

♂ and 138 ♀, while another operated for 76 nights during the same period in the large laboratory clearing yielded 19 ♂ and 52 ♀ specimens.

Culex (Lophoceraomyia) digoelensis Brug

Culex (Lophoceraomyia) digoelensis Brug, 1932, Bull. Ent. Res. 23: 81-82. Female and male described from Upper Digoel River, South New Guinea.

This species was described as having the pleurae all black, abdomen and legs with dark brown scales only, male palpi about one-third longer than the length of the proboscis, and the antennal ornamentation as in *C. (L.) infantulus* Edwards, 1921. The description of the genitalia was as follows: "Hypopygium differing from that of *C. (L.) infantulus* as described by Edwards (Ind. J. Med. Res., X, 1921, p. 287) by having tubercular, not spinose, lobes on the mesosome, with rounded tips; moreover the 10th sternite has no membranous projection, but one stout spine, three smaller but well developed spines and three minor spines; the bases of the lobes of the mesosome with a medially directed hook." In the original brief description of *infantulus*, however, Edwards stated that the mesosome had a tubercular surface so it appears that Brug must have intended to say that *digoelensis* had spinose, not tubercular, lobes. A specimen collected by us in a light trap at Hollandia on January 19, 1945, has a rounded spinose apex on the lateral plate of the mesosome and in view of the above supposition was identified as *digoelensis* since the other characters agree with Brug's brief description. Segment 8 of the antenna has two short bristles, and segment 9 three long bristles closely appressed, which agree with Edward's description of *infantulus*. Drawings of the antennal and genitalic characters of our specimens are shown in fig. 5, since illustrations of the species have not previously been published.

ADDITIONAL DATA ON SABETHINI

(DIPTERA, CULICIDAE)

By J. LANE¹ and O. R. CAUSEY²

When we had the opportunity of studying a collection of Sabethini made in Passos, State of Minas Gerais, Brazil, during the years 1946 to 1949, hitherto undescribed males, pupae, and larvae of five known species were encountered. These are described in the present paper. The material on

¹ From Departamento de Parasitologia, Faculdade de Higiene Saúde Pública da Universidade de São Paulo, Brazil.

² Division of Medicine and Public Health, Rockefeller Foundation, Rio de Janeiro, Brazil.

which these descriptions are based was collected in the course of epidemiological field studies on sylvan yellow fever in Ilhéus, Bahia, and Passos, Minas Gerais. These studies were made under the auspices of the International Health Division of the Rockefeller Foundation and the Ministry of Education and Health of Brazil.

Wyeomyia (Davismyia) petrocchia (Shannon & Del Ponte, 1927)

Figs. 1, 2, 3

The material studied comprises ten males, three pupal exuviae and two larval skins.

The larva of this species is, due to the hypertrophied maxilla, in a group with *W. confusa* (Lutz). In the key given by Lane (1953) it should be placed in a separate dichotomy together with *W. confusa*.

Male.—Similar to the female except for the following characters: Proboscis ventrally white on basal two-thirds, more so in the middle; palpus slender; antenna with slightly denser plumosity than in female. Mesonotum with reddish-green, metallic sheen; legs dark, femora yellow on whole length ventrally; tarsi dark, scales lighter coppery ventrally on fore and mid pairs; tarsi IV and V of mid pair thickened and differentiated; claw simple.

