

# CULEX ROOTI, A NEW CULEX FROM PANAMA

(Diptera: Culicidae)

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On November 24, 1934, a number of mosquito larvae and pupae were collected from ground pools a few miles east of Panama City, R. de P. The mosquitoes found were *Anopheles neomaculipalpus*, Curry, *Culex conspirator*, Dyar & Knab., *C. iolambdis*, Dyar, *C. pilosus*, D. & K., and two male *Culex* of which no description could be found. Mr. W. H. W. Komp, who has recently had the opportunity to examine the types of the genus *Culex* in the U. S. National Museum, declared that this is a new species, and also made suggestions concerning the description. I am naming this mosquito in memory of the late Dr. F. M. Root, whose untimely death is deeply mourned by all those who have had the pleasure of knowing him and working with him.

## *Culex (Mochlostyrax) rooti*, new species

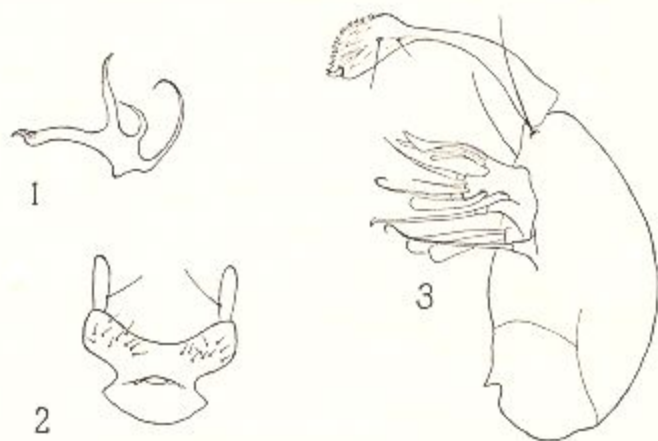
Clasper narrowed just before expanded "head," which is set at a slight angle with the plane of the shaft. "Head" not abruptly expanded, somewhat flattened dorsoventrally, the outer margin with a fine pilosity at crest, followed to the tip by a number of closely appressed triangular lamellae. Terminal horn very small; a short stout appendiculate spine inserted below and proximal to the tip of clasper. Two fine setae from tubercles arise from the outer aspect of the "head," the more distal being very fine and long. On the outer aspect of the "head" the membrane is finely striate, giving the appearance of sparse fine setae.

Side-piece rounded conical, somewhat flattened interiorly; a long coarse seta on inner aspect just below insertion of clasper; another situated on the dorsal side of the side-piece but having the appearance of being inserted at the base of the column of the outer division of the lobe of the side-piece. Whole surface clothed with long sparse setae, somewhat finer and more numerous on outer margin of outer curvature.

Outer division of lobe of side-piece with a short thick column bearing five appendages, or sets of appendages, all rather widely separated. The most proximal is a group of five appressed filaments; the smallest is curved, spatulate, with a slightly expanded truncate tip, about two-thirds the length of the others. The other four are widened just before the tip, there abruptly bent and narrowed to a point. The next most

proximal is a single stout flattened filament, with a central thickening, inserted on the outer aspect of the column, and slightly exceeding the five preceding filaments. Next in order is a fine, round, pointed filament with a long insertion, placed midway between the flattened filament and the long hook-tipped filament lying next to it, and about two-thirds the length of the latter. Inserted below and proximal to the hook-tipped filament is a large flattened filament, spatulate, in-folded, striate, the shaft bent upwards from near the insertion, the tip rounded.

The inner division of the lobe of the side-piece is unique, resembling most closely that of *Culex innovator* Evans. The two usual filaments with capitate tips are present, but instead of being inserted at the tip of a column, or at most on two divergent arms of a column, as is usual, the column is divided into two distinct parts, which have migrated a considerable distance apart. The more distal column arises just



*Culex rooti*, new species; male

1, Inner mesosomal plate. 2, Ninth tergites. 3, Side-piece of male terminalia.

internal to and proximal to the column of the outer division of the lobe of the side-piece, and is short, about one-third the length of the nearly straight beak-tipped filament it bears. The more proximal column arises a little internal to and more proximal to the distal column, and is about half the length of the outer column, somewhat more slender, and bears a more slender beak-tipped filament slightly bent before the tip.

Just external to the inner column, and slightly nearer it than to the outer column, two subequal spatulate filaments arise from sessile insertions, being broader towards the tips, which are rounded, and resembling the large flattened striate filament on the outer division of the lobe of the side-piece.

The single element of the paired inner mesosomal plate is also unique. The stem is flattened laterally. From a lateral view, there is a long ventrally directed arm, with a striate downcurved pointed

tip and a lateral shoulder. The middle point is directed upwards nearly at a right angle to the outer arm, as long as it, thinner, not flattened, slightly sinuate, with an imbricated pointed tip, laterally directed. A third long, hornlike, delicate point arises dorsal to the middle point, near the attachment of the basal hook; it is about half as long as the middle point, curved nearly in a semicircle, with a sharp infuscated point directed laterally outward. The basal hook is very slender and curved. The single element of the paired outer mesosomal plates is long, roughly triangular, with an extended grooved articulation where the inner plate attaches. The upper edge is arcuate.

The tenth tergites are membranous, no setae being present, the tips striate and pointed.

The ninth tergites show a close similarity to those of *C. pilosus*. The body is broadly U-shaped; the arms of the U are flattened, infuscated, round-tipped columns, each bearing a single long seta, inwardly and upwardly directed, inserted slightly below the middle of the column on the inner side. At the inner curve of each arm of the U-shaped plate is a patch of about 10 fine setae. Integral with the U-shaped plate and extending cephalad from it is a low, conical membranous area, the tip of the cone squarely truncate, leaving a lacuna.

The tenth sternites are rather long and slender, with seven long slender pointed teeth.

The other parts of the terminalia show no characteristic features.

The eighth abdominal segment is incurved ventrally, forming a V-shaped trough to which the conical membrane bearing the lacuna is attached.

The type slides, number 50942, have been deposited in the U. S. National Museum.