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NOTES ON PHILIPPINE MOSQUITOES—XI  
A NEW SPECIES OF *Tripteroides*<sup>1</sup>

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A number of adult mosquitoes representing several species were incidentally collected in northern Luzon during the joint expedition of Chicago Natural History Museum and the Philippine Museum of Natural History. In the collection was a new species of *Tripteroides*. Though its larva and pupa are unknown, and the adult cannot be differentiated by external characters from several other species (in Group B) of Philippine *Tripteroides*, it is considered new owing to the striking peculiarities it bears in the male terminalia.

As an appreciation of the splendid help rendered by Captain Harry Hoogstraal, U. S. Army, toward the rehabilitation of the Philippine Museum, this new species is named after him. Only those who have seen the Philippine Museum of Natural History before and after the war can fully understand why such help is so much appreciated. Nothing now remains of the museum but twisted steel and shattered concrete. After Mr. Hoogstraal was discharged from the army, he engaged in zoological collecting as director of the joint expeditions of Chicago Natural History Museum and the Philippine Museum. He has directed the expeditions in Luzon and Mindanao.

***Tripteroides hoogstraali* sp. nov.**

*Holotype* from Mount Data, Luzon Island, Republic of the Philippines. Altitude approximately 7,000 feet. Male. Collected April 23 by Mr. Celestino. To be deposited in the collection of the United States National Museum.

<sup>1</sup> This study was performed in the Entomology Department of the Nineteenth Medical General Laboratory, U. S. Army. The specimens used were collected in northern Luzon by the joint expedition of Chicago Natural History Museum and the Philippine Museum of Natural History. A longer paper dealing with all known Philippine *Tripteroides* is in preparation. Several of the species to be included are new.

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*Allotype*.—A female, same data as the holotype; to be deposited in the United States National Museum.

*Paratypes*.—Eleven males and twenty-three females, same data as the holotype; two pairs each to be deposited in the collections of Chicago Natural History Museum and the Bureau of Health in Manila; the rest to be deposited in the United States National Museum.

*Description*.—A member of Group B, genus *Tripteroides*, subgenus *Tripteroides*, according to Edwards' scheme (1932). In external appearance very close to *powelli* and other allied species. The paratergite, similar to that in *powelli indicus* and rather different from those of other forms, is concolorous (dark-brown) with the spiracular, subspiracular, sternopleural, and mesepimeral areas.<sup>1</sup>

Vestiture of the head similar to that in other species of the group. Tori and clypeus brownish, bare. Antennae of the usual type, plumose in male, not in female. Palpi dark, about two and one-half times the length of the clypeus in most individuals, somewhat shorter in others. Proboscis dark, also somewhat variable in length, about one and one-half times the length of the front femur.

Scutal integument (largely denuded of scales in most specimens) pale-brown, the posterior half a little darker; scutal scales narrow, dark-brown; dorso-central bristles apparently absent (no visible sockets); supra-alars numerous, as in other species. Scutellum pale-brown to yellowish; scales broad, flat, dark-brown; usual bristles present as indicated by sockets. Postnotum dark-brown, bare. One female has pale-brown postnotum, but is apparently the same species. *Apn* yellowish, clad with one or two rows of broad, flat, dark-brown scales, and about half a dozen stiff bristles of the same hue. *Ppn* a shade darker than *apn*, with widely separated dark-brown narrow scales, and a single dark bristle. Paratergite dark-brown, bare. Pre-alar knob pale-brown or yellowish, with about six bristles as indicated by sockets. Postspiracular, subspiracular, sternopleural, and mesepimeral areas, as well as meron and part of midcoxa uniformly dark-brown. The female with paler postnotum also has the anterior half of the sternopleuron somewhat paler than the surrounding areas. A group of about a dozen brownish or yellowish upper mesepimeral bristles, but apparently without lower mesepimerals or upper sternopleurals; about six or eight lower sternopleurals, as

<sup>1</sup> It is not known whether this coloration would be the same in adults raised from larvae in the laboratory; captured wild adults of *monetifera*, *nitidoventer*, and *powelli* are usually darker than adults raised from larvae in the laboratory.



