Zootaxa 2299: 29–43 (2009)
www.mapress.com/zootaxa/

Article

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

Taxonomic revision of the *Pegomya meridiana* species group (Diptera: Anthomyiidae) including natural enemies of invasive *Hypericum* spp. (Clusiaceae)

VERNER MICHELSEN
Zoological Museum, Natural History Museum of Denmark, University of Copenhagen, Denmark & Museum of Zoology, Lund University, Sweden. E-mail: vmichelsen@snm.ku.dk.

Abstract

The *Pegomya meridiana* species group is established for three Palaearctic species that supposedly all as larvae attack seed-capsules of *Hypericum* spp. (Clusiaceae). *Pegomya meridiana* (Villeneuve) and *P. provecta* (Villeneuve) are widespread Eurasian species, while the third species, *P. canariensis* Michelsen, is endemic to the western Canary Islands. Synapomorphies for the *Pegomya meridiana* species group are most evident in the females: A laterally compressed oviscapt with blade-shaped cerci and a unique forward displacement of spiracles VI onto tergite V. Both sexes of *P. provecta* and *P. canariensis* are further lacking abdominal spiracles VII, a character state not previously reported from Anthomyiidae. An equally novel character state is the fusion of the cercal tips seen in female *P. canariensis*. The taxonomic part includes illustrated descriptions, specimen records, notes on distribution and biology, and an identification key to males and females. Females of *P. provecta* and *P. canariensis* are described for the first time. *Hypericum perforatum* L. and *H. canariense* L. are known as invasive weeds outside their natural ranges, and it is pointed out that species of the *P. meridiana* species group might be useful in the control of alien populations of these plants through their seed-feeding larvae.

Key words: Diptera, Anthomyiidae, *Pegomya*, Palaearctic Region, biological control, *Hypericum*

Introduction

Pegomya canariensis, an anthomyiid fly endemic to the Canary Islands, was described by the present author *in* Michelsen & Báez (1985) based on some males from the western islands Tenerife and Hierro. It was suggested, from similarities in the male terminalia, that *P. canariensis* is most closely related to *P. provecta* (Villeneuve, 1923) and *P. meridiana* (Villeneuve, 1923), these two species then known from Europe only. Females and larval habits were not known for *P. canariensis* and *P. provecta*, while the female of *P. meridiana*, described by Villeneuve (1923) and redescribed by Hennig (1973b), is remarkable for a European species of *Pegomya* Robineau-Desvoidy in having the distal segments of the oviscapt laterally compressed, making the cerci and adjoining apical sclerites pointed and sharp-edged – not unlike conditions seen in the anthomyiid genera *Phorbia* Robineau-Desvoidy and *Acklandia* Hennig. Collin (1947) reported that British *P. meridiana* had been reared from larvae attacking the floral parts of *Hypericum perforatum* L. (Clusiaceae). *Pegomya meridiana* was subsequently recorded from Japan (Suwa 1986) and many places in Europe (Michelsen 2004). Presently, the known distributions of *P. provecta* and *P. meridiana* even include the Near East (Turkey) and Central Asia.

It was my finding of the previously unknown female of *Pegomya canariensis* on La Gomera, one of the western Canary Islands, in January–February 2008 that impelled me to write the present article. As females of *P. provecta* were already available for study in the ZMUC collection of Anthomyiidae, it was now possible to

Accepted by J. O'Hara: 3 Nov. 2009; published: 27 Nov. 2009