

Six new species of fungus gnats of the genus *Mycetophila* MEIGEN from Russia (Diptera, Mycetophilidae)

[Sechs neue Pilzmückenarten der Gattung *Mycetophila* MEIGEN aus Rußland (Diptera, Mycetophilidae)]

by

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Abstract	The following new taxa of Mycetophilidae are recorded from Russia: <i>Mycetophila sublunata</i> spec. nov., <i>Mycetophila nemorivaga</i> spec. nov., <i>Mycetophila petulca</i> spec. nov., <i>Mycetophila scalprata</i> spec. nov., <i>Mycetophila ostentanea</i> spec. nov., <i>Mycetophila filiae</i> spec. nov. Descriptions of the new species with detailed illustrations are given.
Key words	Mycetophilidae, <i>Mycetophila</i> , Russia, six new species
Zusammenfassung	Folgende neue Taxa aus der Familie Mycetophilidae werden aus Russland beschrieben: <i>Mycetophila sublunata</i> spec. nov., <i>Mycetophila nemorivaga</i> spec. nov., <i>Mycetophila petulca</i> spec. nov., <i>Mycetophila scalprata</i> spec. nov., <i>Mycetophila ostentanea</i> spec. nov., <i>Mycetophila filiae</i> spec. nov. Die Beschreibungen der neuen Arten beinhalten detaillierte Darstellungen der Genitalien.
Stichwörter	Mycetophilidae, Mycetophila, Rußland, sechs neue Arten

Introduction

While studying Mycetophilidae collection of A. N. SEVERTZOV Institute of Ecology and Evolution, six new unknown species of the genus *Mycetophila* were found. The material has been collected by netting in various regions of Russia. Holotypes and paratypes of new species are preserved in A. N. SEVERTZOV Institute of Ecology and Evolution, Russian Academy of Sciences (Moscow, Russia). The abbreviation "IEE" is used.

Description of species

Mycetophila sublunata spec. nov.

(Fig. 1 c, e)

Material: Holotype: ♀, Russia, Kostroma Reg., Ugory, 6.ix.1981, leg. ZAITZEV (IEE).

Paratypes: Russia: 1 ♀, Moscow Reg., Krasnaya Pakhra, 26.v.1988, leg. ZAITZEV; 1 ♂, Kaluga Reg., Kireykovo, 25.v.-4.vi.1992, leg. ZAITZEV; 28 ♂♂, Altai Mts., Teletskoe Lake, Artybash, 30.31.vi.1.19.22-24.vi.5.vii.1981, 1-10.v., 11-20.v., 21-27.v.1982, leg. ZAITZEV; 1 ♂, Sakhalin I., Kuznetsov Cape, 3.ix.1986, leg. ZAITZEV (IEE).

Additional material: 4 ♀♀, Russia, Karelia, Kivach Res., 24.viii.-6.ix.1984, leg. YAKOVLEV (IEE).

Male

Head dark brown. Clypeus, palpi and mouth parts yellow. Antennae brown. Scape and pedicel yellow. Sixth flagellomere about 1.5 times as long as wide.

Thorax: Mesonotum shining, mostly dark brown, humeral and posterolateral area yellow. Scutellum yellow with dark brown lateral parts. **Wing** length 3.4-3.5 mm. Wing with a distinct central spot. Preapical spot starting at C well beyond tip of R_1 , filling the apex of cell R_1 , proximal part extending M_1 . R with 8-9 setulae below. R_1 with 20-23 setulae below. M before rm without setulae below and above. Ratio of rm : M petiole

1.2-1.5. **Legs** mostly yellow. Apical part of hind femur dark brown. Mid tibia with 3 a, 1 ad, 5 d, 4 p, 3 v, first two rows of anterior setulae dark brown. Hind coxa with several posterior setae about as long as the posterior preapicals. Hind tibia with 6 a, 4 strong d (with 6 shorter erect bristles interspersed with the longer ones), 3 p, anterior and ventral setulae dark brown.

Abdomen dark brown. Apical bristles of abdominal sternites not much longer than the others. Genitalia light brown.

