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**BIOLOGIA**

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**41**

**1992**

UDC 595.771

Olavi KURINA\*

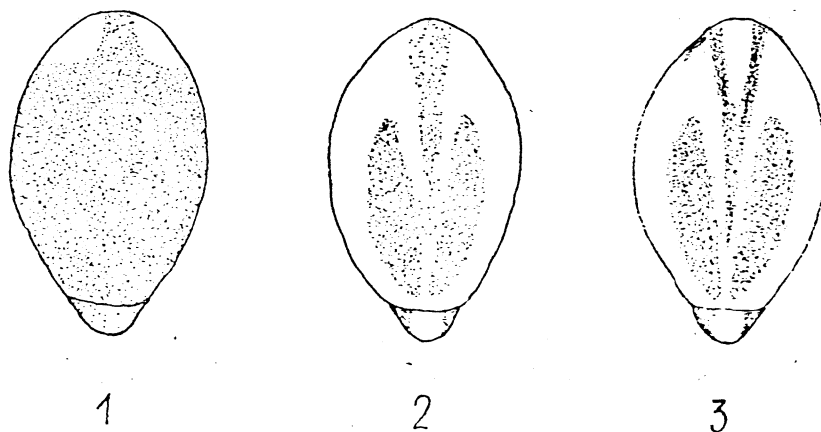
A NEW SPECIES OF THE GENUS *MYCETOPHILA* MEIGEN  
(DIPTERA, MYCETOPHILIDAE) FOUND IN ESTONIA

Abstract. A new fungus gnat *Mycetophila estonica* sp. n. is described. Adult specimens, 19 ♂♂, were reared from fruit bodies of *Lactarius deterrimus*, collected in three localities in Western Estonia. *M. estonica* is closely related to *M. blanda* Winn. and *M. signatoides* Dz., both also found in Estonia. The colour pattern of the mesonotum and some details of the hypopygium are figured for all three species.

*Mycetophila* Meigen, 1803, is a widely distributed genus of fungus gnats. So far there are 143 species recorded in the Palaearctic region (Laštovka, 1988), 28 of them in Estonia (Lackschewitz, 1937; Kurina, 1991). My original material from Estonia has been reared from fruit bodies of Macrofungi and contains a new species among all the 14 *Mycetophila*-species collected by me in 1988—1991.