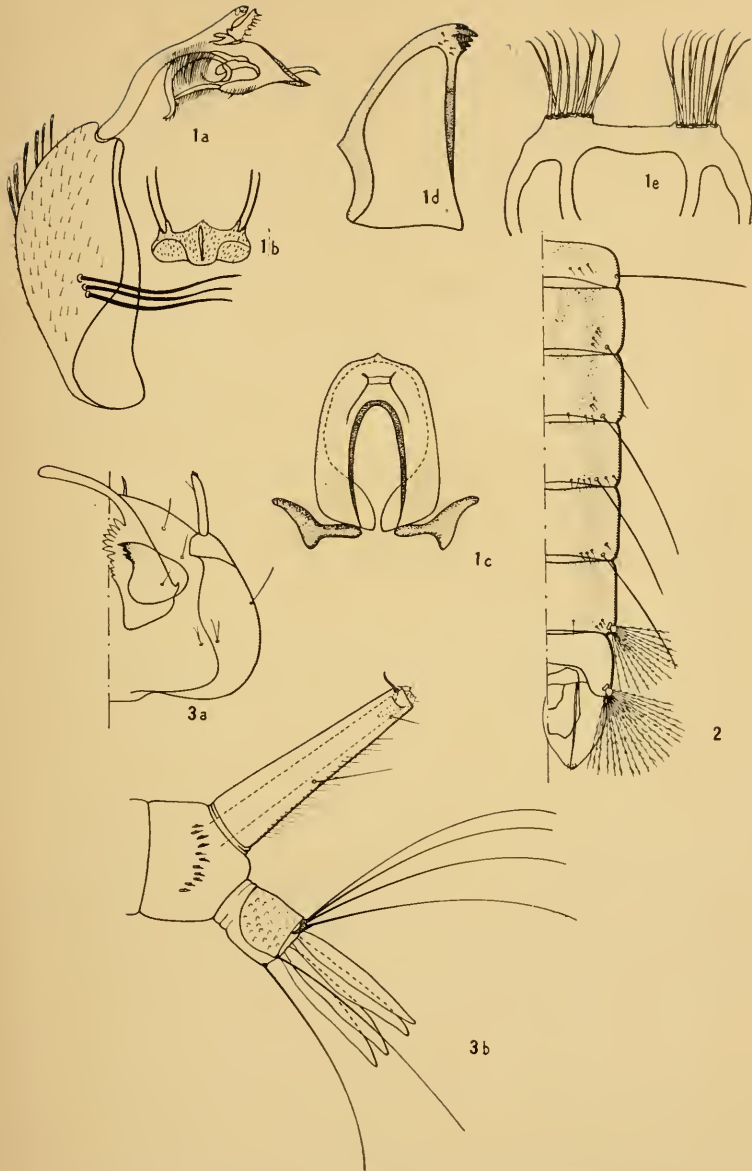
Genitalia, fig. 1: Basistyle twice as long as broad, attenuated apically, with three long setae placed close together in the middle and diagonally; middle plate spiculose, with two lateral setae inserted on mamillate protuberances; dististyle with slender, curved stem and complex lobes at apex, as shown in the figure. Tenth sternite with three larger and two smaller apical teeth and a few spicules. Mesosome ovate, the anterior opening large. Ninth tergites with the interlobar space broad, plane, each lobe with a double row of nine or ten setae which are curved outwards.

Pupa.—Tube short, slightly expanded at base. Cephalothoracic hairs with an everage triple seta and a long double one, the others short.

Abdomen, fig. 2: Darker in the middle. Hairs A of segment II and B of segments IV to VI nearly twice as long as respective segments. Hair B of III shorter or longer than the length of segment. Tuft A of VII definitely smaller than that of VIII, both black. Paddle one and a half times the length of segment VIII, rounded and coarsely spiculose at apex.

Larva.—Fig. 3. Head broader than long, hairs short, simple except occipitals which are double. Antenna short, with a small single hair at the distal third. Maxilla hypertrophied, as long as head, with a slender long apical horn which is thickened at apex; internally with rows of teeth, as in fig. 3.

Body nude, hairs long. Prothoracic formula m.m.l.m. (all small), m.l.m. (all stout and long. Pecten of segment VIII with an irregular row of about sixteen to twenty pointed scales. Siphon less than four times its basal width, nearly uniform; false pecten from near base to



Wyeomyia (Davismyia) petrocchiaie (Shannon & Del Ponte, 1928).
 Fig. 1, male genitalia: a, basistyle and dististyle; b, median plate;
 c, tenth sternite; d, mesosome; e, ninth tergite; fig. 2, pupa, abdominal
 segments II to apex, dorsal; fig. 3, larva; a, head and b, terminal ab-
 dominal segments.

apex; a single moderate ventral hair. Anal segment with the plate saddle shaped and uniformly spiculose; dorsal setae (3+1); lateral and ventral setae single, all setae long. Gills four, long and pointed.

Type.—A male specimen with corresponding larval and pupal exuviae has been selected as the allotype of this species. It is registered in the collections of the Departamento de Parasitologia da Faculdade de Higiene e Saúde Pública, under number 9.378.

Wyeomyia (Dendromyia) knabi Lane & Cerqueira, 1942

Figs. 4, 5

We have two slides from Bahia, Ilhéus, Pirataquissè. The material was determined by G. V. Santos in 1944; the adults were not examined by us. As the pupa and larva of this species have not been described we give their descriptions below.

