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## Notes on the types of Mycetophilidae (Diptera) described by STAEGER and ZETTERSTEDT.

By

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In spite of the large amount of work published in recent years upon the fungus-gnats of Europe by DZIEDZICKI, LUNDSTRÖM and LANDROCK, the nomenclature of the family is still in a somewhat unsettled state owing to the fact that no critical study has been made of the collections of the older describers. It has been the writer's endeavour to rectify this, and during a visit to Scandinavia in the summer of 1923 the opportunity was taken of studying the collections of STAEGER and ZETTERSTEDT, in the university museums of Copenhagen and Lund. For facilities generously granted the writer is deeply indebted to Dr. W. LUNDBECK and Dr. SIMON BENGTTSSON.

### I. ZETTERSTEDT'S Collection.

The diptera described by ZETTERSTEDT are included in two distinct collections, both of which are in the museum of the Zoological institution at Lund. These collections are supposed to have formed the bases of ZETTERSTEDT'S two works, *Insecta Lapponica* and *Diptera Scandinaviae*. Unfortunately at the time of his visit the writer was not aware of the existence of the former collection, and studied only the latter. Some types may have been missed on this account, but probably very few, because it would seem that ZETTERSTEDT himself transferred nearly all the actual types of Nematocera to the *Diptera Scandinaviae* collection: these can in most cases be identified with certainty, because full data are given on the labels in ZETTERSTEDT'S own handwriting. All but a few of the types are still in existence in a fair state of preserva-

tion, though as might be expected some of the more fragile specimens have suffered damage. Some of these noted as 'missing' in the following pages may perhaps be in the *Insecta lapponica* collection. The specimens were examined in the dry state only: in a few cases exact determination can only be made after the preparation of balsam mounts.

It was a matter for some surprise to discover that many of ZETTERSTEDT'S descriptions were somewhat carelessly compiled, often from a mixed series of specimens.

*Bolitophila bimaculata* 2 ♂ 2 ♀. agree with LANDROCK'S definition.

*Ceroplatus humeralis*. Type agrees with LUNDSTRÖM'S determination.

*C. atricornis*. Type ♂ = *Platyura semirufa* var. *signata* WINN.

*C. flavus*. 1 ♂ 1 ♀ = *Symmerus annulatus*.

*Platyura lugubris*. 2 ♂. Distinct from other species known to me. *An* almost reaching the margin, though faint apically. *R*<sub>4</sub> extremely short, vertical. *Sc* ends immediately before the base of *Rs*. First segment of front tarsus equal to or very slightly longer than the tibia. Hypopygium with the ninth tergite large, narrowed apically: two pairs of small, finger-like, bare claspers, somewhat as in *P. fasciata* LATR.

*P. rostrata*. Type ♂ (Ostrogothia) is not the species I have figured as *Asindubou rostratum*: it is much larger than the British form, has a shorter proboscis, relatively longer palpi, and three well-marked blackish stripes on the mesonotum: there are also differences in the hypopygium. The specimen ZETTERSTEDT referred to as var. b is different, and is probably the same as our British form, though the abdomen is missing. My *A. rostratum* is really the same as LUNDSTRÖM'S *A. flavum*, his figures of the male structures being more accurate.

*P. ruficornis*. 2 ♂ (Esperöd) = *P. pectinifera* EDW.

*P. zonata*. Type damaged, but probably = *concesa* WALK. as previously suggested by me.

*Sciophila cinerascens*. Agrees with DZIEDZICKI'S interpretation.

*S. diluta*. Type ♀ has 4 scutellar bristles, *f Cu* below base of *Rs*: first segment of front tarsus as long as the tibia.

*S. dissimilis*. Only part of one wing remains, but enough to show that the species is a *Tetragoneura* allied to but distinct from *T. sylvatica* CURT., the cubital fork being narrow towards the base.

*S. fasciata*. Type missing. A ♂ from Undersåker is perhaps *M. livida* DZ.

