

NEW DATA ON SABETHINI

(DIPTERA, CULICIDAE)¹

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The junior author collected the material studied in this note in the southwestern corner of the State of S. Paulo, near the banks of the Paranapanema river. Some larvae were found in bromeliads and brought to our laboratory for study. From these larvae one new species of *Phoniomyia* and interesting variant specimens of *Wyeomyia* (*Wyeomyia*) *aphobema* Dyar, 1928, were reared and are the subject of this paper.

We take this opportunity to thank Dr. N. L. Cerqueira of the Serviço Nacional de Febre Amarela, Rio de Janeiro, Brasil for the criticism of this paper. The illustrations were made by Mr. E. B. Ferraz.

Phoniomyia diabolica, new species

Male.—Head: Proboscis slightly longer than fore femur, curved, dark brown. Palpus slightly longer than clypeus, dark brown. Clypeus white pruinose. Antenna one third as long as proboscis, very slightly plumose. Occiput with brown scales except for a violaceous spot at vertex and silvery ones on mentum.

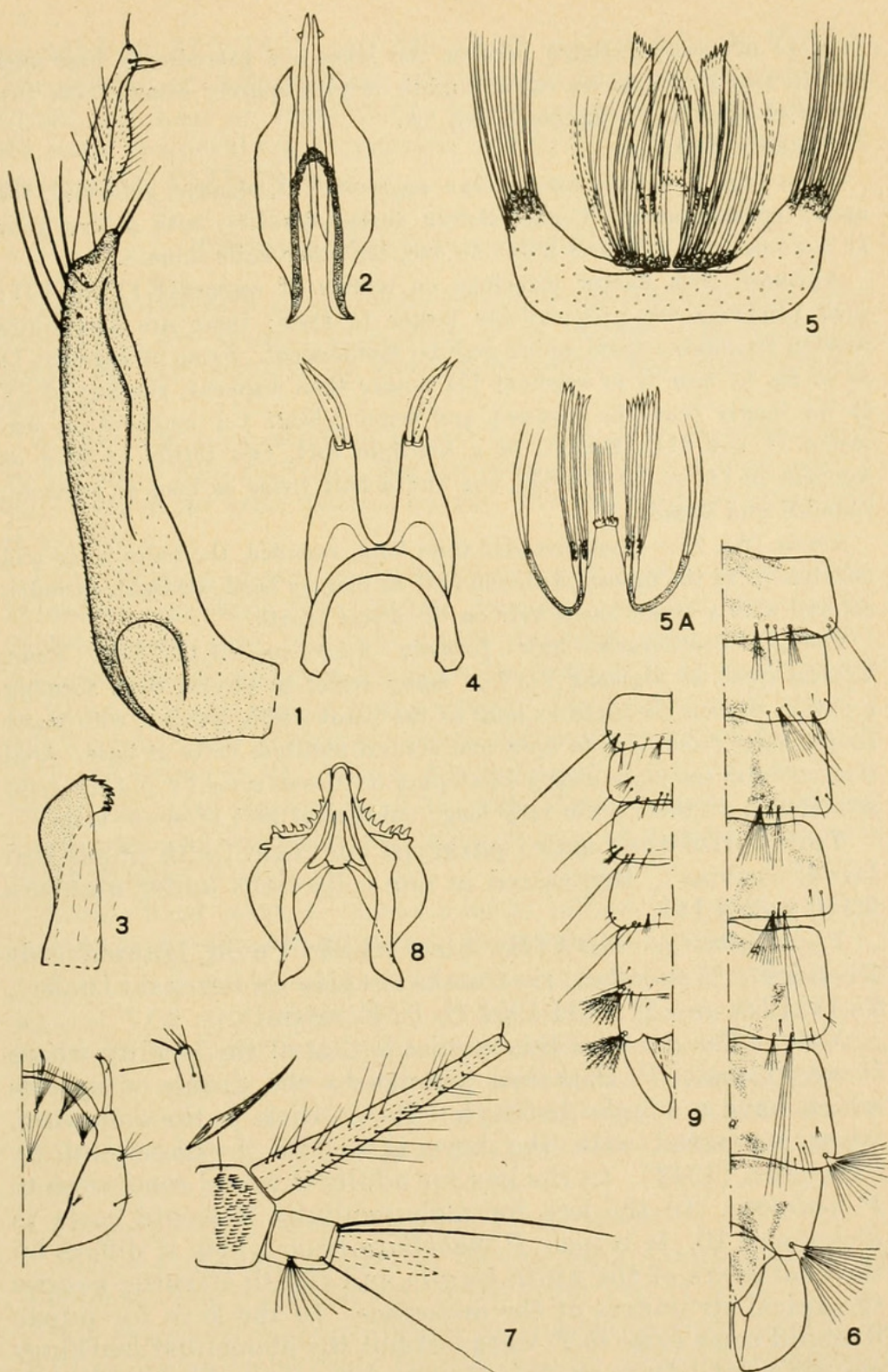
Thorax.—Pronotal lobe violaceous on top and with yellowish scales below. Mesonotum with dark brown integument and bronzy scales. Scutellum silvery scaled on mid lobe. Pleurae with silvery scales.

