



## Two new European species of *Delia* Robineau-Desvoidy (Diptera: Anthomyiidae) with a bipartite male sternite III

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### Abstract

Two species within the *Delia cardui* species group were known to have males with the abdominal sternite III bipartite or very deeply incised, viz., *D. bipartita* Suwa from Japan and China and *D. polaris* Griffiths from extreme northern and high-altitude sites in North America. Two new species with this extraordinary character are described from northern Europe: *D. rimiventris* **sp. nov.** from southern Norway (Vest-Agder; Oppland) and southern Finland (Regio aboensis; Karelia australis) and *D. bipartitoides* **sp. nov.** from northern Sweden (Norrbotten). Further records of the latter species from Mongolia and Russia (Yakutia) are given. A discussion and redefinition of the *Delia cardui* species group and a key to male *Delia* with a divided sternite III are given.

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

### Introduction

*Delia* Robineau-Desvoidy, with several hundred described species, appears to be the largest genus within Anthomyiidae. It is mainly occurring in the cooler parts of the Northern Hemisphere. A monograph of the Palaearctic species, although with a strong European bias, was given by Hennig (1974a, b, c), and a comparable treatment of the Nearctic species came more recently (Griffiths 1991a, b, 1992, 1993). Important taxonomic and faunistic work on *Delia* has further taken place in Japan (Suwa 1999 and references therein) and China (e.g., Wei *et al.* 1999). Still, as shown by Michelsen (2007), there is a need for more alpha-taxonomic work on this diverse genus even within Europe.

The present paper considers two new European species of *Delia* that notably have the male sternite III divided into a pair of flipper-like lobes (Figs. 4–5), a specialized condition found elsewhere only in the eastern Palaearctic *Delia bipartita* Suwa (Suwa 1974, 1977; Feng *et al.* 1984) and to a lesser extent in the Nearctic *D. polaris* Griffiths (Griffiths 1991a). The new species are *Delia rimiventris* **sp. nov.** found in Norway and Finland and *D. bipartitoides* **sp. nov.** found in Sweden, Mongolia and Yakutia. As discussed below, the four species just mentioned all belong to the *Delia cardui* species group on account of a modification of the male mid tarsus.

### Methods

**Illustrations.** Photographic illustrations were made with a Leica DC300 digital camera mounted on a Leica MZ16A stereomicroscope. Auto-Montage Pro software from Syncroscopy was used for image-stacking and