*S. flavicollis*. Type ♀ fragmentary. Possibly the ♀ of *M. ruficollis* ZETT. but first front tarsal segment a little shorter than the tibia.

*S. geniculata*. Only fragments.

*S. griseovittata*. Type ♀ has 3 scutellar bristles (2 on one side, 1 on the other): *f cu* before base of *Rs*: first segment of front tarsus slightly shorter than the tibia.

*S. guttiventris*. Type ♂ is a *Polylepta*, apparently identical with *P. undulata* WINN.

*S. incisurata*. Types agree with DZIEDZICKI's figures.

*S. limbatella*. Type ♂ (Lärketorp) is *S. sharpi* EDW.

*S. melanogaster*. Type ♂ in good condition: evidently the ♂ of

*S. vittiventris* described on the previous page. All coxae simple. Hypopygium as in *Mycomyia elegans* (LUNDSTR.), which is doubtless synonymous.

*S. nigricornis*. Type ♂ (Mulfjället) is apparently *M. ornata* (MG.) DZ.: the ♂ from Löfirik is another species, but is damaged and indeterminable. The species figured by LUNDSTRÖM as *S. nigricornis* is different, and may be renamed *M. melanoceras*. DZIEDZICKI's *M. nigricornis* is also quite different, and may be named *M. pectinifera*.

*S. nitida*. Type ♀ Arbrå. Differs from *M. incisurata* in the venation, *f cu* being distinctly beyond *r-m*.

*S. notata*. Resembles *Mycomyia marginata* MG., but distinct by venation, *Sc* curving into *R* just beyond the small cell.

*S. pilosula*. Missing.

*S. pubescens*. Missing.

*S. ruficollis*. Mid coxae with long spur. *Sc* curving down to the middle of small cell: *f cu* well before base of *r-m*. Scutellum with 2 bristles (?). First segment of front tarsus as long as the tibia. Hypopygium small and hidden.

*S. sororcula*. Type ♀ belongs to the *fasciata* group, but indeterminable without ♂.

*S. trilineata*. Type ♂ (Hernösand) and another agree with DZIEDZICKI's figures.

*S. trivittata*. Missing.

*S. univittata*. Type has lost abdomen: may be a variety of *M. trilineata* (ZETT).

*S. zonata*. Type ♂ has lost abdomen: it is a *Polylepta*, apparently distinct from *P. guttiventris* by the venation, *M*. being faint towards the base, *f Cu* just beyond the tip of *Sc*. and *Sc*<sub>2</sub>, about the middle of the small cell. As in the other species of this group, the middle tibiae have a conspicuous swelling at the base, the dorsal surface of which is covered with fine pubescence.

*Leia apicalis*. Belongs to *Leia* s. str. (*Roudaniella*): probably the same as MEIGEN's *L. dimidiata* (= *terminalis*).

*L. brevicornis*. 1 ♂ 2 ♀ = *Mcgophthalmidia crassicornis* (CURTIS).

*L. crucigera*. Missing.

*L. humeralis*. Type ♀ = *Boletina basalis* MG.

*L. marklini*. Missing.

*L. nigra*. Type ♂ = *Boletina basalis* MG.

*L. posticata*. Apparently identical with *L. picta* MG.

*Boletina borealis*. 1 ♂ (Mulfjället) and 1 ♂ (Tärna), both agreeing with Lundström's figures.

*B. brevicornis*. 2 ♀ only present, therefore indeterminable.

*B. consobrina*. Type ♂ (Skalstugan) = *B. winnertzi* DZ. (*cincticornis* WALK.),

→ *B. tenella*. 2 ♂ (Mulfjället) = *Coclosia flavicauda* WINN.

*B. unifurcata*. Missing.

*Gnoriste bilineata*. Type ♀ damaged but recognisable. The rostrum is very long, two-thirds as long as the wing.