Legs.—Femora dark brown, the fore one and mid one with a stripe of white scales from base to apex, the hind one with white scales only at base. Tibiae dark, the mid one with a stripe of white scales from base to apex, the hind one with the white scales scattered and not forming a stripe. Fore tarsi dark; mid tarsi dark but with a continuous white line of silvery scales from I to apex of IV, the white nearly forming a complete band on these segments, V blackish and thickened; hind tarsi dark but IV and V white on one side except at apex.

Abdomen blackish on top; whitish below; the colours apparently separated on the sides in an undulated line.

Genitalia (fig. 1).—Basistyle three times as long as wide, slightly setose at apex and on external margin, Dististyle half as long as basistyle, thickened in the middle where it is setose and bears three short, curved differentiated setae. Mesosome (fig. 2) large, elongate with a double filament in the middle and two broad, outcurved lateral structures. Tenth sternite (fig. 3) high and ending in seven teeth. Ninth tergite

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Phoniomyia diabolica: fig. 1, basistyle and dististyle, side view; fig. 2, mesosome; fig. 3, tenth sternite; fig. 4, ninth tergite; fig. 5, eighth tergite, first series of setae; fig. 5A, eighth tergite, second series of setae; fig. 6, abdominal segments II to apex of pupal exuvia; fig. 7, head and terminal segments of larva. *Wyeomyia (Wyeomyia) aphobema* Dyar, 1918: fig. 8, mesosome; fig. 9, abdominal segments III to apex of pupal exuvia. All drawings made with the camera lucida.

(fig. 4) of peculiar shape because the lobes are exceedingly high and end in two broad leaves each. Eighth tergite densely setose, with two series of setae as in figures 5 and 5A.

Female.—Unknown.

Pupa (fig. 6).—Tube longer than segment VII, slender, yellowish, the apical opening small. Cephalothorax darker dorsally, with a long four or five branched tuft and a double one, the other hairs minute.

Abdomen with darker markings on middle of segments IV to VII; such markings are progressively larger to apex; there are also white median triangular spots which may be luminescent. Setae of segment II as in fig. 5; hair B of segment III longer than segment, simple; of IV to VI longer than the segment and triple. Hair C.1 multiple on segments II and III. Hair C in a multiple tuft, two thirds as long as segment in III to VI. Paddle one and a half times as long as segment, rounded and broad.

Larva (fig. 7).—Head broader than long, rounded, the hairs large and multiple as in the figure. Antenna half as long as head, straight, cylindrical and with a single small hair on the distal fourth.

