

CULEX (CULEX) AFRIDII SP. N. A NEW SPECIES OF MOSQUITO (DIPTERA, CULICIDAE) FROM DACCA, EAST PAKISTAN

M. QUTUBUDDIN *

This species belongs to the *Lasioconops* or *sitiens* group (Edwards, 1932) of the subgenus *Culex* which is distinguished by the presence of a pale band on the proboscis and by the banded tarsi.

It is a rather large dark brown species with a purplish blue sheen on thorax, abdomen and legs. It is clearly distinguished from its closest ally *C. bitaeniorhynchus* Giles by its very dark brown color, the basal pale abdominal bands and the tarsal rings not involving the apices. The hypopygial characters are so distinctive that it cannot be confused with any other species of the genus.

Description of holotype ♂. *Head*: Vertex and nape densely covered with dark brown upright scales. The ends of the scales are markedly expanded. A patch of broad creamy white scales low down at each side touching eyes.

A row of strong somewhat dark brown bristles in front of the erect upright scales along the eye-margins converging towards the nape.

Proboscis: (Half of it broken in the single male described). Dark brown with a broad pale band in the middle. Under-side brown, upperside with a narrow pale longitudinal stripe continuous backwards from the pale band. Palps missing. *Antennae* (one missing), tori dark brown; flagellum bushy with dark brown hairs.

Thorax: Integument of anterior pronotum, posterior pronotum and mesonotum very dark brown with a purplish blue sheen. Scutellum and the posterior margin of mesonotum pale brown. Anterior pronotum covered with a mixture of golden and very dark brown narrow scales and dark brown bristles, the latter on the upper

margin. Anterior half of mesonotum mainly covered with narrow golden scales interspersed in the middle by very dark brown scales; posterior half up to scutellum and wing roots also covered with similar narrow dark brown scales. Base of middle, apex and lateral lobes covered with very dark brown scales. All the three lobes with long dark brown bristles. Postnotum light brown. Integument of pleura dark brown except that of mes-epimeron which is pale. Meron also dark. Pleura devoid of scales except two small patches of white scales on the sternopleura, one on the upper portion and the other on the posterior lower margin. Color of integument under the upper patch of scales pale. Lower mesepimeral bristle absent. Coxae dark except the hind one which is pale.

Wings; about 5 mm. Mainly dark, veins covered with narrow and broad black and broad dull creamy scales as follows: Costa covered with black broad scales, sub-costa with broad black and dull creamy scales; second vein with mostly dark narrow scales. Rest of the veins covered with mostly narrow black scales with a sprinkling here and there of broad black scales. *Legs*: Dark brown much darker than in *C. bitaeniorhynchus* Giles with numerous scattered pale scales giving a speckled appearance when viewed from certain angles. Femora, tibiae dark, mid and hind femora pale beneath. Tarsi dark with only basal pale rings. *Abdomen*: Tergites very dark brown with a purplish blue sheen and with narrow basal yellow bands.

Male Terminalia. *Style*: (fig. 1, A.5) Short about 1/5 the length of the coxite, curved with its membranous flange, it very closely resembles the head of a cobra, the flange representing the dilated hood of the snake. The terminal appendage is short. Coxite almost three and half times its

* Senior Research Officer, North Regional Laboratories, Pakistan Council of Scientific and Industrial Research, Peshawar.

greatest width, completely devoid of scales covered with short hairs on the dorsal side and with some thin long hairs on the outer side along the distal border. The presence of a single very long strong hair on the outer border of one of the coxites and the prominent scars of fallen hairs along the border of both the coxites indicates the existence of similar long strong hairs on the outside, that appear to have been rubbed off in the single specimen de-

scribed. The ventral side covered with fairly numerous fine hairs and there is a row of short fine hairs on inner sternal area below the lobe.