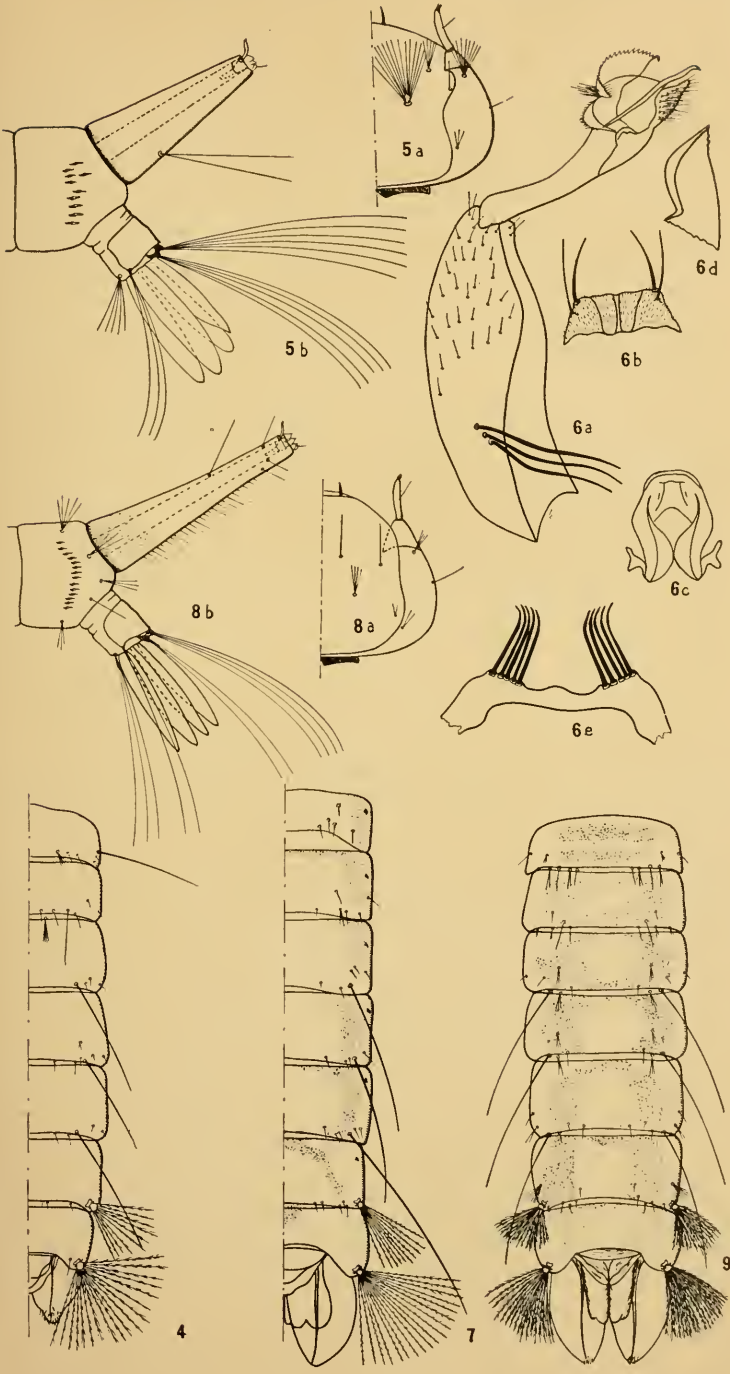
Pupa.—Tube slender, thickened in the middle and expanded at apex. Cephalothoracic hairs a long double or triple and a long five or six branched tuft, the other hairs small.

Abdomen, fig. 4, narrowly darkened at base of segments III to VII. Hair A of II and B of VI about twice as long as respective segments. B of III two-thirds the length of segment. C of II and III in tufts one-third the length of segment. Tuft A of segment VII less than half the size of that of VIII. Paddle the size of segment VIII, subtriangular, spiculose at apex.

Larva.—Fig. 5. Head rounded; antenna very small, a single mesial hair; head hairs multiple or single, as in figure.

Body nude. Prothoracic hair formula m.l.m. (small, slender), m.l.m.m. (large and long). Comb of segment VIII of about 10 free scales in an irregular row. Siphon slightly more than twice its basal width, attenuated apically, with a long double ventral hair on basal third. Anal segment with the plate saddle shaped, smooth; dorsal hairs (6, 5); lateral hair three or four branched, both long; ventral tuft of five small hairs in a tuft. Gills about three times the length of anal segment, broad and rounded at apex.

Wyeomyia (Dendromyia) knabi Lane & Cerqueira, 1942. Fig. 4, pupa, abdominal segments II to apex, dorsal; fig. 5, larva; a, head and b, terminal abdominal segments. *Sabethes (Sabethes) belisarioi* Neiva, 1908. Fig. 6, male genitalia; a, basistyle and dististyle; b, median plate; c, tenth sternite; d, mesosome, e, ninth tergite. *Sabethes (Sabethoides) glaucodaemon* Dyar & Shannon, 1925. Fig. 7, pupa, abdominal segment II to apex, dorsal; fig. 8, larva; a, head and b, terminal abdominal segments. *Sabethes (Sabethoides) chloropterus* (Humboldt, 1820). Fig. 9, pupa, abdominal segments II to apex, dorsal.



