



Article

Revision of the European *Delia pruinosa* species group (Diptera: Anthomyiidae) feeding as larvae in seed capsules of *Silene* L. (Caryophyllaceae)

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Abstract

The European taxon *Delia pruinosa* (Zetterstedt) currently treated as one species is shown to represent a complex of several closely related species all characterized by the short antennae, enlarged proboscis with strong, black prestomal teeth and a weak tibial setation. Biologically, all members of this *Delia pruinosa* species group may share the larval habit of living in seed capsules of various species of *Silene* L. (Caryophyllaceae). The number of species recognized in both sexes is presently raised from one to four: *Delia pruinosa* (Zetterstedt, 1845), *D. judicariae* (Pokorny, 1893), *D. silenii* **sp. nov.** and *D. capdellae* **sp. nov.** It is further documented that a few more species exist within this species group, but they are so far only known from female individuals. The known distribution of the *Delia pruinosa* species group includes Europe and western Anatolia.

Key words: Diptera, Anthomyiidae, *Delia*, new species, Europe

Introduction

The large anthomyiid genus *Delia* Robineau-Desvoidy includes many species feeding as larvae on various members of the pink family (Caryophyllaceae). These species constitute a supposedly monophyletic ‘*Delia cardui* subsection’ discussed in some detail by Griffiths (1991). Within the subsection he recognized a ‘*Delia pruinosa* superspecies’ named after the European species *Delia pruinosa* (Zetterstedt, 1845), but that entity is poorly defined and its monophyly questionable according to Michelsen (2007). However, *Delia pruinosa* itself belongs to a smaller and, as substantiated below, apparently monophyletic species complex known primarily from Europe. The taxonomy of this ‘*Delia pruinosa* species group’, which has never been investigated, is subject of the present paper.

Several names have been proposed for species of the *Delia pruinosa* species group, yet the consensus among leading European specialists on anthomyiid flies has been to recognize but a single species that has changed name over time from ‘*flavidipennis* Stein, 1916’ over ‘*flavifrons* Zetterstedt, 1860’ to ‘*pruinosa* Zetterstedt, 1845’. Hennig’s (1974) treatment of this taxon, as *Delia flavifrons* (Zetterstedt), documented a remarkable variation in the shape of the male surstyli suggesting that Hennig’s concept of ‘*flavifrons*’ might include several species as noted by Ackland & Pont (1996).

Material available for study from Northwestern and Central Europe and Western Turkey made me able to distinguish between four different species recognized primarily on differences in the male terminalia. These are treated below as *Delia pruinosa* (Zetterstedt, 1845), *D. judicariae* (Pokorny, 1893), *D. silenii* **sp. nov.** and *D. capdellae* **sp. nov.** It has been possible with good confidence to associate and characterize the females of these four species. Two additional morphospecies were recognized in the female material based on characters of the oviscapt. These are briefly described but not formally named in the absence of associated males.