

ON PHILIPPINE MOSQUITOES, IX. NOTES AND DESCRIPTIONS  
OF CULEX (CULEX) HUTCHINSONI BARRAUD  
(DIPTERA: CULICIDAE)<sup>1</sup>

Ruben G. Basio<sup>2</sup>

Descriptions of adults and illustrations of diagnostic features of *Culex (Culex) hutchinsoni* Barraud are presented. Comments on its possible mode of introduction into the country are also given.

*Culex (Culex) hutchinsoni* Barraud was originally described in 1924 from Nongpoh (Khasi Hills District), Assam, India. According to Stone, Knight and Starcke (1959) the recorded distribution of this species includes India, Malaya and Singapore, and doubtfully Burma. Recently, Bram (1967) added Thailand, South Vietnam and confirmed the occurrence of this species in Burma. Specimens from the latter are reportedly deposited in the British Museum (Natural History).

Between 1969 and 1970, a series of adults from light trap collections has been received and tentatively identified as *Culex (Culex) quinquefasciatus* Say, the common house mosquito. While re-examining the material for the paper "The Mosquito Fauna of the Philippines" by the author (Basio 1971), it was noted that the series, which was tentatively determined as *C. (C.) quinquefasciatus* has distinctive markings on the pleural integument. On the basis of this diagnostic feature and comparisons with published descriptions, the identity of the material was, believed to be, *C. (C.) hutchinsoni* instead. Other distinctive features are given below and a more detailed description is given for use of Filipino entomologists to whom the original description by Barraud (1924) is largely inaccessible.

*Culex (Culex) hutchinsoni* Barraud, 1924

Fig. 1g, h, i, j, k, l

The distinctive features of *C. (C.) hutchinsoni* include the following: presence of prominent markings on the pleural integument as illustrated in Fig. 1g; banding patterns on abdominal tergites (Fig. 1i); scalings of the mesoscutum (Fig. 1j); presence of a narrow median band of pale scales on the male proboscis (Fig. 1h); presence of a pale longitudinal stripe on anteroventral half of hind femur (Fig. 1k); and the structure of the male terminalia (Fig. 1l). The differences from *C. (C.) quinquefasciatus* are illustrated, side by side with with corresponding features, in Fig. 1a to f.

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<sup>2</sup> Research Entomologist, Bureau of Quarantine, Department of Health, Port Area, Manila.

