

E. Green delin.

## On the males of a species of *Monophlebus* from the Philippine Islands.

By E. Ernest Green, F. E. S., F. Z. S. With one plate.

I am indebted to Dr. E. Bergroth for the specimens described below. The material consists of three examples of an interesting male Coccid, ex coll. Dr. R. Frey, of Helsingfors. I understand that the specimens were collected by Dr. Boettcher and sent to Dr. Frey under the impression that they were Diptera. Two of them were taken in Samar Island and the third at Los Banos, in Luzon Island. They are all, unfortunately, more or less imperfect, parts of the antennae and abdominal appendages, and some of the legs. being

missing.

The three examples, though agreeing closely in other characters, differ from each other in the number and size of the abdominal appendages. In one of the examples from Samar (fig. 8) there are five well developed appendages on each side while, in the other (fig. 7), from the same locality, there are four only. The example from Los Banos (fig. 9) has four pairs of appendages, but the uppermost is relatively much shorter. There are also differences in the number of bristles on the halteres. If the character of the appendages were to be regarded as of specific importance it would be necessary to provide two (if not three) separate specific names for these three insects. It is difficult to obtain males of these large Monophlebines in sufficient numbers to permit of a satisfactory study of the range of variation in a single species. I have observed, however, that the males of recognized species from India undoubtedly exhibit some variation both in the development of these appendages and in the number of bristles on the halteres. I am, therefore, inclined to regard these three specimens from the Philippine Islands as forms of a single species, and I am now describing them as such. I have taken the intermediate form to represent the type. It is, of course, possible that these males eventually may be associated with females that havebeen described previously. One such female — *Monophlebus (Drosicha) townsendi* (Ckll.) — has been recorded from the Philippines; but as there is nothing — other than the locality — to connect the two sexes, I feel obliged to describe these males under a separate name.

Monophlebus philippinensis sp. nov.

Adult male (fig. 1) piceous, the abdomen and membranous areas of the thorax dull reddish. Antennae (fig. 6) imperfect, one broken, the other abnormal (with 9 joints only, instead of the normal number 10); the basal joint broader than long, with a few relatively short setae; 2nd joint approximately as long as it is broad, obscurely binodose, with numerous very long setae disposed in two imperfect whorls: 3rd to 8th (or 9th, in normal form) joints elongate, very distinctly trinodose, each node with a close whorl of very long setae (see fig. 6); terminal joint (fig. 4) longest, the proximal half distinctly trinodose. the distal half irregularly cylindrical, the setae disposed irregularly upon the distal area, but arranged in whorls on the nodes of the proximal area. Eyes (fig. 2) large, prominent, with an opaque cylindrical base and a strongly convex outer area occupied by numerous large, subcircular, translucent facets; a clear space on the cylindrical base probably indicates the position of an ocellus. Wings ample; dusky with two strong nervures and two conspicuous hyaline creases; the membrane obscurely rugose and faintly areolated, the costal area denser. Halteres (fig. 3) with 9 strong, hooked bristles that engage with a small concave lobe on the base of the wing. Limbs rather long; the relative lengths of the tarsus and tibia are as 15 to 42 for the front limb, and as 15 to 50 for the hind limb; (mid limbs imperfect, in the type specimen). Abdomen (fig. 7) broadly dilated, with a deep median posterior cleft at the fundus of which is the penial sheath; the lateral margins of the posterior four segments each with a long, fleshy, wrinkled appendage, the uppermost about half the length of the others. The exserted penis is thickly clothed with slender, reversed Abdomen and all the membranous areas shaggy with long and slender setae interspersed with conspicuous, circular, discoid pores. Length (from frons to extremity of penial sheath) 6 mm. Expanse of wings 14 mm.

Samar, Philippine Islands. Type in coll. E. E. G.

A second example, from the same locality, differs from the type in having 5 elongate appendages on each side of the abdomen (fig. 8), the uppermost appendage half the size of the others. The number of hooked bristles, on the halteres, is reduced to 5 on one and 6 on the other. Other characters as in type.

The third example (from Los Banos, Luzon) has the abdomen narrower (fig. 9). There are four appendages on each side, the uppermost less than half the length of the others. The halteres bear 5 hooked bristles only. The limbs are slightly shorter, the relative proportions of the tarsus to the tibia being as 13 to 35 for the front limb and 14 to 42 for the hind limb.

(Note. The proportions of the limbs have been determined by actual measurements, in millimeters, of the image magnified to 30 diameters.)

## Explanation of figures of Pl. I.

A reconstruction of the adult male:  $\times$  3  $^{1}/_{2}$  diam. 1.

Eve:  $\times$  80.

- One of the halteres:  $\times$  80.
- Terminal joint of antenna (type example, from Samar); × 30.

- " (example from Luzon): × 30.

  Three basal joints of antenna of type example: × 30.

  Abdomen of type example from Samar: × 9. 6.
- 7.
- Abdomen of 2nd example from Samar: × 9.

9. Abdomen of example from Luzon: × 9.

(In figures 4 and 5, the sockets only of the setae are indicated.)