

TWO NEW SPECIES OF *CULEX* (DIPTERA,
CULICIDAE) FROM ASSAM.

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Culex edwardsi sp. n.

THIS species resembles *Culex sitiens* (Wied.) in general appearance, but is somewhat lighter in colour, and differs from this, and other allied species, in having a distinct pale longitudinal stripe on the femora and tibiae of the mid and hind legs.

Description of type female. *Head* with yellowish brown narrow and upright forked scales: palpi dark with a few pale scales apically; proboscis black with a well defined creamy ring midway between the base and apex, and about a fifth of the length of the proboscis, rather wider below than above. *Thorax*: integument of mesonotum blackish brown clothed with dark brown and yellowish brown narrow scales, the lighter scales arising chiefly along the suture, over the wing roots, and on either side of the bare space in front of the scutellum; there are also numerous blackish and yellow bristles. Prothoracic lobes, proepimera, and scutellum with narrow pale brown scales. Integument of pleurae pale brown with several indistinct darker areas, and patches of white scales. Lower mesepimeral bristles absent, five or six proepimeral. *Abdomen* with moderately broad basal pale yellow bands, the posterior edge of each gently rounded and produced at the extreme edges of the tergites towards the apical border; sternites with broad basal whitish bands. *Wings* dark scaled, the outstanding scales narrower than in *Culex sitiens* (Wied.), and resembling those of *Culex cornutus* (Edw.); base of lower fork-cell slightly nearer the base of the wing than that

of the upper; wing length 1.2 mm. *Legs*: all the femora broadly pale posteriorly, fore pair dark anteriorly with numerous pale scales tending to form patches about midway between the base and apex, mid pair dark anteriorly with a well-defined longitudinal pale stripe running the whole length, hind pair broadly pale on basal half except dorsally, apical half dark with a longitudinal pale stripe to the tip: mid and hind tibiae dark brown with a pale line on the outside from the base continued nearly to the apex, the latter with a narrow pale ring, fore tibiae pale beneath but without a definite stripe. Tarsi dark brown with narrow but distinct pale rings which are mainly basal but include the tip of each segment as well as the apices of the tibiae; first segment of hind tarsi with a pale line on the outside except at the base and apex.

The male is at present unknown.

Type female (unique) in the Central Malaria Bureau collection. Kasauli, from Shillong, Assam, June 1922, caught in Director's Bungalow, Pasteur Institute (Barraud).

Culex whitei sp. n.

This resembles *Culex vishnui* (Theo.) and *Culex barraudi* (Edw.) very closely, differing chiefly in the structure of the male hypopygium. The teeth on the lateral plate of the phallosome are shorter than in the first named species, and more numerous than in either of the species mentioned above or in any of the allied Indian species. The lateral process of the lateral plate of the phallosome is also unusually long and pointed. Drawings illustrating the male genital structures will be given in a following part of the Revision of the Culicine Mosquitoes of India.

Both sexes agree with *Culex vishnui* (Theo.) in the ornamentation of the proboscis, mesonotum, abdomen, and legs; the base of the lower fork-cell in the wings of both sexes is distinctly nearer the base of the wing, in most specimens, than that of the upper. Male palpi narrowly pale at the tips, the long segment with two pale rings, that nearer the apex being the wider.

Type male and female, and other specimens, from Haflong, Cachar Hills, Assam, August 1922, larvae from pools (Barraud). Other specimens from Nongpoh, Assam, November 1921 (Christophers) and Shillong, Assam, June 1922 (Barraud), all in the Central Malaria Bureau collection, Kasauli.

Mr. R. Senior-White informs me that a mosquito taken by him at Shillong in October 1920, which was wrongly indentified for him at Kasauli as *Culex univittatus* (Theo.) and recorded by him under that name in the Memoirs of the Department of Agriculture in India, Entomological Series, Vol. VII, No. 9, December 1922, p. 87, has been redetermined by him as *Culex vishnui* (Theo.) I have not seen the specimen but think it most probably belongs to the species here described, as it appears to be the common one of this difficult group in the hill districts of Assam. I have therefore much pleasure in dedicating this species to him.