Thorax.—Prothoracic hair formula 1.1.3—m—1.1.1. Skin nude. Lateral comb of segment VIII of many scales in several rows forming a patch. Siphon six times as long as the basal width, slender, with many simple hairs from base to apex and several multiple tufts at base. Anal segment with the plate nearly enveloping it; dorsal setae (1 + 1); lateral seta single, all these setae very long; subventral tuft of seven hairs.

Type.—Holotype male; paratype one male (with pupal and larval exuviae). Registered in our collections under numbers 9.110 and 9.140.

Type locality.—BRASIL, State of São Paulo, Município de Presidente Wenceslau, rio Cuiabá (região da Serra do Diabo), 25.IV.1951 and 17.VIII.1951 O. P. Forattini).

Note.—The name of this species is that of the locality where it was found. *P. diabolica* belongs to the group of species which have a simple dististyle. Its position is the following, when compared with the keys given by J. Lane and N. Cerqueira (1942). In the key for adults it would come close to *P. palmata*. In the key for male genitalia it would come to dichotomy 10. It is near *P. flabellata* from which it differs by the characters of the ninth tergite and eighth sternite, besides the apical structures of the mesosome. In the keys for pupae it would come close to *P. antunesi* but the abdominal markings are different. As to the larval characters it would fall close to *P. fuscipes*.

Bionomics.—The specimens were found in water held by epiphytic bromeliads as larvae. The first at 2 meters from ground level and inside a forest. The temperature of the water at time of capture was 19° C. At room temperature it

pupated in 11.V.1951 and the adult emerged in 18.V.1951. The second in a bromeliad growing on the ground inside a forest. At time of capture the water temperature was 6° C. At room temperature it pupated in 12.IX.1951 and the adult emerged in 19.IX.1951.

Wyeomyia (Wyeomyia) aphobema Dyar

The studies of a small series of specimens showed that they vary from the typical form to a large extent. The variation found in our material is mentioned below and the pupa described.

Adults.—The white markings on mid tarsi vary from segment I to V on one side. Male genitalia: The mesosome (fig. 8) has from none to eight teeth on the upper external margin. They are progressively smaller to apex.

Pupa.—Slightly darker on cephalothorax and in the middle of the abdominal segments. Tube slightly expanded at apex and slender. Cephalothoracic hairs two, both double and long, other hairs minute. Abdomen (fig. 9) with hair B longer than segment in II to VI, in III to VI nearly twice as long as the segment. Other setae small except C which is nearly half as long as segment and multiple in II to IV, simple in V and double in VI. Tuft A developed and as long as segment in VII, longer than segment in VIII, with fifteen to twenty branches. Paddle long and one and a half times as long as segment VIII, with minute spicules at apex.

Larva.—Head rounded. Antenna small, uniform and with a single small hairs at base of distal fourth. Head hairs as in figure.

Body nude. Prothoracic hair formula 2.1.1.—m—1.1.1? Pecten of segment VIII with several rows of free scales. Siphon elongate and five to six times the basal width; false pecten on basal three fourths, with many single or double setae over whole siphon. Anal segment with plate well down on the ventral portion; dorsal setae (1+1); lateral hair single and feathered, all these hairs long; subventral tuft of six pennate and long hairs.

Locality.—The same as that of *P. diabolica*.

Note.—Collected as larvae in the same bromeliad as *P. diabolica*. The pupal period varied from 7 to 11 days.

We examined male genitalias of specimens from several localities. Seven males from British Guiana, Georgetown showed six specimens devoid on lateral teeth on mesosome and one with six teeth on each side; one male from Brasil, Goiáz, Anapolis showed eight teeth on each side of the mesosome; two specimens from S. Paulo, S. do Diabo showed respectively three and eight teeth on each side of mesosome.



1952. "New data on Sabethini (Diptera, Culicidae)." *Proceedings of the Entomological Society of Washington* 54, 254–257.

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