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New *Mycomya* species from South-East Asia (Diptera, Mycetophilidae)

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Abstract

Mycomya Rondani specimens from the islands of South-East Asia, i.e. Malaysia, Indonesia and the Philippines, are revised. The paper includes a key to the *Mycomya* species of the South-East Asian islands. The following six new species are described: *M. shimai* **sp. n.** from Java, Indonesia, *M. pongo* **sp. n.** from Sabah, Malaysia, and *M. apoensis* **sp. n.**, *M. nakanishii* **sp. n.**, *M. paraklossi* **sp. n.** and *M. yatai* **sp. n.** from Mindanao, the Philippines. The holotypes of *M. klossi* Edwards from Borneo, Malaysia, and *M. minutata* Edwards from Sumatra, Indonesia, were examined and their genitalia are described. *M. occultans* (Winnertz) is recorded from Java, Indonesia.

Key words: new species, Indonesia, Malaysia, Philippines, Borneo, Sumatra, Java, Mindanao, Oriental, Mycomyinae

Introduction

The taxonomy of the genus *Mycomya* Rondani, 1856 is still relatively poorly known in the Oriental region (Colless & Liepa 1973, Väisänen 1984a), especially outside the Nepalese and Burmese mountains (Väisänen 1996, 2013a, 2013c) and parts of mainland China (e.g. Wu & Yang 1994, Wu *et al.* 2001). The *Mycomya* species of South-East Asia are almost uninvestigated. This paper is a direct continuation of my previous studies on the Oriental *Mycomya* (Väisänen 1996, 2013a, 2013c), and the first contribution to the *Mycomya* species of the islands of South-East Asia since the early studies by Edwards (1931a, 1931b, 1933). He described *M. klossi* Edwards from Borneo and *M. minutata* Edwards from Sumatra. In this paper, the scattered *Mycomya* material available from Indonesia, Malaysia and the Philippines is revised. Six new species are described.

The subgeneric classification follows that of Väisänen (1984a, 2013a). Four species of the examined material belong to subgenus *Cymomya* Väisänen (i.e. *M. klossi*, *M. nakanishii* **sp. n.**, *M. paraklossi* **sp. n.** and *M. yatai* **sp. n.**), three species to the subgenus *Mycomyopsis* Väisänen (*M. apoensis* **sp. n.**, *M. minutata* and *M. pongo* **sp. n.**), two species to the subgenus *Mycomya s. str.* (*M. occultans* (Winnertz) and a species only known from females), and one species to the subgenus *Calomycomya* Väisänen (*M. shimai* **sp. n.**). While the subgenus *Mycomya s. str.*, with at least 25 species in the Himalayas (Väisänen 1996), seems to be poorly represented, the subgenus *Cymomya* with four species is comparatively well-represented on the South-East Asian islands. Only one Palaearctic, three Nearctic and one Neotropical species were included in the subgenus *Cymomya* by Väisänen (1984a). One additional species is known from China (Wu & Yang 1994), four from the Himalayas (Väisänen 2013a) and one from New Caledonia (Matile 1991).

All the material examined during this study was collected from the islands of Borneo, Java, Mindanao and Sumatra. The diversity of forests and other habitats in South-East Asia is influenced strongly by temperature and moisture gradients. Temperate genera like *Mycomya* are well represented in the cooler highlands of the Oriental region, while the dominant genera of these tropical lowlands are *Epicypta* Winnertz, *Leia* Meigen, *Exechia* Winnertz, and to a lesser degree *Neoempheria* Osten-Sacken (Colless & Liepa 1973). The holotype of *M. klossi* was collected in a lowland area, but all the other specimens examined here are from the mountains. With the exception of the widely distributed *M. occultans*, all the species are known from South East Asia only, and each of them only from one particular island, indicating a high degree of endemism. Three of the species are known from Indonesia (i.e. *M. minutata* from Sumatra, *M. occultans* and *M. shimai* from Java), three species from Malaysia (*M.*

