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Notes on the collection of fungus gnats left by the late Prof. Galina Petrovna Ostroverkhova with a new specific synonymy in the genus *Mycetophila* Meigen (Diptera: Mycetophilidae)

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The late Professor Galina Petrovna Ostroverkhova (née Plotnikova; 1935–2008), of Tomsk State University in Russia, a specialist in Sciaroidea, studied mostly the Siberian fauna of that diverse group of Diptera. She published altogether 52 papers devoted to fungus gnat taxonomy and ecology (for complete list see Babenko & Shcherbakov 2010). The most comprehensive publications were the Mycetophilidae chapter in the *Keys to Insects of the European part of the USSR* (Ostroverkhova & Stackelberg 1969) and a monograph of Siberian fungus gnats (Ostroverkhova 1979). She described about 130 new species, one new genus (*Neoclastobasis* Ostroverkhova, 1970) and one new tribe (Clastobasini Ostroverkhova, 1970) of Sciaroidea and her collection is an important source of primary information about this group in the Palaearctic Region.

The Ostroverkhova collection of fungus gnats is housed in the Department of Invertebrate Zoology of the Tomsk State University and consists exclusively of slide material of adult specimens in Canada Balsam or in gum-chloral aqueous mounting medium (= Faure's medium). Usually 3 (occasionally 2, 4 or 5) specimens are mounted per slide: wings have been detached and mounted under a cover slip leftward while the rest of the bodies are mounted under the second cover slip rightward (see also Fig. 1). Male terminalia have been detached, cleared and mounted together with the body or under a third smaller cover slip. Slides have been labelled with black ink directly on glass. Labels include information on the collecting locality, biotope and date. In the case of material reared from fungi, the fungus species and its range number are indicated. All slides in the main collection have been numbered and catalogued including information about mounted specimens on slides (there are also a small number of slides without numbers that have not been included in the main collection). Slides prepared by G.P. Ostroverkhova herself have not been personalised while those by her students have been identified with the corresponding surnames. The material derives from the Tomsk Oblast as well as from several other Siberian regions but also from the Yaroslavl Oblast and the Russian Far East. Altogether, the collection includes about 2,000 slides and can be divided chronologically into two parts:

1) The material from 1959–1971 is stored horizontally on board trays for 20 slides. The slides have been adequately arranged and labelled, especially those before 1964. However, most of the mountings from 1964 to 1971 prepared by students are of low quality. Slides up to 1969 are in Canada Balsam while Faure's medium was used later.

2) The material from 1971–1974 is stored in boxes of different sizes, where slides have been arranged vertically. These Faure's medium slides are entirely crystallised and the specimens are unfortunately irretrievable.

The systematic organization of the collection was accomplished during the second half of the 1960s, most obviously after 1967. Earlier descriptions by Ostroverkhova lack indications to corresponding slide numbers, which are present in later publications (e.g. Plotnikova 1962 versus Ostroverkhova 1970, 1979). However, type material is usually not highlighted on the slides and therefore, when the slide numbers are absent in the descriptions, the types can only be recognised by corroborating data.

In the course of the inventory of the collection, we found slides of *Fungivora tomensis* Plotnikova, 1962, study of which leads to resurrecting the species name here in this paper. In this communication we have designated the lectotype for *Mycetophila tomensis* and established a new synonymy: *M. tomensis* (Plotnikova, 1962) is found to be a senior synonym of *M. estonica* Kurina, 1992. The figures illustrating this paper, of slides including male terminalia of the lectotype, have been prepared according to the method described by Kurina (2008). The material is deposited in the entomological collection of the Tomsk State University, Russia (UTR) and at the Institute of Agricultural and Environmental Sciences, Estonian Agricultural University, Tartu, Estonia (IZBE).

Mycetophila tomensis (Plotnikova, 1962) sp. restit.

Fig. 1.