Female

Unknown.

Remarks: This species is closely related to *Mycetophila lunata* MEIGEN, 1804, from which it differs in the shape of laterodorsal part of dorsal lobe of gonostylus and in having two spines on the ventral lobe of gonostylus.

***Mycetophila petulca* spec. nov.**

(Fig. 1 a,d)

Material: **Holotype:** ♂: **Russia.** Sakhalin I., Kuznetsov Cape, 11.ix.1986, leg. ZAITZEV (IEE). **Paratypes:** **Russia:** 4 ♂♂, Sakhalin I., Kuznetsov Cape, 21.ix.1986, leg. ZAITZEV; 2 ♂♂, Sakhalin I., Kuznetsov Cape, 18.ix.1986, leg. ZAITZEV; 2 ♂♂, 1 ♀, Primorsky Terr., Lazo, Sokolchi, 19.vii.1979, leg. ZAITZEV (IEE).

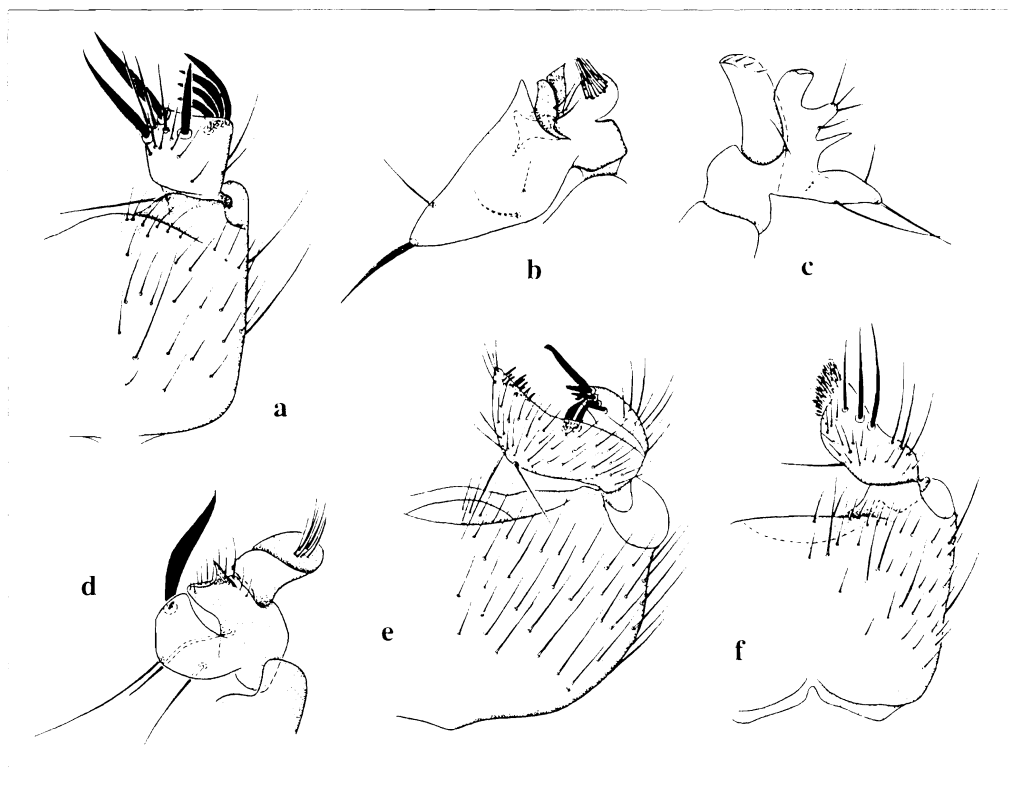


Fig. 1 a-f: Male genitalia of *Mycetophila* species. - **a, d:** *Mycetophila petulca* spec. nov.; - **b, f:** *Mycetophila nemorivaga* spec. nov.; - **c, e:** *Mycetophila sublunata* spec. nov.; a, e, f: male genitalia, ventral view; b, c, d: dorsal lobe of gonostylus.