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Description. ♂. **Head.** Palp, other mouthparts and face yellow, posterior parts of head brownish to brown. Antenna brownish to brown, scape, pedicel and base of 1st flagellomere yellow. 1st flagellomere about 2.5x its width, 2nd 2x its width. **Thorax.** Pronotum yellow, with 4 long setae. Scutum brownish to brown, anteromedial part yellowish. Anepisternum and preepisternum yellow. Scutellum brownish, with 4 long setae. Laterotergite brown. Mediotergite brown, bare. **Wing.** Length 4.3–4.5 mm. Wing hyaline, small cell and wing apex weakly infuscated. Sc ending in C distinctly distad of middle of small cell, Sc_2 ending in R_1 slightly proximad or slightly distad of middle of small cell. Apical part of Sc bearing 5–10 small setae. Small cell less than 1.5x as long as wide. Cu fork below M fork. M ratios: 1.18–1.31, 1.61–1.73. Cu ratios: 0.82–0.83, 1.32. Small setae: M petiole: 0; M_1: 0; M_2: 0; Cu petiole: 0; Cu_1: 0; Cu_2: 0. Halter yellowish, apex brown. **Legs.** Coxae and femora yellow, tibiae and tarsi brownish to brown. Coxa 2 without spur. Leg ratios: bt1:t1 = 0.93–0.97, bt2:t2 = ? (structure missing), bt3:t3 = 0.58–0.59. **Abdomen.** Tergites 1–5 brown, with yellow anterolateral spots, 6–7 brown. Sternites 1–5 yellow, 6–7 brownish. **Hypopygium.** Figs. 8A–E, yellow. Sternal lateral appendage relatively short, triangular, apically blunt, sparsely setose (Fig. 8C). Apical 1/3 of sternal synsclerite covered by long setae, some short, thin setae also along the submedian margin. Sternal submedian filament longer than sternal lateral appendage (Fig. 8B–C). Apex of aedeagus rounded (Fig. 8D). **Female.** Wing length 5.1 mm. Scutum brown with 3 yellowish longitudinal stripes. Pronotum, anepisternum and preepisternum yellow. Scutellum, laterotergite and mediotergite brown. Abdominal tergites brown with wide yelow anterior parts. Leg ratios: bt1:t1 = 0.94, bt2:t2 = ? (structure missing), bt3:t3 = 0.61. Sc with about 25 small setae. Terminalia yellow (Fig. 8F–G).

Discussion. *Mycomya yatai* belongs to the subgenus *Cymomya* (as discussed for *M. klossi* above). It is a relatively dark and large species (wing length 4.3–4.5 mm) with some wing markings similar to those in *M. klossi* and *M. paraklossi*. It differs from the other species of the subgenus in having a short, triangular, basally wide, apically blunt, sternal lateral appendage, in its sparse setosity of the sternal synsclerite, and in the presence of the sternal submedian filament, which is longer than the sternal lateral appendage (Fig. 8B–C). *M. yatai* resembles the New Caledonian *M. rufonigra* Matile (1991: fig.1), which is also a large species (wing length 4.2 mm), but differs from it in having the M and Cu veins entirely bare.

Etymology. The species is named after the Japanese entomologist, O. Yata, who collected the holotype (together with A. Nakanishi).

***Mycomya* sp.**

Material studied. MALAYSIA, Borneo, Sabah, Mt. Kinabalu, 1300 m, 9–11.XI. 1975, H. Shima, 2 ♀♀ (KUC).

Discussion. The wing length is 2.8–3.0 mm. The terminalia resemble those of Palaearctic *M. flavicollis* (Zetterstedt) and related taxa of the subgenus *Mycomya s. str.*, whereas *M. pongo,* the other *Mycomya* species known from Borneo, belongs to the subgenus *Mycomyopsis*.

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