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A new *Loewia* Egger (Diptera: Tachinidae) from Turkey, with taxonomic and nomenclatural remarks on congeners

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Abstract

The new species *Loewia papei* sp. nov. from southern Anatolia (Turkey) is described, illustrated and compared with congeners. A brief diagnosis of *Loewia* Egger is provided and the systematics of the genus are discussed. *Loewia nudigena* Mesnil, 1972 is fixed as the type species of *Fortisia* Rondani, 1861 (junior synonym of *Loewia*). A full list of previously known valid species of *Loewia* is provided along with information on primary types, type repositories (where known), and type localities. A lectotype is designated for *Thrychogena brevifrons* Rondani, 1856 (= *Loewia brevifrons* (Rondani, 1856)).

Key words: *Loewia*, new species, nomenclature, Palaearctic, Tachinidae, taxonomy, Turkey

Introduction

The ernestiine genus *Loewia* Egger, 1856 was previously known from 16 valid species in the Palaearctic Region. With the exception of *L. latifrons* Mesnil, 1973, which seems to be restricted to the East-Palaearctic (Chita and Ussuria, cf. Ziegler & Shima 1996), all the other species are West-Palaearctic in distribution (Herting & Dely-Draskovits 1993; Ziegler 1996). The European *L. foeda* (Meigen, 1824) has also been recorded from North America (USA: New York; Canada: Ontario, Quebec) (Wood & Wheeler 1972; Wood 1987; O'Hara & Wood 2004), where it was probably accidentally introduced. Very little is known about the biology of species belonging to this genus: *Loewia foeda*, a parasite of *Lithobius* spp. (Chilopoda: Lithobiomorpha), is the only species of the genus for which host records and information on larval morphology are known in some detail (Thompson 1915). New data in behavior and ecology of *L. foeda* will be published in the next issue of the online newsletter 'The Tachinid Times' on February 2014 (Haraldseide & Tschorsnig, pers. comm., November 2013). Recently, two puparia of a *Loewia* species (probably *Loewia brevifrons* (Rondani, 1856), due to their large size [ca. 8 mm in length]) were found within the remains of an *Eupolybothrus fasciatus* (Newport) (Chilopoda: Lithobiomorpha) in central Italy (Cerretti 2010; Cerretti & Tschorsnig 2010). *Loewia* is among the very few tachinids attacking a non-insect arthropod (cf. Herting 1960; Wood & Wheeler 1972; Wood 1987).

No unique autapomorphies support *Loewia*'s monophyly, but all species share the following combination of character states that unequivocally distinguishes the genus from other tachinids: (i) male frons narrow, not exceeding one third of the width of a compound eye in dorsal view (usually distinctly narrower), (ii) male with weak, proclinate and feebly distinct inner and outer vertical setae, (iii) antenna arising at about middle of compound eye height, (iv) postpedicel short, at most 1.5 times as long as pedicel, (v) occiput mainly covered with black setulae, (vi) lower facial margin not visible in lateral view in front of vibrissal insertion, (vii) prosternum bare, (viii) preapical anterodorsal seta of fore tibia as long as, or longer than, preapical dorsal seta, (ix) preapical posteroventral seta on hind tibia about as long as preapical anteroventral seta, (x) abdomen ovoid, not laterally or dorsoventrally compressed, (xi) male intermedium scarcely developed, (xii) male cerci entirely fused medially and

Some of the characters used by Mesnil (1973) to distinguish subgenera show intraspecific variability in the material examined by us. In particular, we observed variability in the number of both posthumeral and presutural acrostichal setae with some *Fortisia* (*cretica* and *foeda*) having two and three respectively, and in the development of the excavation of syntergite 1+2, which sometimes also reaches the posterior margin in *Loewia* s. str. (i.e., *alpestris* and *setibarba*). Furthermore, Mesnil did not examine male terminalia. We conclude that his subgeneric groupings might be not monophyletic.

From our own examination of the above characters, and additionally the male terminalia and metathoracic spiracle, we can identify two main species-groups that are probably based on derived character states:

***L. setibarba*-group**—composed of *Loewia setibarba*, *L. crassipes*, and *Fortisia sensu* Mesnil (1973) and characterized by: a modified phallus that is (a) lacking an epiphallus, and (b) lacking the process of the dorsal sclerite of distiphallus. These species also have (c) the anterior and posterior lappets of the metathoracic spiracle subequal in size;

***L. brevifrons*-group**—composed of *Loewia alpestris*, *L. brevifrons* and *L. papei*, and characterized by: (a) a phallus that possesses a weakly sclerotized, well-developed epiphallus (Fig. 2D–F), (b) epiphallus that arises in dorso-submedian position with respect to the basiphallus (Fig. 2D–F), and (c) a relatively large body size of 8–11 mm in length.

Within the *L. brevifrons*-group, the species *L. brevifrons* and *L. papei* share (i) a well-developed process of the dorsal sclerite of the distiphallus (Fig. 2E–F), which is not at all developed in *L. alpestris* (Fig. 2D) or other *Loewia*, (ii) two well-developed anepimeral setae, and (iii) two or three lateral scutellar setae. We therefore consider *L. brevifrons* and *L. papei* to be sister species.

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