Sabethes (Sabethes) belisarioi Neiva, 1908

Fig. 6

We have a single male, from Minas Gerais, Passos.

Male.—Similar to female even as to length of palpus and plumosity of antenna, although these may be slightly denser.

Genitalia, fig. 6: Basistyle nearly three times as long as wide, nearly uniform, three setae below middle; median plate spiculose, quadrate with two lateral setae, one over the other. Dististyle shorter than basistyle, a smooth basal arm of average size, apical structures forming a moderate knob, as in the figure. Tenth sternite with two or three very inconspicuous teeth. Mesosome as in the figure, small. Ninth tergite with broad, interlobar space which is protuberant in the middle, each lobe with five setae which are thick and turned outwards.

Type.—The single specimen has been selected as the allotype of this species and is registered in the collection of the Departamento de Parasitologia e Higiene Rural da Faculdade de Higiene under number 9.367.

Note.—This species would be placed in dichotomy 15 of the key by Lane (1953), but can be differentiated by the much smaller knob on dististyle, without the long lateral lobe, the setae of basistyle (which are close together), and the absence of teeth on the tenth sternite.

Sabethes (Sabethoides) glaucodaemon Dyar & Shannon, 1925

Figs. 7, 8

Our description is based on three larval and pupal exuviae. All come from the State of Minas Gerais, Passos, March and August 1946.

Pupa.—Fig. 7. Tube darkened, uniform, a little broadened at base and apex. Cephalothoracic hairs double, in two pairs, long. Other setae small.

Abdomen slightly darkened as in the figure. Segments IV to VI with hair B longer than segment. Tuft A of segment VII smaller than of VIII. Paddle nearly twice the length of segment VIII, nude.

Larva.—Fig. 8. Head with hairs small, as in figure. Antenna very short with a hair in the middle. Maxilla long and with a black pointed apical tooth.

Body nude. P.h.f. 2.1.2. (very small) m.m.m.? (large). Lateral comb of segment VIII of a single free row of approximately thirteen scales. Tube about four times as long as wide; false pecten over most of the length of tube; two dorsal and two ventral setae. Anal segment not ringed by the plate, dorsal hairs (4+2); lateral hair double; ventral tuft triple. All these hairs long. Gills two and a half times as long as anal segment, broad and blunt at apex.

Sabethes (Sabethoides) chloropterus (Humboldt, 1820)

Fig. 9

We have a male which is, in the adult, slightly different from the one which we described (Lane, 1953). The proboscis is dark underneath and the palpus has white scales dorsally and is very short. As only the pupa has not been described we append below a description.

Pupa.—Tube nearly uniform, average, slightly expanded at base and apex. Cephalothoracic hairs double, long and in two pairs, the rest small.

Abdomen, fig. 9, slightly marked on segments, as in the figure. Segments IV to VI with hairs B longer than segment. Tuft A of segment VII quite smaller than that of VIII. Other hairs small. Paddle twice as long as segment VIII, spiculose at apex.

This pupa is described from a slide which has a pupal and larval exuviae. The material was determined by G. V. Santos and comes from the State of Bahia, Ilhéus, Pirataquissê, 29.IX.1949.

The larva has a tube about five times as long as basal width so that this character is not useful for the separation of this species from *S. purpureus* Peryassu and *cyaneus* (Fab.).

REFERENCE

Lane, J., 1953. Neotropical Culicidae, Univ. São Paulo, São Paulo, Brazil, 2 vols.

**CULEX (CULICIOMYIA) TERMI, AN UNUSUAL NEW
MOSQUITO FROM THAILAND**

(DIPTERA, CULICIDAE)

BY †DEED C. THURMAN, JR.^{1, 2}

In the course of mosquito collecting in Ngao District, Lampang Province, Northern Thailand, during July, 1952, the author was much surprised to collect larval specimens of a *Culex* that were most unusual in that the siphon of each

¹Sanitarian, Division of International Health, United States Public Health Service, assigned as Regional Malaria Control Adviser for Northern Thailand with the U.S.A. Operations Mission to Thailand of the Foreign Operations Administration. Due to the sudden death of the author on April 18, 1953, from illness contracted while on duty in Northern Thailand, the responsibility of completing this paper and others was undertaken by Mrs. Ernestine B. Thurman, Senior Assistant Sanitarian (R), Division of International Health, USPHS, assigned as Malaria Control Training Adviser, USOM to Thailand, FOA.

²I wish to thank Dr. Alan Stone, U. S. National Museum, and Dr. Melvin E. Griffith, USOM to Thailand, FOA, for making it possible for me to complete this study and for reviewing the manuscript.—ERNESTINE B. THURMAN.