Male

Head dark brown. Clypeus, palpi and mouth parts yellow. Antennae dark brown. Scape, pedicel and basal flagellomere yellow. Sixth flagellomere about 1.2 times as long as wide.

Thorax: Mesonotum pruinose, mostly dark brown, humeral and posterolateral area yellow. Scutellum yellow with dark brown lateral parts. **Wing** length 3.5 mm. Wing with a distinct central spot. Preapical spot starting at C well beyond tip of R_1 , filling the apex of cell R_1 , proximal part extending back to M_1 . R with 9-10 setulae below. R_1 with 23-25 setulae below. M before rm without setulae below and above. Ratio of rm: M petiole 1.2-1.8. **Legs** mostly yellow. Apical part of hind femur dark brown. Mid tibia with 3 a, 1 ad, 6 d, 3-4 p, 3 v, first two rows of anterior setulae dark brown. Hind coxa with several posterior setae about as long as the posterior preapicals. Hind tibia with 6-8 a, 5 strong d (with 3-4 shorter erect bristles interspersed with the longer ones). Setulae of hind tibia: first anterior row dark brown, second anterior row yellow with black setulae in apical part; ventral setulae yellow except for the dark brown apical group.

Abdomen dark brown. Tergites III-V with yellow apical bands. Apical bristles of abdominal sternites not much longer than the others. Genitalia light brown.

Female

Coloration as in male. Wing length 3.1 mm. Ovipositor yellow, cerci 2-segmented.

Biology: The specimens from Primorsky Territory reared from the fruit bodies of indeterminate xylotrophic fungi belonging to Pleurotaceae.

Remarks: *M. petulca* spec. nov. is close to *M. dentata* LUNDSTROM, 1911, from which it can be separated by ventral lobe of gonostylus bearing only two black spines and by dorsolateral part of dorsal lobe of gonostylus bearing 3-4 curved spines.

***Mycetophila nemorivaga* spec. nov.**

(Fig. 1 b, f)

Material: Holotype: ♂; Russia, Kuril Is., Kunashir I., 11.vi.1977, leg. ZAITZEV (IEE).

Male

Head dark brown. Clypeus brown, palpi and mouth parts yellow. Antennae brown. Scape, pedicel and first flagellomere yellow. Sixth flagellomere about 2 times as long as wide.

Thorax: Mesonotum yellow with 3 dark brown stripes. Scutellum dark brown, with yellow median spot. **Wing** length 3.7 mm. Wing with a distinct central spot. Preapical spot pale starting at C well beyond tip of R_1 , filling the apex of cell R_1 , proximal part extending to middle of cell R_2 . R with 32 setulae below. M before rm without setulae below and above. Ratio of rm: M petiole 1.2. **Legs** mostly yellow. Hind femora with dark brown apical parts. Mid tibia with 5 a, 1 ad, 4 d, 4 p, 4 v, first two rows of anterior setulae dark brown. Hind tibia with 7 a, 4 strong d (with 2 shorter erect bristles interspersed with the longer ones), 4 p, anterior and ventral setulae dark brown.

Abdomen dark brown. Tergite III-V with narrow yellow apical bands. Apical bristles of abdominal sternites not much longer than the others. Genitalia light brown.

Female

Unknown.

Remarks: The male genitalia of *M. nemorivaga* spec. nov. are similar to those of *M. nigrofusca* DZIEDZIECKI, 1884 and *M. ornata* STEPHENS, 1829, but in *M. nemorivaga* spec. nov. the ventral lobe of gonostylus bears numerous setulae on apex.

Mycetophila scalprata spec. nov.

(Fig. 2 a,d)

Material: **Holotype:** ♂: **Russia**, Sakhalin I., Kuznetsov Cape, 21.ix.1986, leg. ZAITZEV (IEE). **Paratype:** ♂: **Russia**, Sakhalin I., Kuznetsov Cape, 19.ix.1986, leg. ZAITZEV (IEE).

Male

Head dark brown. Clypeus brown, palpi and mouth parts yellow. Antennae brown. Scape and pedicel yellow. Sixth flagellomere about 1.3 times as long as wide.

