Vitilevumyia, an enigmatic new genus of Stratiomyidae from Fiji (Diptera)

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Abstract

A new genus and species of Stratiomyidae (Diptera), Vitilevumyia bobwoodleyi gen. et sp. nov., is described from the island of Viti Levu, Fiji. It exhibits an unusual combination of character states, but is tentatively placed in the tribe Proso-pochrysini of the subfamily Stratiomyinae.

Key words: Diptera, Stratiomyidae, Vitilevumyia, new genus, new species, Viti Levu, Fiji

Introduction

Stratiomyidae of Fiji are moderately well known due to the work of Bezzi (1928), who provided a substantial review of the brachycerous Diptera of Fiji known at that time. There has been no subsequent work on Stratiomyidae of that archipelago since Bezzi’s treatment. Bezzi recorded twelve genera of stratiomyids from Fiji, five of which are endemic, and 21 species, 18 of which are endemic. Of the three species that occur beyond Fiji, all are only on other islands of the Oceanian Region. Clearly the rate of species endemism in the Fiji archipelago is high. Because of the isolated nature of the Fijian fauna and its potential for endemism, a new, comprehensive survey, using primarily Malaise traps, was undertaken (Evenhuis & Bickel 2005). Among the hundreds of stratiomyids collected during that survey were four specimens of an unusual new genus that is described here. Material is deposited in the Bernice P. Bishop Museum, Honolulu, Hawaii, USA (BPBM) and the Department of Entomology, Smithsonian Institution, Washington, DC, USA (USNM).

Taxonomy

Vitilevumyia gen. nov.

Type species, Vitilevumyia bobwoodleyi sp. nov., by present designation.

Diagnosis. The combination of the following characters will distinguish Vitilevumyia gen. nov. from all other known Stratiomyidae: elongate antennal flagellum with six undifferentiated flagellomeres; scutum and scutellum with unusual punctures each with a small internal tubercle (Figs 1–2); unarmed scutellum; very small, triangular wing cell r1; crossvein dm-cu absent, thus vein CuA1 forming the posterior segment of the discal cell. The form of the thoracic punctation and the reduced cell r1 are apparently autapomorphic for the genus.

Description. Male. Head slightly narrower than thorax in dorsal view (Fig. 1; female). Eyes dichoptic, upper frons nearly parallel-sided with ocellar tubercle slightly prominent; lower frons very short, transverse sulcus only visible laterally; narrow groove present between antennal bases, extending slightly onto face; face with margins slightly diverging ventrally, receding, with very narrow groove next to eye margin. Gena narrowly visible in lateral view, contiguous with similar postgena, merging evenly with postocciput, which becomes wider toward vertex. Eye large, ommatidia of uniform size, essentially bare with only minute, extremely sparse microtrichia visible only