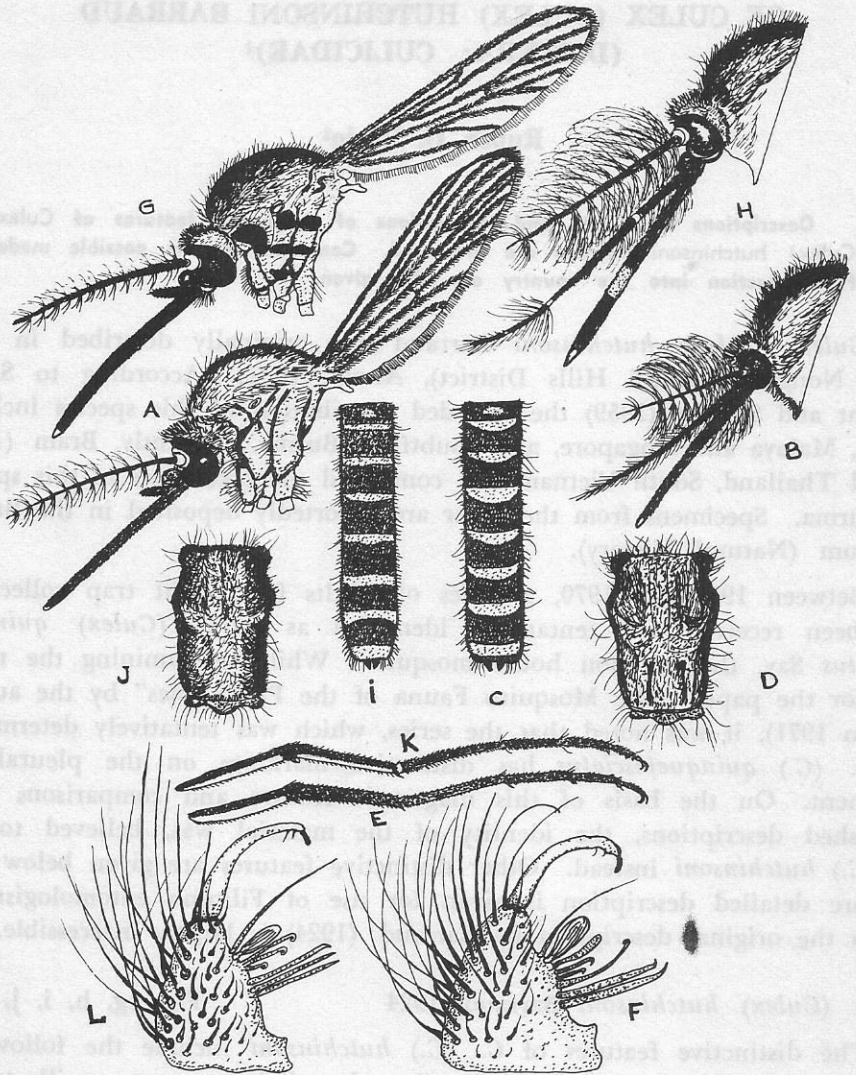


Fig. 1. A-F: *Culex quinquefasciatus*  
G-L: *Culex hutchinsoni*

*Female*: Wing length 2.5 to 2.7 mm. Head with vertex covered with a mixture of brown and pale narrow, curved scales; palpus brown with pale scales at apex; proboscis brown with pale scales ventrally and medially except at base and apex, the pale scales not forming a complete band. Mesoscutum clothed with brown scales, these scales darker along the acrostichal and fossal areas; narrow brownish scales present on *apn*, *ppn* and scutellum; pleuron pale brown with prominent markings on the integument; with one lower mesepimeral bristle present. Wing covered with narrow dark scales. Legs dark-brown; hind femur with longitudinal stripe on anteroventral half, darker dorsally and apically; hind tibiae dark with a narrow pale band at

apex; tarsi all dark. Abdomen with tergites dark-scaled with narrow basal pale bands on segments II to VII and VIII entirely pale-scaled; sternites clothed with pale brown scales.

*Male:* Like female except as follows: antenna plumose; proboscis with an indefinite narrow median band of pale scales; palpus longer than proboscis, and with dark brown hairs on last two segments and tip. Terminalia with lobe of basistyle well developed, with 3 prominent strong setae, followed by 3 hooked setae, a broad leaf-like seta and a curve seta, in that order; dististyle normal in shape; phallosome broad and tapering; proctiger with Ingo tufts of bristles and 3 cercal setae.

*Larva and Pupa.* Not recovered.

*Material Examined.* Fifteen females and 12 males, with 9 terminalia mounted on slides, Clark Air Force Base, Pampanga, 21 January 1969 (G. A. McKenzie), collected by New Jersey Light Trap; 6 females and 9 males, with 4 terminalia mounted on slides, with same data except date (8 March 1969); and 8 females and 3 males, with 2 terminalia mounted on slides, also with same data but collected 14 June 1970 by A. P. Andrews. Specimens are deposited in the author's collection.

*Breeding Habitat.* Unknown.

*Remarks:* Although *Culex hutchinsoni* has not been shown to be of medical importance, it arouses interest because it has never been recorded except recently (Basio 1971). The author suspects this species to have been introduced into the Philippines via aircrafts from South Vietnam in connection with the transportation of military supplies, various equipment, and soldiers for treatment at the base hospital at Clark Field. Since these aircrafts were not inspected or disinfected, the escape of transported mosquitoes might have gone unnoticed and they were able to establish low density reservoir populations on the base.

The other way by which *Culex hutchinsoni* might have been introduced at Clark Air Base is by sea. However, this theory would seem unlikely since the Base is situated far from sea ports, about sixty miles north of Manila where ships are anchored offshore. Also, since collection sites of *Culex hutchinsoni* are within the perimeter and the immediate vicinity of the airfield, it is more probable that the mosquitoes were introduced by aircraft.

As suggested by Reisen, Burns and Basio (1971), the distribution of mosquito species in Southeast Asia has been altered immensely in recent years, and possibly, the introduction of some species of medical importance will proportionately increase the receptivity potential for infectious diseases. With the present increase in volume of air traffic, introductions and colonizations of various mosquito vector species in the Philippines are not remote.

The breeding habits of *C. hutchinsoni* was reported by Colless (1955) to resemble those of *C. quinquefasciatus* and that adults appear to frequent houses. Specimens from trap collections at Clark Air Base seem to support these observations made by Colless. With this phototactic behaviour, the probability that *C. hutchinsoni* would become an important vector of urban filariasis is not remote, as is *C. quinquefasciatus*. The need for strict quarantine procedures and preventive measures against mosquitoes and other arthropods being transported by aircraft must therefore be seriously considered.

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