Thorax: Mesonotum pruinose, mostly dark brown, small humeral and posterolateral area yellow. Scutellum dark brown with yellow median strip. **Wing** length 3.1 mm. Wing with a distinct central spot. Preapical spot strating at C well beyond tip of R_1 , filling the apex of cell R_1 , proximal part extending M_2 . Apical part of wing darkened. R with 6 setulae below. R_1 with 20-22 setulae below. M before rm without setulae below and

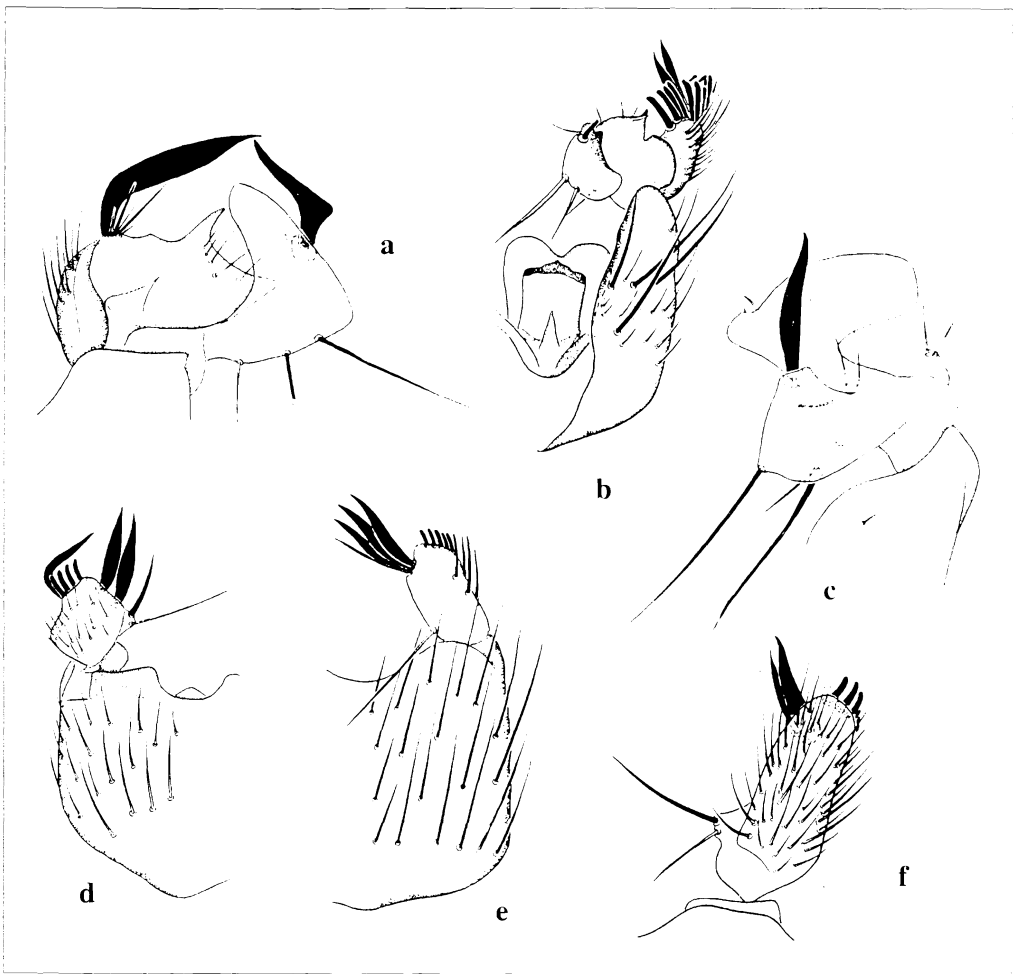


Fig. 2 a-f: Male genitalia of *Mycetophila* species. - **a, d:** *Mycetophila scalprata* spec. nov.; - **b, f:** *Mycetophila ostentanea* spec. nov.; - **c, e:** *Mycetophila filiae* spec. nov.; a, c: dorsal lobe of gonostylus; b: male genitalia, dorsal view (tergite IX removed); d, e: male genitalia, ventral view; f: dorsal lobe of gonostylus.

above. Ratio of $rm : M$ petiole 2. Legs mostly yellow. Apical part of hind femur dark brown. Mid tibia with 3 a, 1 ad, 5 d, 4 p, 3 v, first two rows of anterior setulae dark brown. Hind coxa with posterior setae short. Hind tibia with 6-7 a, 4 strong d (with 4 shorter erect bristles interspersed with the longer ones), 4 p, anterior and ventral setulae dark brown. Abdomen dark brown. Apical bristles of abdominal sternites not much longer than the others. Genitalia brown.