*G. trilineata*. As suggested by ZETTERSTEDT, this is most probably the ♂ of *G. bilineata*. It differs from *G. apicalis* MG. in the longer rostrum and rather differently-shaped clasper.

*Pachypalpus cinereus*. 1 ♀ (Westö) = *Cordyla crassicornis* MG.

*Cordyla canescens*. Type ♀ = *Allodia crassicornis* (STX.).

*Mycetophila alternans*. Type missing. A male labelled »Bjorn» apparently agrees with my determination.

*M. aterrима*. Two specimens: genus *Dolopsis*, not *Epicyptra* as supposed by Strobl, but distinct from *D. scataphora* (PERRIS).

*M. atricauda*. Type ♂ agrees with Lundström's description, so far as can be seen without mounting.

*M. brachycera*. Type ♂ = *Rhymosia cristata* STAEG. The species called by LUNDSTRÖM *Allodia brachycera* is apparently the same as Staeger's *M. proxima*.

*M. canescens*. Type ♂ in good condition. A large species of *Allodia*, differing from the other known species of the genus and approaching *Exechia* in having *f Cu* slightly beyond *f M*. Mesonotum without strong bristles except at the margin. Two scutellar bristles: three propleural. Front tarsi simple. Claws with a long tooth near the base. Hypopygium large, resembling that of *A. griseicollis* LUNDSTR.

*M. cinerea*. Abdomen missing; wing closely resembles *M. dimidiata* STAEG.

*M. exigua*. Type ♂ = *Phoronia rustica* DZ.

*M. ferruginea*. Type ♀ = *Dynatosoma* sp., probably identical with *D. rufescens* (see note below).

*M. fissicauda*. Type ♂ in good condition: it is not the

species identified by Lundström, but = *Trichonta claripennis* LUNDSTR. LUNDSTRÖM'S *T. fissicauda* may be renamed *T. adunca*.

*M. flexuosa*. Type ♀ apparently = *Dynatosoma fuscicornis* MG.

*M. fuscula*. ♂ ♀ without abdomen: *Allodia* sp. with three propleural bristles, *f Cu* only just before *f M*.

*M. grisea*. Type (♂, not ♀) = *M. fungorum* (DEG.).

*M. griseola*. Types may be the same as *Allodia griseicollis* LUNDSTR. (nec STAEG.). ZETTERSTEDT'S name may perhaps be used for this species in order to avoid the introduction of a new term.

*M. interrupta*. Type ♂ agrees with *Exechia interrupta* of DZIEDZICKI'S Atlas (= *E. serpentina* LUNDSTR.).

*M. lucidula*. Agrees with LUNDSTRÖM'S *Exechia lucidula*.

*M. lutescens*. Probably a pale specimen of the ♀ of *Dynatosoma rufescens*, though it may be the ♀ of *D. thoracica*.

*M. melanopyga*. Type mouldy and cannot be properly examined without mounting, but may be LUNDSTRÖM'S *Trichonta melanopyga*.

*M. nigricollis*. The ♂ from Lund should be taken as the type: this is *Allodia longicornis* (WALK.); a second ♂ from Hofverberget is *A. truncata* EDW. The species I have figured as *A. nigricollis* is *A. grata* (MG.). I would suggest reviving the name *ornaticollis* MG. for *longicornis* WALK.

*M. nigricornis*. Probably LUNDSTRÖM'S *Phronia nigricornis*, but too mouldy for proper examination.

*M. nigricoxa*. Agrees with *Dynatosoma reciprocum* (WALK.).

*M. obscurella*. Missing.

*M. obsoleta*. Very similar to *M. czizcki* LANDR. in wing markings, but colour of thorax different.

*M. ochracea*. 2 ♀ = *Exechia pallida* STAN.

*M. parvula*. Missing.

