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

TATIANA V. GALINSKAYA<sup>1,3</sup> & ANATOLE I. SHATALKIN<sup>2</sup>

<sup>1</sup>Dept. of Entomology, Biological Faculty, Lomonosov Moscow State University; Leninskie Gory, GSP-1, korp. 12, Moscow, 119991, Russia. E-mail: nuha1313@gmail.com

<sup>2</sup>Zoological Museum of Moscow State University, Ul. Bol'shaya Nikitskaya, 6, Moscow, 125009, Russia

<sup>3</sup>Corresponding author

### 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 (Cu<sub>2</sub>) 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*.