Female

Unknown.

Remarks: This species is closely related to *M. finlandica* EDWARDS, 1913, from which it can be separated by dorsolateral part of dorsal lobe of gonostylus bearing a strong curved spine.

Mycetophila ostentanea spec. nov.

(Fig. 2 b, f)

Material: Holotype ♂: Russia, Vologda Reg., Borok, 30.V.1984, leg. ZATZIV (HEE).

Male

Head dark brown. Clypeus brown, mouth parts yellow. Antennae brown. Scape and pedicel yellow. Sixth flagellomere about 1.2 times as long as wide.

Thorax: Mesonotum pruinose, mostly dark brown, large humeral spots and small posterolateral area yellow. Scutellum dark brown, with yellow median strip. **Wing** length 3.5 mm. Wing with a distinct central spot. Preapical spot starting at C beyond tip of R_1 , filling apex of cell R_1 . Proximal part extending to M_2 . R with 9 setulae below. R_1 with 23 setulae below. M before rm without setulae below and above. Ratio of $rm : M$ petiole 1.4. Legs mostly yellow. Mid tibia with 3 a, 1 ad, 6 d, 2 p, 3 v, first two rows of anterior setulae dark brown. Hind coxa with several posterior setae about as long as the posterior preapicals. Hind tibia with 6 a, 4 strong d (with 4 shorter erect bristles interspersed with the longer ones), 3 p, anterior and ventral setulae dark brown. Abdomen dark brown. Apical bristles of abdominal sternites not much longer than the others. Genitalia dark brown.

Female

Unknown.

Remarks: *M. ostentanea* spec. nov. is close to *M. luctuosa* MEIGEN, 1830, from which it differs in having 4 shorter d interspersed with the longer ones on the hind tibia. New species may be distinguished from *M. finlandica* by the colour of ventral setulae on the hind tibia and by the structure of the gonostylus.

Mycetophila filiae spec. nov.

(Fig. 2 c, e)

Material: Holotype ♂: Russia, Primorsky Terr., Kedrovaya Pad Res., 21.IV.1989, leg. KOMPANIZOVA (HEE).

Male

Head dark brown. Clypeus brown, palpi and mouth parts yellow. Antennae brown. Scape and pedicel yellow. Sixth flagellomere about 1.5 times as long as wide.

Thorax: Mesonotum shining, mostly dark brown, humeral and posterolateral area yellow. Scutellum yellow with dark brown lateral parts. **Wing** length 3.1 mm. Wing with a

distinct central spot. Preapical spot very pale. R with 8 setulae below. R_1 with 18 setulae below. M before *rm* with 6 setulae below. Ratio of *rm* : M petiole 2. **Legs** mostly yellow. Hind femora with dark brown apical parts. Mid tibia with 3 a, 1 ad, 6 d, 3 p, 3 v. Hind coxa with several posterior setae about as long as the posterior preapicals. Hind tibia with 7 a, 5 strong d (with 2 shorter erect bristles interspersed with the longer ones), 2 p. Setulae of hind tibia: first row of anterior setulae dark brown, second row of anterior setulae yellow; ventral setulae yellow except for a few dark brown ones apically.

Abdomen dark brown; tergites II-IV with apical yellow bands. Apical bristles of abdominal sternites not much longer than the others. Genitalia yellow.

Female

Unknown.

Remarks: This species is close to *M. dentata* LUNDSTRÖM, 1911, from which it differs in the shape of dorsal lobe of gonostylus and in the arrangement of median spines on the ventral lobe of gonostylus.

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