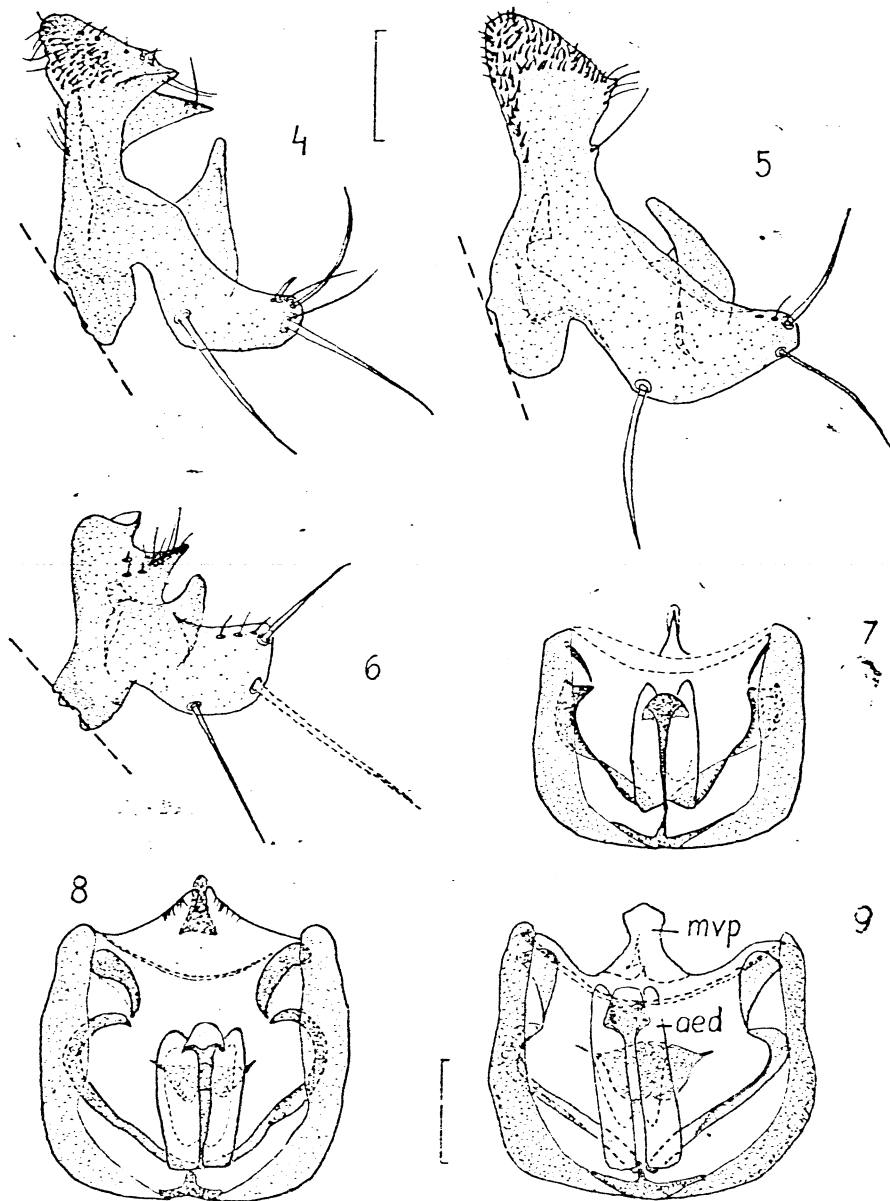
*Mycetophila estonica* sp. n.

Male. Body length 3.9 mm, wing length 3.2 mm, Frons brown. Palps yellow. Other mouthparts and face yellowish to brown. Scape and pedicel of antennae yellow, flagellum dull brown. Mesonotum yellow with a V-shape stripe and with two brownish black elongated spots (Fig. 3.). Pronotum and propleuron dark yellow. Mesopleuron, pteropleuron, metapleuron and sternopleuron dull brownish. Scutellum brown



Figs. 1—3. *Mycetophila* Mg. Mesonotums. 1 — *M. blanda* Winn., 2 — *M. signatoides* Dz., 3 — *M. estonica* sp. n.

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Figs. 4—9. *Mycetophila* Mg. Male genitalia. 4, 8 — *M. blanda* Winn., 5, 9 — *M. estonica* sp. n. (holotype), 6, 7 — *M. signatoides* Dz. 4—6 dorsal part of gonostylus, dorsal view; the fragmentary line shows the disconnection site of the dorsal part of gonostylus from the hypopygium. Scale represents 0.05 mm. 7—9 — central part of hypopygium, the ninth tergite removed, dorsal view. Scale represents 0.1 mm. aed — aedeagus, mvp — medioventral process.

with yellow part of hind tibia with central part with a yellow spot on the tergites. Type specimens: Figs. 5, 9.

Female. Material examined: Holotype, *Lactarius* *edulis* (Paratype), ♂, Island of Vormsi, emerged from pupae 4.viii.1988; 27.—30.ix.1988. Additional material: The type material is deposited in the Institute of Zoology, University of Tartu.

Previous descriptions of *M. blanda* (1990) were based on old material and are not correct. The species *M. signatoides* Dz. and *M. signatoides edulis*, which were described from Vormsi Island by Lackner (1979) and Lackner (1979), are new species and have not been described.