*M. rufescens*. There is a ♂ in the collection from Smoland which agrees with DZIEDZICKI'S *M. rufescens*, but the type is the specimen from Lycksele, which is a ♂ (not ♀ as Zetterstedt supposed) *Dynatosoma*. In August 1923, in the grounds of the Stockholm Museum, I observed an orange-coloured *Dynatosoma* ovipositing on the under side of a fungus (*Polyporus sulphureus*) growing on an oak tree. The specimen was secured, together with a portion of the fungus bearing the eggs, and soon after my return to England at the end of August a number of adults of both sexes hatched out. These showed some sexual dimorphism, the female having the abdomen uniformly orange, while in the male it is mostly black. ZETTERSTEDT'S *M. ferruginca* therefore proves to be the ♀ of his *M. rufescens*; probably *M. lutescens* is also the same species, though it may be the female of *M. thoracica*. The

species of *Mycetophila* identified by WINNERTZ and DZIEDZICKI as *M. rufescens* must be known as *M. ornata* STEPH.

*M. spinicoxa*. Type = *Allodia crassicornis* STAN.

*M. thoracica*. A species of *Dynatosoma*, distinct from *D. rufescens* by the shorter and less spiny male claspers.

*M. unimaculata*. Missing.

*M. uninotata*. Type is a ♂ (not ♀) *M. lincola* MG.

*M. vittipes*. No ♂ in the series

## II. STAEGER'S Collection.

The Diptera of STAEGER'S collection form part of the general collection of Danish Diptera in the University Zoological Museum at Copenhagen. The collection was re-arranged about 1880 by Hansen, and all original labels destroyed. Consequently, when there are a number of specimens representing a species it is not always easy to tell which were STAEGER'S types. However the collection is believed to contain practically the whole of STAEGER'S material, and it would seem that in the case of Nematocera very few additions have been made since his time. The specimens are for the most part in perfect condition, a fact which helps to make up for the unfortunate lack of data on the labels.

*Macrocera fascipennis*. 1 ♂, agrees with LANDROCK'S definition.

*Platyura brunnipennis*. 7 ♀ *P. semirufa* MG. (dark form): not the species figured by LUNDSTRÖM as *P. brunnipennis*.

*P. dorsalis*. 1 ♂, agrees with that figured by me as *dorsalis*.

*P. pallida*. 1 ♂ (type?) and 1 ♂ (var. b.) both = *acstinialis* WINN.; also 4 ♀.

*P. unicolor*. 1 ♂ 1 ♀ = *P. discolor* MG. (*unicolor* EDW.)

*Sciophila affinis*. 4 ♂ *Mycomyia trilineata* (ZETT.) (or closely allied species); 1 ♂ *M. incisurata* (ZETT.). The species figured by DZIEDZICKI as *S. affinis* must be known as *M. fimbriata* (MG.).

*S. circumdata*. 1 ♂ 3 ♀ *Mycomyia lucorum* (WINN.).

*S. halterata*. Type is ♀, not ♂ as stated.

*S. notabilis*. 2 ♀, *Mycomyia* sp.: four scutellar bristles: *f Cu* before base of *r-m*: front tibia shorter than the first tarsal segment.

*S. thoracica*. 2 ♂ 1 ♀. *Sciophila (Lasiosoma)*: very distinct by the hypopygial structure; The ninth tergite is very short, only about half as long as the side pieces; the claspers bear ventrally only a single very long spine with slightly swollen tip. The species figured as *L. thoracica* in DZIEDZICKI'S atlas is quite different, and may be renamed *S. dziedzickii*.

*Boletina anomala*. 1 ♀ *Azana*. Posterior coxae dark at base and tip.

*B. dubia*. Apparently = *B. plana* WALK. The name *dubia* is in any case preoccupied by Meigen.

*B. flava*. 1 ♂ 4 ♀ *Coclosia flava* auct.

*B. nigricoxa*. Several specimens; ♂ hypopygium agrees with Lundström's figure; LANDROCK's figures apparently represent a different allied species. I have previously given *Mycetophila cincticornis* WALK. as a synonym of *B. nigricoxa*, but a more careful examination of WALKER's type shows that it is really *B. wimmertzi* Dz. The two species are very closely allied, but apart from the blackish coxae and base of antennae, *B. nigricoxa* shows some slight differences from *B. wimmertzi* in the hypopygium.

