246, lower] on single pin [with light blue tag, otherwise unlabelled, but standing in between two specimens labelled: *M. maculosa* both of which has lost the abdomen (see under *Allodiopsis* s. lat. spp.)] – Sweden: SK, Kivik's Esperöd in Mellby parish, undated.

* *Tarnania dziedzickii* (Edwards, 1941)

Rhymosia dziedzickii Edwards, 1941: 78, figs 8h & 8i

Specimen determined as *Mycetophila discoidea* Meigen, 1818 in Zetterstedt (1852: 4214).

Material. Male [SPM-005249, purple red tag, labelled: *M. discoidea* Meig. ♂? Lund.] – Sweden: SK, Lund, undated. Hatched female with cocoon on pin [SPM-005250, purple red tag, labelled: Sub muscis Lund 1 mai ♂] – Sweden: SK, Lund, 1. May 1836, leg. Dahlbom.

* *Tarnania nemoralis* (Edwards, 1941)

Rhymosia nemoralis Edwards, 1941: 78, figs 8j & 8k

Specimen determined as *Mycetophila discoidea* Meigen, 1818 in Zetterstedt (1852: 4214).

Material. Female [SPM-005251, deep blue tag, labelled: *M. discoidea* Meig.? ♀. Esperöd.] – Sweden: SK, Kivik's Esperöd in Mellby parish, undated.

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