Fig. 10. *Mycetophila* Mg. Male genitalia. 10 — dorsal part of gonostylus, dorsal view; the fragmentary line shows the disconnection site of the dorsal part of gonostylus from the hypopygium. Scale represents 0.05 mm. 11—13 — central part of hypopygium, the ninth tergite removed, dorsal view. Scale represents 0.1 mm. aed — aedeagus, mvp — medioventral process.

All the species of *Mycetophila* are distinguished by the ventral part of the gonostylus (Figs. 1—3) and the aedeagus (Fig. 4—6).

with yellow middle part. Coxae bright yellow. Femurs yellow. Distal part of hind femur with a dark brown streak. Halteres yellow. Wings with central spot, preapical spot does not reach  $M_1$ . Abdomen brown with a yellow median stripe and anterior and posterior margins of tergites. Two last tergites wholly brownish. Details of hypopygium, Figs. 5, 9.

Female unknown.

Material studied:

Holotype  $\delta$ , Estonia, the Nigula State Nature Reserve, emerged from *Lactarius deterrimus*, 20.viii.1990, fruit body was collected 5.viii.1990.

Paratypes, pinned specimens:  $\delta$ , same data as those of holotype;  $\sigma$ , Island of Saaremaa, the Viidumäe State Nature Reserve, Audaku, emerged from *L. deterrimus* 15.viii.1988, fruit body was collected 4.viii.1988; 4  $\delta\delta$ , Island of Abruksa, emerged from *L. deterrimus* 27.—30.ix.1991, fruit bodies were collected 10.ix.1991.

Additional material in alcohol: 12  $\delta\delta$ , localities the same as those of the holotype and the paratypes, also from *L. deterrimus*.

The types and all other specimens are deposited in the collection of the Institute of Zoology and Botany, Tartu.

Previously ten specimens of this new species collected in 1988 and 1990 were identified by me as *M. blanda* Winn. (Kurina, 1991). In my old material of *M. blanda* Winn., 50 specimens had been determined correctly. The recent material, reared in 1990 and 1991, also contains *M. signatoides* Dz., another species closely related to *M. blanda* Winn. *M. signatoides* (25  $\delta\delta$ ) emerged from *Leccinum scabrum* and *Boletus edulis*, which were collected in the Nigula State Nature Reserve and Vormsi Island. Earlier *M. signatoides* had been recorded in Estonia by Lackschewitz (1937). According to the literature (Hackman, Meinander, 1979; Кривошечна et al., 1986), besides *Leccinum* and *Boletus* this species has also been registered on *Suillus* and *Xerocomus*.

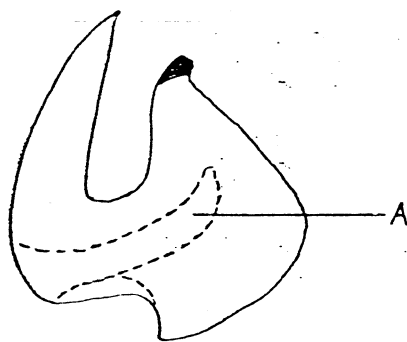


Fig. 10. *Mycetophila* Mg. Ventral part of gonostylus, a general scheme for the group of *M. blanda* Winn., *M. signatoides* Dz. and *M. estonica* sp. n. A — appendage on the inner side.

5, 9 — *M.*  
of gonosty-  
dorsal part  
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parts 0.1 mm.

All the above-mentioned three species distinctly differ from other species of *Mycetophila* by the presence of a long inner appendage of the ventral part of the gonostylus (Fig. 10.). These species can be distinguished from each other by the pigmentation of their mesonotums (Figs. 1—3.) and by the construction of the dorsal part of the gonostylus (Figs. 4—6.). There are also differences in the shape of the aedeagus and the medioventral process of the hypopygium (Figs. 7—9.).

## Acknowledgements

I thank Dr. A. I. Zaitzev (Institute of Evolutionary Morphology and Ecology of Animal, Moscow) for his kind advice, and K. Elberg, Cand. Biol. (Institute of Zoology and Botany, Tartu) for his help and critical perusal of the manuscript.

