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A review of the genus *Dexia* Meigen in the Palearctic and Oriental Regions (Diptera: Tachinidae)

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Abstract

The Palearctic and Oriental species of the genus *Dexia* Meigen are revised. Thirty-one described species are recognized as valid, viz. *D. atripes* (Malloch), *D. basifera* Walker, *D. bivittata* Townsend, *D. caldwelli* Curran, *D. divergens* Walker, *D. extendens* Walker, *D. flavida* (Townsend), *D. flavipes* Coquillett, *D. fraseri* (Malloch), *D. fulvifera* Röder, *D. fusiformis* Walker, *D. gilva* Mesnil, *D. hainanensis* Zhang, *D. lepida* Wiedemann, *D. longipennis* (Townsend), *D. longipes* (Townsend), *D. luzonensis* (Townsend), *D. major* (Malloch), *D. maritima* Kolomiets, *D. montana* (Baranov), *D. monticola* Malloch, *D. rustica* (Fabricius), *D. seticineta* Mesnil, *D. subnuda* (Malloch), *Dexia sumatrensis* (Townsend, 1926), status nov. (originally described as *Eomyoceropsis sumatrensis* Townsend, 1926 and here removed from synonymy with *D. fulvifera*), *D. vacua* (Fallén), *D. velutina* (Mesnil), *D. ventralis* Aldrich, *D. vicina* (Mesnil), *D. violovitshi* Kolomiets and *D. vittata* (Baranov). Five species are described as new to science: *D. alticola* Zhang et Shima, **sp. nov.**, *D. chaoi* Zhang et Shima, **sp. nov.**, *D. chinensis* Zhang et Chen, **sp. nov.**, *D. kurahashii* Zhang et Shima, **sp. nov.**, and *D. tenuiforceps* Zhang et Shima, **sp. nov.** Some species are newly recorded from Japan and Southeast and South Asian countries. A key to 36 species of *Dexia* is given and 96 diagnostic figures of the male terminalia are included.

Key words: Diptera, Tachinidae, *Dexia*, new species, key, Palearctic, Oriental

Introduction

Dexia Meigen, 1826 is a large genus in the tribe Dexiini (Tachinidae: Dexiinae), and is almost exclusively distributed in the Old World (the only exception being *Dexia ventralis* Aldrich, which is present in the New World by introduction). Crosskey (1976, 1980) recognized 23 species of *Dexia* from the Oriental Region and 12 from the Afrotropical Region. The Palearctic *Dexia* were well studied by Mesnil (1980), who recognized nine species from the region. He classified *Dexia* into seven subgenera, *Scotiptera* Macquart, *Dexia* s. str., *Eomyocera* Townsend, *Sumatrodexia* Townsend, *Calotheresia* Townsend, *Eoptilodexia* Townsend and *Phasiodexia* Townsend. Among these, South American *Scotiptera* Macquart is not included in this study because it appears to have different male terminalia as discussed below; i.e., the distal membranous portion of the distiphallus is longer than the basal sclerotized portion. Guimarães (1971) and Barraclough (1992) treated *Scotiptera* as an independent genus in the Neotropical Region, because it “differs most markedly from Old World *Dexia* by having reduced ocellar setae and a black abdomen with 6 tergal spots” Barraclough (1992: 1146). Herting (1984) and Herting and Dely-Draskovits (1993) cataloged 11 species of *Dexia* from the Palearctic Region. Although Palearctic species of *Dexia* are rather well studied, a number of species have been published in scattered literature from the Oriental Region and consequently it is virtually impossible to identify *Dexia* from the entire area encompassing the Palearctic and Oriental Regions, particularly species in the eastern Palearctic and East Asia. It is therefore difficult to study the phylogenetic relationships of the Palearctic and Oriental species.

Dexia as here defined is almost the same as that of Crosskey (1976), Mesnil (1980), Barraclough (1992) and Tschorsnig and Richter (1998). The species of *Dexia* have in common a yellowish head with parafacial bare, facial carina well developed, arista plumose, second costal sector of the wing hairy ventrally, abdominal syntergite 1+2 medially excavate to posterior margin or virtually so, tergites 3 to 5 usually with discal setae, male terminalia with pregonite short and bent posteriorly, distiphallus long, sclerotized basal part longer than membranous apical part.

We examined a large number of type specimens and other specimens of *Dexia* from the Palearctic and Oriental Regions and recognized 31 previously described species from both regions. Five new species are described and some species are newly recorded from Japan, and from Southeast and South Asian countries. A key to 36 species of *Dexia* from the Palearctic and Oriental Regions is given along with species distributions and 96 diagnostic figures. We found that *D. atripes* (Malloch), *D. basifera* Walker, *D. bivittata* (Townsend), *D. divergens* Walker, *D. fulvifera* Röder, *D. fusiformis* Walker, and *D. kurahashii* Zhang et Shima **sp. nov.** are distributed in Lombok or Sulawesi (= Celebes) in Indonesia or Mindanao in the Philippines, but *Dexia* is absent from New Guinea and Pacific Islands. Our results support Barraclough’s (1992) conclusion that the eastern limit of *Dexia* appears to coincide exactly with Weber’s Line. We do not adopt the subgeneric