indicated by sockets. A large patch of broad silvery scales covers the posterior half or more of the sternopleuron, and evidently also the larger part of the mesepimeron. A small patch of similar scales on each coxa. Propleuron yellowish, similar to *apn* and anterior coxa, with about three or four bristles, usually all yellowish but some-

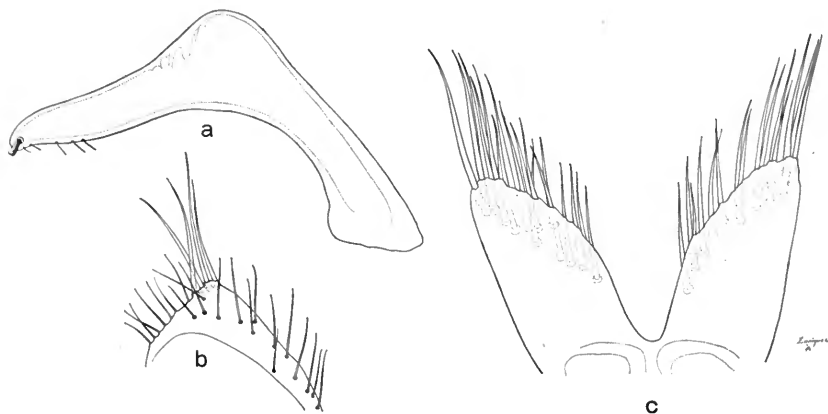


FIG. 18. *Tripteroides hoogstraali* sp. nov. Parts of male terminalia: a, style (drawn from flat preparation); b, sub-basal lobe of coxite; c, tergite IX.

times the largest dark-brown; apparently without propleural scales. Metapleuron, metameron, and narrow metanotum yellowish.

Legs dark, under sides of femora paler. Two silvery spots on fore and mid femora, only one on hind; line indistinct or absent (apparently) on all femora, particularly on hind, in most individuals; a few have the line either on the fore or mid femur fairly well indicated. Larger foreclaw in male toothed. Wings dark, squama fringed. Abdominal tergites dark-scaled, the silvery, lateral, apical patches visible dorsally on II to VI, but apparently forming no complete bands. Integument of tergites (in those largely or completely de-scaled) yellowish like the metanotum; VII and VIII somewhat darker. Sternites golden-scaled in both sexes, except VIII, which is dark.

Male terminalia (fig. 18): Lobes of tergite IX relatively long and broad, triangular at tips; each lobe bears about twenty long bristles arranged in two rows toward the apex of sternal surface. Coxite of the usual type; the sub-basal lobe bears about four strong bristles, aside from the usual hairs and weaker bristles. Style much swollen toward apical half, apparently flattened instead of tubular, bent inwardly at middle, and the apical portion twisted (the twist not

apparent in mounted specimens flattened by the cover glass). The surface at about the middle of the twisted portion is uneven, some of the projections simulating short denticles; a few short hairs toward apex. The apical appendage of the style is short, enlarged apically, blunt, dark in contrast to the pale-yellowish style. A few rather coarse teeth on the interno-tergal side of the mesosome. Paraproct of the usual kind for the group.

*Remarks.*—The male terminalia are described from five slide mounts, but those of the holotype are left intact in the specimen. Terminalia of the other males were, however, examined directly; the swollen style and tergite IX could be made out without much difficulty. The tip of the abdomen is missing in one male.

The scales are partly or largely rubbed in all the specimens in the series upon which the description is based. The most perfect male and female were chosen as holotype and allotype. All of the specimens were collected in the act of biting man or while resting on ferns in a damp forest ravine at Mount Data. The place of capture was said to be very dry at the time, without any collection of water (on ground, treehole, etc.) where the mosquitoes might possibly breed.

A female of *Anopheles lindesayi benguetensis* King (1931) was captured at the same time as the series of *T. hoogstraali*. Four males and seven females of this *Anopheles* were collected by Mr. Celestino in foxholes on the summit of Mount Data (altitude approximately 7,500 feet). Mosquitoes collected by the expedition party at other localities have not yet been carefully studied.

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