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Presented by K. Elberg

Received  
Feb. 14, 1992

Olavi KURINA

### UUS LIIK PEREKONNAST MYCETOPHILA MEIGEN (DIPTERA, MYCETOPHILIDAE) EESTIST

Senini on perekonnast *Mycetophila* Mg. Palearktikas tuntud 143 liiki, seejuures Eestis 28 liiki.

Uus liik — *Mycetophila estonica* sp. n. — on väga lähedane liikidele *M. blanda* Winn. ja *M. signatoides* Dz. Kõigile kolmele liigile on iseloomulik gonostüüli ventraalse osa sisemisel küljel asuv jätke, mis ülejäänud liikidel puudub. Omavahel on nimetatud liigid selgesti eristatavad mesonootumi pigmentatsiooni, gonostüüli dorsaalse jätke, eedeaguse ja hüpopüügi medioventraalse jätke poolest.

Uue liigi 19 isast valmiksääske saadi nende väljakasvatamisel vastsetest kuuse-riisika (*Lactarius deterrimus*) viljakehadest.

Олави КУРИНА

### НОВЫЙ ВИД РОДА MYCETOPHILA MEIGEN (DIPTERA, MYCETOPHILIDAE) ИЗ ЭСТОНИИ

До сих пор из рода *Mycetophila* Mg. в Палеарктике было известно 143 вида, причем в Эстонии 28 видов.

Новый вид — *Mycetophila estonica* sp. n. — очень близкий к видам *Mycetophila blanda* Winn. и *M. signatoides* Dz. *M. estonica* отличается от них по пигментации мезонотума, форме дорзального придатка гоностилия, эдеагусу и медновентральному придатку гипопигии.

Имаго (19 ♂♂) вида были выведены из плодовых тел гриба *Lactarius deterrimus*.