Subapical lobe of coxite bears one leaflet and 3 rod-like bristles, one of which is longer than the other two. Basal lobe divided, the upper portion having two leaflets one of which is large and broad the other one shorter and narrower; and three pale rods, stout and curved at tip,

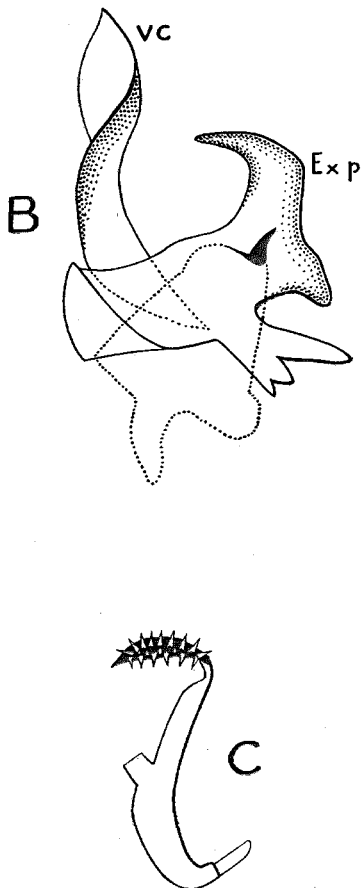
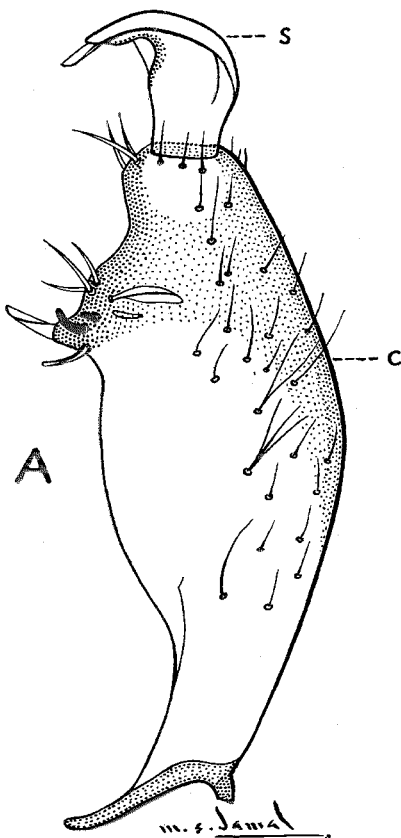


FIGURE 1. *Culex (Culex) afridi* sp. n. Male terminalia. A-Side picce, B-Phallosome, C-paraproct; s, style, c coxite; vc, ventral cornu; Ex p., external process.

one of which is shorter than the other two. Lower portion bearing two leaflets one of which is sinuous with a broad stem occurring on a highly sclerotised raised tubercle; the other leaflet is shorter and narrower. At the base of the tubercle arise two dark short stout rods curved at tip, one of which is much smaller than the other. *Phallosome*: The phallosomal chitinisations (fig. 1, B) comprise a highly complex structure. Lateral plate with a very highly sclerotised and large ventral cornu terminating distally in an expanded and spatulate fold. The ventral cornu of the two sides fused together by a dorsal and ventral chitinisation extending from the base up to the point of folding. The external process is also a highly chitinised, remarkably sickle-shaped structure directed medially. The median process bears four blunt teeth, one of which is very large and thumb-like. It is sinuous and folded. The basal plate which is well-developed has two fingerlike arms. Paraproct with a crown of short spines and a narrow pointed basal arm with an abrupt elbow-like bend.

Described from a single type male collected by the author from Dacca, East

Pakistan, in October, 1952. The holotype male and one set of male terminalia of the same specimen are being deposited in the British Museum.

I have great pleasure in dedicating this species to Col. M. K. Afridi, M.D., Ch.B., D.T.M. & H, IMS., under whose inspirational leadership in the field of research on mosquitoes, malaria and other insect-borne diseases, I re-started my career after migration to Pakistan.

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