



A new species of the shore-fly genus *Notiphila* Fallén, 1810 (Diptera: Ephydriidae) from Indonesia

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Abstract

A new shore-fly species, *Notiphila oksanae* sp.n. from Indonesia is described. The new species is similar to the Oriental species *Notiphila thaica* Krivosheina, 2010 in having many brown stripes on the thorax and in presurstyli broad in lateral view, but differs in 2 facial setae of subequal length, the absence of brown band on anepisternum and the presence of dark band on hind tibia. A key to the presently known Australasian/Oceanian species of the genus *Notiphila* Fallén, 1810 is given.

Key words: Diptera, Ephydriidae, *Notiphila*, Australasian/Oceanian, new species, description, key

Introduction

Notiphila Fallén, 1810 is one of the most species-rich, shore-fly genera (Diptera, Ephydriidae), comprising over 130 species worldwide. Within this species diversity, nearly 40 have been recorded from the Nearctic, 32 from the Palaearctic, 26 from the Afrotropical, 14 from the Neotropical, 19 from the Oriental and 4 from the Australasian/Oceanian Regions (Bock, 1988; Cogan, 1968; Krivosheina, 1998, 1999, 2001, 2003, 2010; Mathis, 1979; Mathis & Zatwarnicki, 1995).

Adults of *Notiphila* can be easily distinguished from those of other genera of Ephydriidae by the narrowed mouth opening, the structure of the wing (costal vein extended only to vein R_{4+5}), and the grey-brown body. The mode of life of *Notiphila* species is typical for shore flies: adults occur in mass in the shore zone of water bodies, slowly moving over the humid silt substrate or over parts of plants floating on the water surface; they can frequently be observed seating on stems head first. Larvae inhabit the rhizosphere, feed on detritus, breathe with oxygen of plant tissues, periodically piercing roots with a tapered spiniform spiracles (Krivosheina, 1993).

A new species of the genus *Notiphila* was found in the material collected by N. Vikhrev and O. Eremenko in Indonesia; its description is given below.

Material and methods

The descriptive terminology follows that used by Mathis & Zatwarnicki (2007). Dissections of male genitalia were performed using the method of the same authors with some exceptions: microforceps were used to remove the posterior end of the male abdomen, which was macerated in a potassium or sodium hydroxide solution. Cleared structures were rinsed in distilled water and then in 70% ethanol. Figures were made from genitalia placed to glycerin. The rest of the abdomen and genital structures were placed in a plastic microvial filled with glycerin and attached to the pin supporting the insect from which it was removed. For freshly caught specimen we used advice from Mathis & Zatwarnicki (2007) and teased open the epandrium and attached structures, thus allowing its examination and identification of the species

Discussion

Notiphila is one of the most investigated genera among Ephydriidae. The revisions of the Afrotropical (Cogan, 1968), Australian (Bock, 1988), Nearctic (Mathis, 1979), Palaearctic (Krivosheina, 1998) and Oriental faunas (Krivosheina, 2001) have been completed. However not all "old" primary types of the genus were found and investigated, resulting in some new discoveries, such as the syntypes of *Notiphila meridionalis* (Rondani, 1856) belonging to the genus *Brachydeutera* Loew, 1863 (Stuke, 2011). The fauna of the Australasian/Oceanian Region comprises four species: *N. (Agrolimna) bicornuta* Bock, 1988, *N. (Notiphila) insularis* Grimshaw, 1901, *N. (Notiphila) fuscimana* Malloch, 1925 and *N. (Notiphila) impunctata* de Meijere, 1908. Luckily genitalia of all abovementioned species were illustrated (Bock, 1988; Krivosheina, 2003). Recently no species of the genus *Notiphila* were reported from the region (Mathis & Zatwarnicki, 1995), although we think that the revision of *Notiphila* collections could change the situation significantly. The new species described herein undoubtedly differs from all known species of *Notiphila* by structures of genitalia and the number of the regional species is thus increased to five.

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