*B. sciarina*. The series includes some *B. sciarina* in DZIEDZICKI's sense, and also some *B. gripha* Dz.

*Pachypalpus brevicornis*. 2 ♂ 2 ♀, agreeing with my figures (in course of publication).

*P. flaviceps*. 4 ♂, alike in coloration but structure of claspers apparently representing two if not three species. I have figured elsewhere the form which I would select as the type.

*P. semiflavus*. 8 ♂ 1 ♀, agreeing with my figures.

*Mycetophila abdominalis*. Type is a ♂ (not ♀) *Dynatosoma*, quite distinct in coloration and structure of hypopygium, which is very small, with short almost triangular claspers.

*M. bicincta*. 1 ♂ *Exechia interrupta* ZETT. (*serpentina* LUNDST.); also 1 ♀. LUNDSTRÖM's *Exechia bicincta* being quite a different species must be renamed, and I would suggest the name *E. dizona*.

*M. caudata*. 1 ♂ *M. (Opistholoba) caudata* auct. I see no justification for retaining the genus *Opistholoba*.

*M. cristata*. 2 ♂ 2 ♀ *Rhymosia cristata* auct.

*M. dimidiata*. A long series, agreeing with the usual interpretation. The name however is preoccupied by *Leia dimidiata* (MG.), which was first described as a *Mycetophila*, and the species must be known as *M. ocellus* WALK.

*M. discicollis*. 2 ♀ *Allodia* sp., near *A. sylvatica* LANDR. but not determinable with certainty in the absence of the ♂.

*M. dorsalis*. 1 ♂ agreeing with LUNDSTRÖM's later determination; also several ♀.

*M. fuscipennis*. 2 ♀ *Allodia* sp., Antennae rather swollen at the base, but cerci shorter than in *A. caudata* WINN. 3 propleural bristles; *f. Cu* below base of *r-m*. Also 1 ♀ *Allodia* sp. (*lugens* group).

*M. griseicollis*. Three species are represented in the series: 2 ♂ 1 ♀ *A. fissicauda* LUNDST.; 1 ♂ 1 ♀ *Allodia caudata* WINN.;

and 1 ♀ *Rhymosia* sp. near *spinipes* WINN.: The first and last may be disregarded and the name applied to the second.

*M. melanura*. 4 ♂ 5 ♀. The hypopygium (unmounted) looks the same as in *Trichonta melanopyga* (ZETT.) LUNDST.

*M. minuta*. 1 ♂ *Trichonta* sp.; also 1 ♂ *Anatella* sp. I would suggest restricting the name to the latter.

*M. nana*. 2 ♀ *Exechia lateralis* LUNDSTR. (nec MG.).

*M. paludosa*. Type damaged; probably the same as *Zygomylia notata* STAN.

*M. pictipennis*. 1 ♀ *Zyg. pictipennis* auct.

*M. proxima*. Two males are *Allodia brachycera* LUNDSTR. (nec. ZETT.), and I would restrict the name to these. A third ♂ is *A. amena* WINN., and a fourth is yet another species of *Allodia*.

*M. punctipes*. 3 ♂ 6 ♀. *Allodia crassicornis* STAN.

*M. strigata*. 1 ♂ 3 ♀ *M. fuliginosa* Dz. The ♂ was not mentioned in the description and cannot therefore be the type, but agrees with the ♀ in coloration and chaetotaxy.

*M. submaculata*. A long series, agreeing with WINNERTZ's description.

*M. tarsata*. ♂ ♀ *Phronia crassipes* WINN., also ♂♂ of other species of *Phronia*. The ♀ *crassipes* should be taken as the type.