Fungivora tomensis Plotnikova, 1962: 892–893; *Mycetophila lenta* Johannsen, 1912: in Ostroverkhova 1979: 279, partim; *Mycetophila estonica* Kurina, 1992: 127, *syn. nov.*

Type material. Lectotype (by present designation; in Fig. 1 indicated by red arrows). ♂, RUSSIA, Tomsk Oblast [in UTR]. The middle specimen on slide No 215 that is equipped with handwritten labels by G.P. Ostroverkhova in black ink directly on glass as follows: “Преп. N 215” written vertically on left side (= Slide No 215); “Гр. 405” written horizontally on the upper margin of the right side (= fruit body No 405); “Fungivora tomensis из рыжика. Томск обл. Сочн. VII. 1960” written horizontally on the right side (= *Fungivora tomensis* from *Lactarius deliciosus*. Tomsk Oblast. Pine forest. vii.1960). **Paralectotypes.** 2 ♂♂, same as lectotype, upper and lower specimen on slide No 215; 3 ♂♂, same as lectotype except ix.1960, slide No 171 [in UTR]. **Holotype** of *M. estonica*. ♂, ESTONIA. Nigula NR, from *Lactarius deterrimus* collected 5.viii.1990, emerged 20.viii.1990. [on micropin, terminalia in glycerine in microvial, in IZBE]. **Paratypes** of *M. estonica*. ♂, same as holotype; ♂, ESTONIA, Saaremaa, Viidumäe NR, Audaku, from *L. deterrimus* collected 4.viii.1988, emerged 15.viii.1990; 4 ♂♂, ESTONIA, Island of Abruka, from *Lactarius deterrimus* collected 10.ix.1991, emerged 27–30.ix.1991 [all in IZBE].

Additional material studied. 3 ♀♀, same as lectotype except ix.1960, slide No 170 [in UTR].

