

THE HORSE FLIES OF DOMINICA

(DIPTERA: TABANIDAE)

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ABSTRACT—Two species of *Tabanus* were found, *T. dominicanus* Kröber and *T. commixtus* Walker. The male of *dominicanus* is described for the first time and *commixtus* is reported from the Lesser Antilles for the first time.

The material on which this paper is based was collected by D. M. Anderson, D. R. Davis, R. J. Gagné, D. L. Jackson, P. J. Spangler and W. W. Wirth for the Bredin-Archbold-Smithsonian Biological Survey (1956–1966).

The fauna of Dominica consists of two species, one endemic to the island, the other previously known only from Mexico to Panama.

As Fairchild (1969) has recently indicated, the subdivision of the Neotropical *Tabanus* into subgenera is not feasible at the present time as only a fraction of the species have been assigned to the presently proposed subgenera, and these subgenera are almost impossible to define. For this reason I refrain from utilizing the subgeneric names *Lophotabanus* and *Neotabanus* for the two species. The species may be distinguished from one another as follows:

Frons narrow, parallel-sided; palpus very slender, tapering; wing brownish; fore tibia nearly unicolorous, pale brown; abdomen brown with broad yellowish posterior triangles on terga	dominicanus Kröber
Frons wider, narrowed below; palpus stout basally; wing hyaline; fore tibia white on basal half, dark distally; abdomen with continuous median pale stripe and oblique sublateral spots	commixtus Walker

***Tabanus dominicanus* Kröber**

Tabanus (T.) *dominicanus* Kröber, 1931, Stett. Ent. Zeit. 92:301; 1934, Rev. de Ent. 4:308.

Tabanus (*Lophotabanua*) *dominicanus* Kröber: Bequaert, 1940, Rev. de Ent. 11:313; Fairchild, 1956, Smiths. Misc. Coll. 131(3):14.

As there is no full description of the female in English and the male has not been described, I present the following descriptions based on much better material than the previously known specimens.

Female. Length 12–13 mm. Generally reddish brown. Eyes (relaxed) green or reddish purple under different light incidence, with a single dark purple oblique band. Frons 5.5 times as high as basal width, slightly narrower at mid length than at either end. Frontal callus brown, small, well separated from eyes, the

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median callus forming a slender dorsal extension above it to about upper third of frons. Subcallus clear brown pollinose, this color extending down along eyes as a narrow band; face and cheeks grayish; orbital fringe very short; beard white. Antenna reddish brown to just before dorsal angle of first flagellomere, black beyond; scape short, expanding distally, with black hair; dorsal projection of pedicel short and blunt; first flagellomere with dorsal angle obtuse, height about two-thirds of length; style a little longer than first flagellomere. Palpus slender, tapering, with black hair. Scutum dark brown with five paler stripes, the median one very slender; a poorly defined patch of black hairs on scutoscutellar suture, flanked by a patch of golden hairs on each side; pleuron grayish. Wings uniformly pale brownish, except for hyaline behind vein R_1 proximad of stigma. Halter pale brown; legs almost uniformly rather pale brown. Abdomen uniformly reddish brown with paler posterior triangles on terga I–IV, all small and becoming more transverse posteriorly, and with narrow pale incisures on terga V–VI; venter paler brown with narrow yellowish incisures.

Male. Coloration almost exactly as in female except that the face, cheeks and pleuron are more yellowish brown with no contrast between subcallus and lower part of head. Eyes holoptic, the upper facets large, pale yellow, the lower facets dark with green-purple reflections.

Distribution. Dominica.

The type locality is Neba (= ? Neiba Estate) and other specimens were collected at Laplaine and Sylvania. New records are as follows: 2 miles E. of Pont Casse, April 10, 1966 (Gagné), 1♀; Pont Casse, May 19, 1965 and June 7, 1965 (both Davis), 1♂, 1♀; Kinellan Estate, July 18, 1965 (Jackson) 1♀; Holmwood Estate, July 19, 1965 (Jackson), 1♀; South Chiltern, August 18–19, 1965 (Jackson), 1♀; Morne Guy, September 13, 1965 (Anderson), 2♀; Pont Casse, October 12–14, 1964 (Spangler), 1♀; Clarke Hall, October 20–31, 1964 (Spangler) 1♀.

Kröber, in 1934, gave the distribution of the species as "S. Domingos" but this is an obvious error.

***Tabanus commixtus* Walker**

Tabanus commixtus Walker, 1860, Trans. Ent. Soc. London 5:273; Fairchild, 1956, Smiths. Misc. Coll. 131(3):13.

Tabanus maya Bequaert, 1932, J. N. Y. Ent. Soc. 39:546.

Tabanus (*Neotabanus*) *maya* Bequaert: Fairchild, 1942. Ann. Ent. Soc. Amer. 35:176.

This species was described from Mexico with no further data and Fairchild examined the type in the British Museum and found that it agreed with *maya* Bequaert and not with *lineola* Fabricius under which it had been synonymized. I have compared the single specimen collected in Dominica with a paratype of *maya* as well as specimens determined by Fairchild from Mexico and Panama. The agreement is excellent. The species is of the *lineola* type but the median stripe of the abdomen expands posteriorly on the terga as well as anteriorly

on tergum II, there is a distinct black stripe, tapering posteriorly to each side of the gray median stripe on terga I and II, the sublateral pale stripes are formed of oblique spots, and there is a very faint spot on the wing at the furcation.

Distribution. Mexico (Morelos, Yucatan, Quintana Roo), Guatemala, Panama, Dominica.

Dominican record. Clarke Hall, January 21–31, 1965 (Wirth) 1♀.

REFERENCE

- Fairchild, G. B. 1969. Notes on Neotropical Tabanidae XII. Classification and distribution with keys to genera and subgenera. *Arq. de Zool. S. Paulo* 17: 199–255.

AN ANNOTATED LIST OF CUCKOO-WASPS FROM ERIE COUNTY, PENNSYLVANIA (HYMENOPTERA: CHRYSIDIDAE)

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ABSTRACT—Twenty-three species of Chrysididae are recorded from Erie County, Pennsylvania, along with the number of specimens, sexes, inclusive dates of collection, localities, and habitats. The hosts of each chrysidid species, if known, are reviewed. The ecological relationships of the various species are discussed.

The Nearctic ruby-, gold-, and cuckoo-wasps of the family Chrysididae are primarily parasites in the nests of other Hymenoptera, especially solitary wasps and bees. Although lack of information on the preferred habitats, seasonal flight periods, behavior patterns, and host species has slowed taxonomic progress on this group, studies such as Krombein's (1958b) on the ecologies and life histories of some North Carolina species have played an important role in improving the systematics of the Chrysididae. Other recent contributions which have aided considerably in clarifying the taxonomy of this family include papers by Cooper (1952), Krombein (1957, 1960, 1963a, 1967), Bohart and Campos (1960), Bohart (1962, 1964), and Telford (1964). D. S. Horning (Davis, California) is revising the



Stone, A. 1970. "The horse flies of Dominica (Diptera, Tabanidae)."
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