

A NEW SPECIES OF BRUCHOMYINE FLY FROM ECUADOR (DIPTERA:PSYCHODIDAE)¹

Charles P. Alexander²

The unusually interesting subfamily Bruchomyiinae of the dipterous family Psychodidae has attracted considerable attention in recent years. At this time I am describing a further new species of the oldest genus in the subfamily, *Nemopalpus* Macquart (1838). I also include a list of the 17 species presently known from the New World as well as a list of the more important references. The two other genera in the subfamily are *Bruchomyia* Alexander, 1920, with 8 species presently recorded from the New World, all restricted to South America. (Fairchild, 1952: 276) and the very distinct *Tonnoiromyia* Alexander) 1940, from Tropical Africa, known by a single species that has the greatest number of antennal segments, 113, presently known in the entire order Diptera.

The following species of New World *Nemopalpus* are known:

- antillarum* Fairchild, 1952 - Hispaniola.
- arroyoi* de Leon, 1950 - Guatemala.
- brevinervis* Barretto and d'Andretta, 1946 - Brasil (São Paulo).
- dampfianus* Alexander, 1940 - Mexico.
- dissimilis* Barretto and d'Andretta, 1946 - Brasil (São Paulo).
- immaculatus* Freeman, 1949 - Brasil (Santa Catharina).
- maculipennis* Barretto and d'Andretta. 1946 - Brasil (a synonym of *pilipes* Tonnoir).
- mopani* de Leon, 1950 - Guatemala.
- moralesi* de Leon, 1950 - Guatemala.
- multisetosus* Alexander, sp.n., in present paper - Ecuador.
- nearcticus* Young, 1974 - United States (northern Florida).
- pallipes* (Shannon and Del Ponte), 1927 - Argentina. (in *Bruchomyia*).
- pilipes* Tonnoir, 1922 - Paraguay.
- sziladyi* Tonnoir, 1940 - Costa Rica.
- torrealbai* Ortiz, 1963 - Venezuela.
- vexans* Alexander, 1940 - Brasil (Rio de Janeiro) - possible synonym of *pilipes*.
- yucatanensis* Vargas and Najera, 1958 - Mexico.

Nemopalpus multisetosus sp.n.

Size small (wing of male 3.2 mm.); general coloration of body brown; antenna of male very

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²Contribution from the Department of Entomology, University of Massachusetts, Amherst, Mass.

long (about 5 mm.), flagellar segments elongate-cylindrical, with very abundant long delicate setae over their entire lengths, these curved, directed outwardly, the tips inward; wings with cell *R*₅ short; male hypopygium with the dististyle broadbased, expanded outwardly, the inner angle extended into a long narrow blade, outer angle with a shorter acute spinelike point.

Male. - Length about 4mm.; wing 3.2 mm.; antenna about 5 mm.

Rostrum brown; palpi light brown, terminal segment elongate, subequal to the combined three proximal ones. Antennae (Fig. 1) distinctive; elongate, about one-half longer than the wing; flagellar segments elongate-cylindrical, the outer ones progressively shorter and more slender; each segment with abundant very long setae over their entire lengths, all of these very delicate filaments directed outwardly, their apices curved slightly inwards, as shown. Head brown; eyes large; vertex narrow.

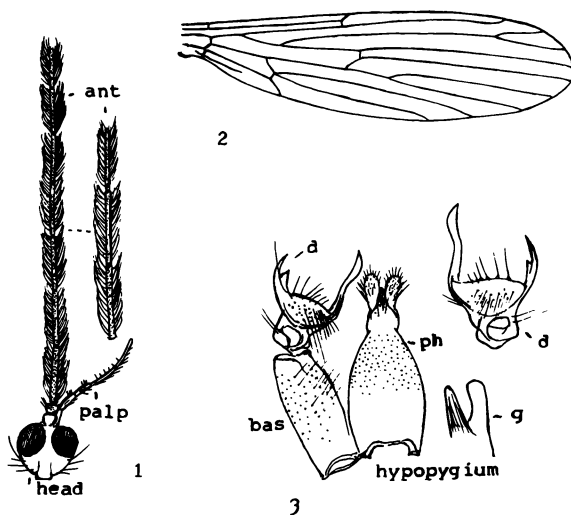


Fig. 1. Head and antenna of male; showing the basal nine segments of antenna and enlargements.

Fig. 2. Wing venation.

Fig. 3. Male hypopygium; details of structure.

Symbols: bas - basistyle
 d - dististyle
 g - gonapophysis
 ph - phallosome.

Thorax almost uniformly medium brown; notum with very abundant long erect pale setae; pleura slightly paler and more glabrous. Halteres dark brown, stem with yellow setae. Legs with coxae and trochanters yellow; femora yellowed basally, slightly darker outwardly, tibiae and tarsi yellowed; claws very small, simple. Wings (Fig. 2) slightly darkened; veins brown. with very abundant long brown trichiae, costal fringe longer. Venation as shown; cell R₃ short.

Abdomen brown. Male hypopygium as shown (Fig. 3); dististyles, d. and phallosome, p. distinctive, structure as shown.

Holotype, ♂, Pompeya, Ecuador, May 1965 (L.E. Peña).

The most similar described species appears to be *Nemopalpus sziladyi* Tonnoir, from Costa Rica, later reported from Panama by Fairchild (1952) who provides figures of the male hypopygium (Ann. Ent. Soc. America, 45: 271, figs. 27-29; 1952). Additional to the hypopygial differences, the male antenna of the present fly is quite remarkable and distinctive, as described and figured, the abundant distinctive vestiture of the flagellar segments having suggested the specific name.

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*The papers by Fairchild (1952) and Young (1974) are of particular interest and value in the present study.