Neohemigaster Malloch, 1939 and Pterogenia Bigot, 1859 (Diptera: Platystomatidae) from eastern Eurasia, with the description of four new species

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Abstract

Four new species are described: Neohemigaster angustifrons sp.n. from Vietnam, Neohemigaster antropovi sp.n. from the Russian Far East, Neohemigaster tetralineata sp.n. from Taiwan and Pterogenia tenebrica sp.n. from Taiwan. In addition to Neohemigaster ussurica (Korneyev, 2001), six species formerly assigned to Pterogenia are transferred to Neohemigaster: Neohemigaster eurysterna (Hendel, 1914) comb. nov., Neohemigaster flavopicta (Hennig, 1940) comb. nov., Neohemigaster minuspicta (Hennig, 1940) comb. nov., Neohemigaster monticola (Frey, 1964) comb. nov., Neohemigaster ornata (Hennig, 1940) comb. nov., and Neohemigaster rectivena (Enderlein, 1924) comb. nov. A preliminary list of diagnostic characters separating the genera Pterogenia and Neohemigaster is compiled. A key to species of Pterogenia and Neohemigaster, known from Far East Russia, Japan, China, Taiwan, Vietnam and Burma, is provided.

Key words: Diptera, Platystomatidae, signal flies, Scholastinae, Neohemigaster, Pterogenia, new species

Introduction

Platystomatidae, or signal flies (McAlpine, 2001), are rather peculiar, small to large-sized flies often with pictured wings, basal cubital cell (bcu) closed by a straight or curved crossvein (Cu₂) and greyish microtrichose or, sometimes, metallic blue or green body. The family includes more than 1100 species worldwide, with the greatest occurrence of species in the Old World tropics (McAlpine, 1998). The genera Pterogenia and Neohemigaster belong to the subfamily Scholastinae. The subfamily differs from other Platystomatidae by the following combination of characters: both calypters enlarged; tergite 5 much shorter than tergite 3; female tergite 5 modified, often rudimentary or absent (in some species of Asyntona Osten Sacken, 1881 and Chaetorivellia Meijere, 1913 female tergite 5 well developed); female tergite 6 vestigial or absent (in Lenophila Guerin-Meneville 1843 this tergite developed); female sternites 3–6 well-developed, transverse; male phallus glans without apical filaments (McAlpine, 1973, 2001; Korneyev, 2001).

The genus Pterogenia Bigot, 1859 with type species Pterogenia singularis Bigot, 1859 (Indonesia: Sulawesi) (including Neohemigaster) contains 47 species found mainly in the Oriental and Australian regions; one species has been described from the Far East (Eastern Palearctic) (Steyskal, 1977; Evenhius, 1989; Korneyev, 2001; McAlpine, 2001). Neohemigaster was not distinguished from Pterogenia since it was described in 1939 until D. McAlpine (2001) redefined it and noted that many Asian species might actually belong to the first. Main papers on this genus, including identification keys, are as follows: Hendel, 1914 a, b; Frey, 1930; Malloch, 1939. Note also Bezzi, 1916; Meijere, 1916; Enderlein, 1924; Hennig, 1940; Frey, 1964, and Korneyev, 2001; McAlpine, 2001. D. McAlpine (2001) used the presence of small dorsal setulae on stem R vein (basal part of R before level of humeral crossvein) to distinguish Australasian Pterogenia species. Pterogenia share this character with Euprosopia Macquart, 1847 and with some Lamprogaster Macquart, 1843 species. Species resembling Pterogenia but with bare stem of R vein were placed by him in the genus Neohemigaster.