*M. trinotata*. The type (a ♂ not ♀) is *Mycetophila russata* Dz. This discovery leaves WINNERTZ's *Epicrypta trinotata* nameless: I would suggest calling it *E. testata*, in allusion to the shell-bearing habits of the larva.

*M. trivittata*. As typical examples there are 2 ♂ *Exechia trivittata* EDW., and 1 ♂ *Exechia trisignata* EDW., under »var. b» there is 1 ♂ of each of these species.

*M. vara*. The series includes some *Zygomylia vara* and some *Z. valida* WINN.

*M. venosa*. 1 ♂ *Trichonta spinosa* LUNDST.

*M. vicina*. Described from ♀ only, but series now contains 4 ♂ 2 ♀ *Exechia magnicauda* LUNDST. A third ♀ is close to if not identical with *E. tenuicornis* v. D. WULF; this last may have been the original type, but in view of the uncertainty the name need not be adopted.

### III. Summary of changes in nomenclature.

Usual name.	Revised name.
<i>Platyura pectinifera</i> EDW.	<i>P. ruficornis</i> ZETT.
<i>P. aestivalis</i> WINN.	<i>P. pallida</i> STANEG.
<i>P. unicolor</i> STANEG.	<i>P. discolor</i> MG.
<i>Zygomylia affinis</i> Dz.	<i>M. fimbriata</i> MG.

<i>Usual name.</i>	<i>Revised name.</i>
<i>M. elegans</i> LUNDSTR.	<i>M. vittiventris</i> ZETT.
<i>M. lucorum</i> WINN.	<i>M. circumdata</i> STAEG.
<i>M. nigricornis</i> DZ.	<i>M. pectinifera</i> nom. n.
<i>M. nigricornis</i> LUNDST.	<i>M. melauoceras</i> nom. n.
<i>Sciophila skarpi</i> EDW.	<i>S. limbata</i> ZETT.
<i>S. thoracica</i> DZ.	<i>S. dziedickii</i> nom. n.
<i>Polycepta undulata</i> WINN.	<i>P. guttiventris</i> ZETT.
<i>Boletina wimmerti</i> DZ.	<i>B. cincticornis</i> WALK.
<i>Erechia bicincta</i> LUNDST.	<i>E. dizona</i> nom. n.
<i>E. lateralis</i> LUNDST.	<i>E. nana</i> STAEG.
<i>E. serpentina</i> LUNDST.	<i>E. bicincta</i> STAEG.
<i>interrupta</i> ZETT., DZ.	
<i>Allodia brachycera</i> LUNDST.	<i>A. proxima</i> STAEG.
<i>A. nigricollis</i> EDW.	<i>A. ornatcollis</i> MG.
<i>A. griseicollis</i> LUNDST.	<i>A. griseola</i> ZETT.
<i>A. caudata</i> WINN.	<i>A. griseicollis</i> STAEG.
<i>Trichonta charipennis</i> LUNDST.	<i>T. fissicauda</i> ZETT.
<i>T. fissicauda</i> LUNDST.	<i>T. adunca</i> nom. n.
<i>T. melanopyga</i> LUNDST.	<i>T. melanura</i> STAEG.
<i>T. spinosa</i> LUNDST.	<i>T. venosa</i> STAEG.
<i>Phronia crassipes</i> WINN.	<i>P. tarsata</i> STAEG.
<i>P. rustica</i> DZ.	<i>P. exigua</i> ZETT.
<i>Dynatosoma ferrugineum</i> ZETT.	<i>D. rufescens</i> ZETT.
<i>Mycetophila dimidiata</i> STAEG.	<i>M. ocellus</i> WALK.
<i>M. fuliginosa</i> DZ.	<i>M. strigata</i> STAEG.
<i>M. rufescens</i> WINN., DZ.	<i>M. ornata</i> STPH.
<i>M. russata</i> DZ.	<i>M. trinotata</i> STAEG.
<i>Epicyptha trinotata</i> WINN.	<i>E. testata</i> nom. n.