

Article



A revision of the genus Rosapha Walker (Diptera: Stratiomyidae)

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Abstract

The species of *Rosapha* Walker, 1859 are revised and the monotypic genus *Rosaphula* Frey, 1934 is proposed as a new synonym of *Rosapha*. Eleven species of *Rosapha* are distinguished and four of them, *R. brevispinosa* **sp. nov.** from Laos and Thailand, *R. flavipes* **sp. nov.** and *R. stigmatica* **sp. nov.** from Thailand, and *R. flavistigmatica* **sp. nov.** from India and Malaysia, are described as new. *Rosapha bicolor* Bigot, 1877 is proposed as a synonym of *R. habilis* Walker, 1859 on the basis of type comparison. The males of *R. handschini* (Frey, 1934), *R. obscurata* de Meijere, 1916, and *R. variegata* de Meijere, 1919, are described for the first time. The distribution of ten species is probably confined to the Oriental Region but *R. umbripennis* Lindner, 1957, was described from New Guinea. *Rosapha bimaculata* Wulp in de Meijere, 1904, was newly recorded from India, Laos, Malaysia, Thailand and Vietnam, *R. flagellicornis* Enderlein, 1914, from Malaysia, *R. obscurata* from the Philippines and Thailand, and *R. variegata* from Indonesia (Sumatra), Malaysia, the Philippines, Thailand and Vietnam. A key to the *Rosapha* species is presented.

Key words: New species, new synonyms, new combination, new records, variation, distribution, identification key, habitat, Pachygastrinae

Introduction

Seven species of Rosapha Walker, 6 Oriental and 1 Australasian, are listed in the world catalog by Woodley (2001). The genus Rosapha is characterised by the shape of the third antennal segment (flagellum) with long and haired or flattened apical style (1), four marginal scutellar spines (2), well developed crossvein R-M (3), vein R_{2+3} arising beyond the anterior crossvein (4), presence of vein R_4 (5), and a mostly elongated, dorsally flattened abdomen (6). However, the abdomen is relatively short and clavate in R. stigmatica sp. nov., and almost rounded and fairly convex in R. obscurata de Meijere. The shape of the antenna resembles that of the Oriental genus Burmabrithes Lindner, the Palaearctic genus Maackiana Krivosheina, the Australasian genus Saldubella Kertész and the Palaeotropical genus Tinda Walker.

In all these genera the flagellum consists of a suboval to conical basal part composed of often closely appressed 5–6 flagellomeres and an apical style formed from two flagellomeres. The penultimate flagellomere is very short, but the last flagellomere is usually at least as long as the rest of the whole antenna. The species of *Saldubella* differ from all the other mentioned genera by having vein R₂₊₃ arising far before the crossvein r-m. *Burmabrithes* and *Maackiana* are genera with a markedly short and convex abdomen. The Australasian and Afrotropical genus *Lophoteles*, which is related to *Saldubella*, differs by having an almost round basal part of the flagellum (James 1977) and *Tinda* (Afrotropical, Australian and Oriental) has the anterior crossvein (r-m) absent. The Oriental genera of Pachygastrinae with an elongate and relatively slender abdomen were keyed out by Yang & Yang (2010).

In the current study, based on type and other specimens from 17 institutions, we revise the genus *Rosapha*, describe 4 new species, describe males of 3 species for the first time, provide a key to permit identification of all 11 species, present distribution maps covering each species, and provide information on larval habitat.