UDC 595.771

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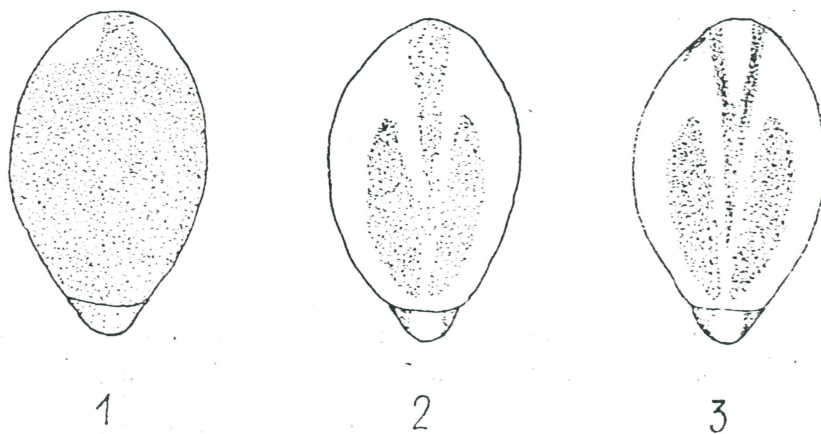
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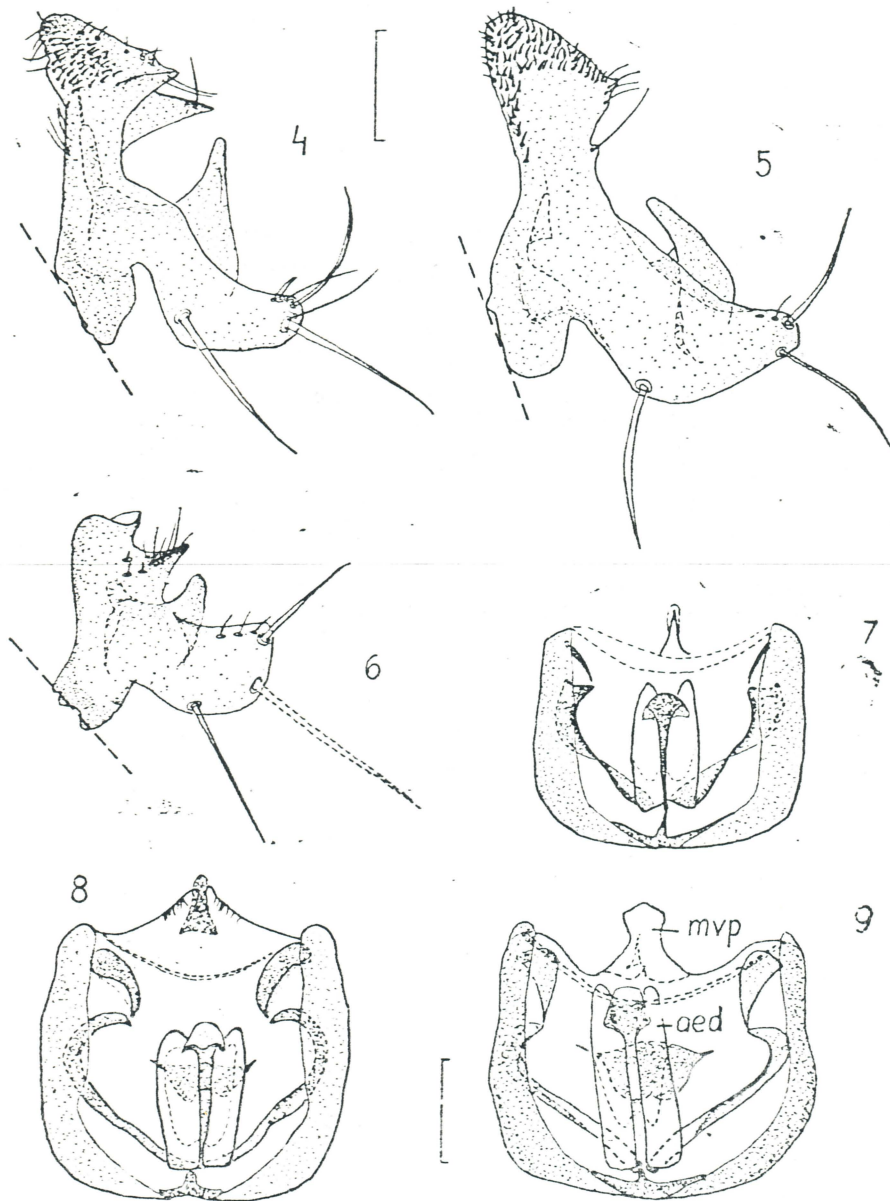
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Female. Material examined: Holotype ♀, Island of Lactarius, Paratyp ♀, Island of emerged from water 4.viii.1988; 27.—30.ix.1988. Addition of the holotype. The type is deposited in the Institute of Zoology, Academy of Sciences of the USSR.

Previous species of *Mycetophila* described in 1990 were *M. blanda* Winn. and *M. estonica* sp. n. The old material was examined and found to be correctly identified. The species *M. signatoides* Dz. and *M. signatoides edulis*, which were described from Vormsi Island by Lackschewitz and Schneider, 1979; 1980, are the same species as *M. signatoides* Dz.

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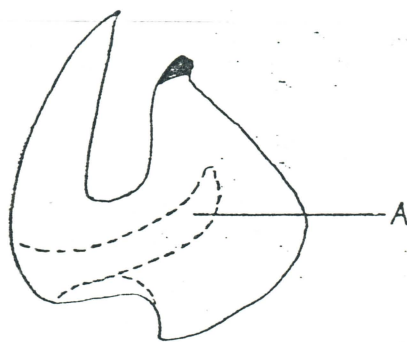


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