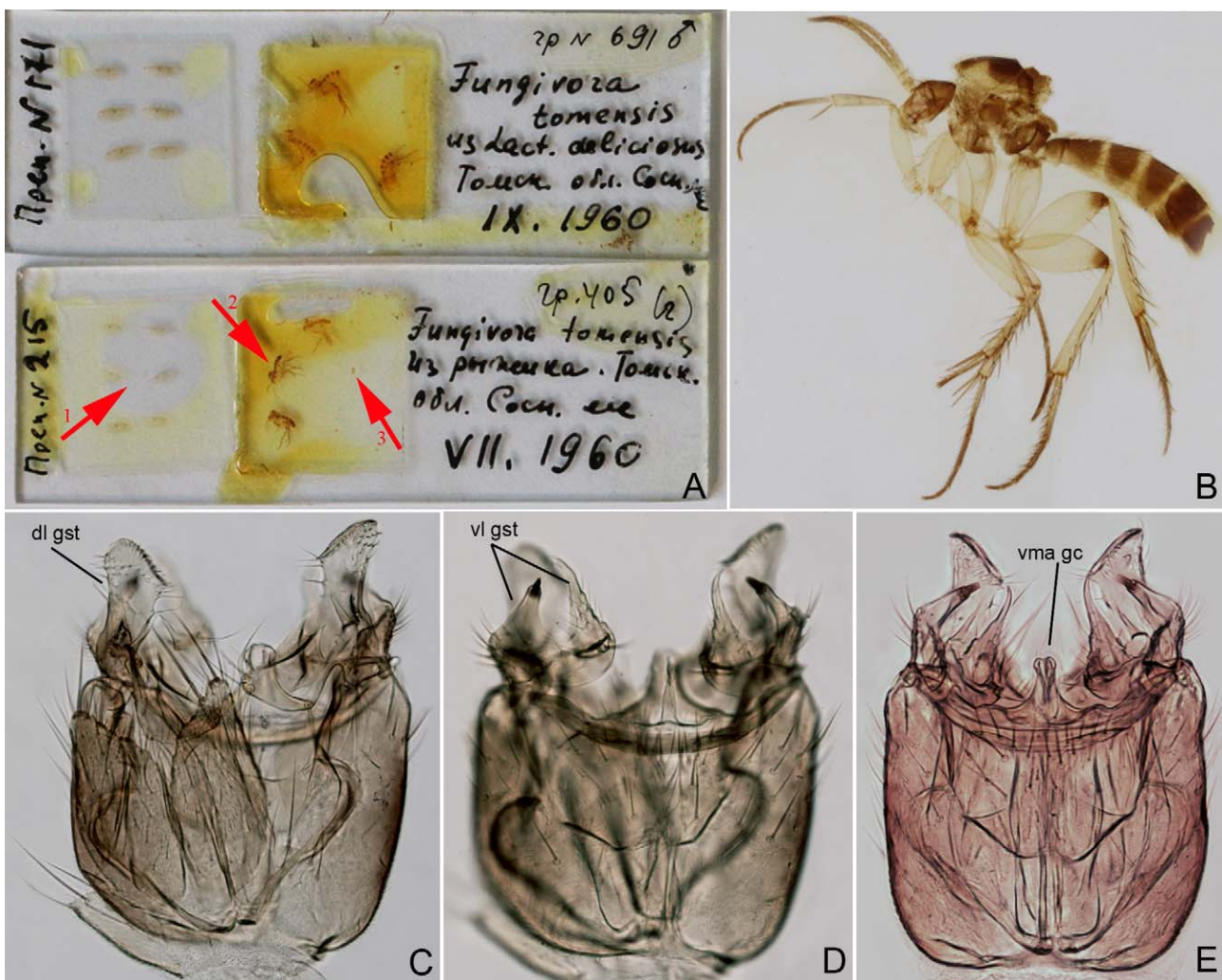


FIGURE 1. *Mycetophila tomensis* (Plotnikova, 1962). **A.** Syntype material on slides, designated lectotype is indicated by red arrows: 1, wings; 2, body; 3, terminalia. **B.** Lectotype, closer view. **C.** Male terminalia, dorsal view, focused on dorsal lobe of gonostylus (*dl gst*). **D.** Male terminalia, ventral view, focused on ventral lobe of gonostylus (*vl gst*). **E.** Male terminalia, ventral view, focused on ventromedial appendage of gonocoxite (*vma gc*).

In 1962 G.P. Ostroverkhova published a paper with the description of 10 new species of Mycetophilidae reared from macrofungi collected in 1960 in the vicinity of Tomsk (Plotnikova 1962). *Fungivora tomensis* (now in *Mycetophila*), one of the species, was described from six male specimens reared from the fruit bodies of *Lactarius deliciosus* collected in July and September. There was neither a holotype designated nor any additional information on the type material provided, except for a general note that types of the described species were deposited at the Zoological Institute of the USSR Academy and the rest of the material in the author's collection. However, when visiting the Zoological Institute in St. Petersburg in September 2012, the first author did not find any material described by Ostroverkhova. The collection of fungus gnats in Tomsk State University, on the other hand, contains 3 slides with 6 males and 3 females indicated as *M. tomensis*. The data on slides correspond exactly to these provided in the description (see Plotnikova 1962). Therefore, we are convinced that *M. tomensis* was described according to the named 6 male specimens on 2 slides (see Fig. 1). Subsequently, Ostroverkhova (1979) synonymised *M. tomensis* with *M. lenta* Johannsen, 1912. Zaitzev (2003) questioned the synonymy, taking into account the opinion by Laštovka & Matile (1974) that *M. lenta* is actually conspecific with *M. blanda* Winnertz, 1863. Our study of 15 slides with 37 male and 12 female specimens of *M. lenta* identified by Ostroverkhova confirmed the conspecificity of *M. lenta* with *M. blanda*; while examination of the type material of *M. tomensis* revealed that it is separate from *M. lenta* but conspecific with *Mycetophila estonica* Kurina, 1992. This possibility was also discussed by Zaitzev (2003) but as he could not study the type material and the figures of male terminalia in the original description of *M. tomensis* did not allow to draw any conclusion, the formal synonymy was not proposed. *Mycetophila tomensis* belongs to the *M. signata* species-group as stated by Zaitzev (1999) and, by the structure of male terminalia, is close to *M. blanda* and *M. signatoides* Dziedzicki, 1884. The male terminalia of *M. tomensis* (see Fig. 1 C–E) have been figured in detail by Kurina (1992) and Zaitzev (1999, 2003). The species is widely distributed in the Palaearctic region (Zaitzev 2003, Chandler 2011).

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