

A new genus and species of the subtribe Thyreophorina (Diptera, Piophilidae) from Japan

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Abstract

A new genus, *Diacanthomyia* gen. nov. assigned to the subtribe Thyreophorina of the family Piophilidae is described based on a new species, *Diacanthomyia okidoi* sp. nov. recently found in Honshu and Kyushu, Japan. The new genus is somewhat similar to the European *Centrophlebomyia* of the subtribe. However, the new genus is distinguished from the known genera of the subtribe by the following combination of characters: body extensively pollinose or pruinose, 2 pairs of strong reclinate fronto-orbital bristles, 1–2 strong subvibrissal bristles in addition to 2 strong vibrissae, prosternum setose, 1 presutural dorsocentral, 1 strong anterior postsutural intra-alar, scutellum with 2 pairs of scutellar bristles without additional setulae, extensively microtrichose wing membrane, a dark round spot at r-m crossvein and a dark stripe covering m-m crossvein, and vein CuA+CuP abruptly terminated distant from wing margin. The type species inhabits evergreen broadleaved and deciduous broadleaved forests and adults appear during the cold season from December to March. Adults are attracted to decaying carcasses of Japanese deer and wild boar and traps baited with decaying pork spareribs and chicken meat with bones. The larvae of this species feed on decaying meat and marrow of deer, take less than 2 months to grow to mature larvae, and enter into diapause in the soil until autumn.

Key words: Diptera, Piophilidae, Thyreophorina, *Diacanthomyia*, new genus, *Diacanthomyia okidoi*, new species, Japan

Introduction

The subtribe Thyreophorina was known as the family Thyreophoridae until McAlpine (1977) included it in the family Piophilidae and assigned it as a subtribe of the tribe Piophilini of the subfamily Piophilinae. Cogan (1980) treated this lineage as the subfamily Thyreophorinae of the Piophilidae in the catalogue of the Afrotropical Diptera. Later, Ozerov (1989, 2000, 2004) ranked the group as the tribe Thyreophorini in the subfamily Piophilinae. So, the category of this group considerably differs among authors. In this paper I tentatively follow McAlpine (1977) ranking this taxon as subtribe. The subtribe Thyreophorina is hitherto known to include the following few species currently assigned to five genera: *Thyreophora cynophila* (Panzer, 1798) from Europe and Algeria, *Centrophlebomyia anthropophaga* (Robineau-Desvoidy, 1830) from France and Italy, *Centrophlebomyia furcata* (Fabricius, 1794) from Europe, Turkey, Israel and Algeria, *Centrophlebomyia orientalis* Hendel, 1907 from northern India (Darjeeling and Kashmir), *Centrophlebomyia grunini* (Ozerov, 1984) from the Far Eastern Russia, *Dasyphlebomyia stylata* Becker, 1914 from the Ethiopian Region, *Piophilosoma antipodum* (Osten Sacken, 1811), *Piophilosoma norrisi* (Paramonov, 1954), and *Piophilosoma palpatum* Hendel, 1917 from Australia, and *Bocainamyia necrophila* Albuquerque, 1953 and *Bocainamyia hagmannarum* Papavero, 1971 from the Neotropical Region (McAlpine 1977; Pitkin 1989; Ozerov 1984a; McAlpine 1989; Martín-Vega *et al.* 2010; Mei *et al.* 2013). The adults of most species of this subtribe appear during the cold season and their larvae breed mostly in decaying carcasses of large mammals particularly at the final stage of decay (Freidberg 1981; Ozerov 1984b; Martín-Vega & Baz 2011), as a result they are now very rare owing to shortage of such breeding sites in nature (*Centrophlebomyia* spp.: Freidberg 1981; Michelsen 1983; Cortini & Rivosecchi 1993; Mei *et al.* 2013); or once considered to be extinct but recently rediscovered in Europe (*T. cynophila*: Pape 2009; Martín-Vega *et al.* 2010; Carles-Tolrá *et al.* 2010; Martín-Vega & Baz 2011; Martín-Vega 2011; Fernández Carro 2013; Martín-Vega *et al.* 2014; *C. furcata*: Gómez-Gómez *et al.* 2008).