

STUDIES ON THE FAUNA OF SURINAM
AND OTHER GUIANAS: No. 30.

ADDITIONAL NOTES ON SOME DRAGON-FLIES OF
THE GENUS ZONOPHORA

by

J. BELLE
(Paramaribo)

By way of a supplement to my 1963 paper on "Dragon Flies of the Genus *Zonophora*" (Studies Fauna Surinam 5, p. 60-69, pl. 3-4) other particulars of the Surinam congeners may now be placed on record.

***Zonophora surinamensis* Needham**

Fig. 93-94, Pl. XIa

Holotype male

Zonophora surinamensis NEEDHAM 1944, Trans. Amer. Ent. Soc. 69, p. 219-221, pl. 16 fig. 17a-b (caudal appendages).

This species was described after a unique male specimen from Mapaoni, Brazil (not Matapaoni as stated in the description). The holotype from the Odonata collection at Cornell University, Ithaca, New York (Cornell Holotype No. 3538) was kindly lent to me for observation in July 1963. A label was also received on which was written, doubtless in Dr. D. C. GEIJSKES's handwriting: "Mapaoni (boven Jari) Braz. Sur. 9.11.1940 Schmidt leg." The specimen was very well preserved, but the left wings were missing. They had apparently been removed, although no slide containing them was enclosed. The right pair of wings was somewhat damaged. The following characters were observed and may now be added to those described in Table 3 of the 1963 paper: There are no cross veins in

the supratrangles; the costal edge of the pterostigma of the front wing is 4.8 mm long and that of the hind wing 5.1 mm.

I have completed the original description with drawings of the genitalia of the second abdominal segment. These drawings are attached, together with a photograph of the anal appendages.

Zonophora batesi Selys

Fig. 95-96, Pl. XIb

Larval exuvia

In 1944 Professor J. G. NEEDHAM described a Gomphid larva from Surinam which he referred to the genus *Zonophora* by exclusion. The description was based on a

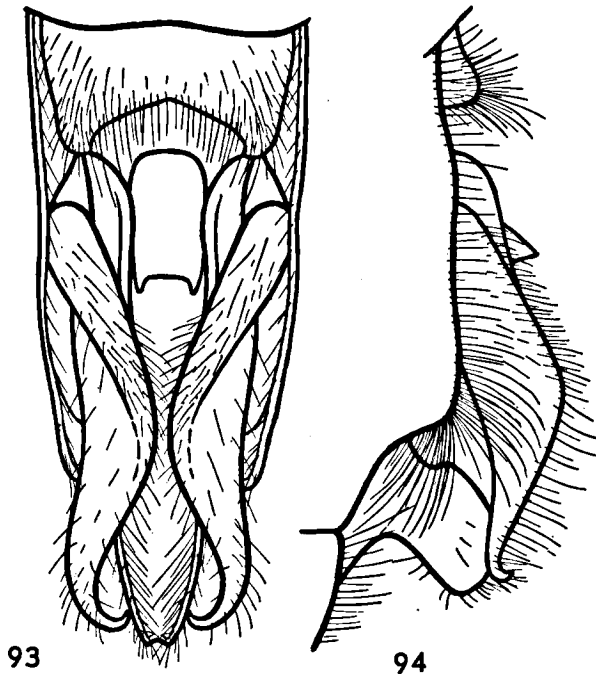


Fig. 93-94. *Zonophora surinamensis* Needham, holotype male. — 93. Genitalia, ventral view. 94. The same, right lateral view.

single female cast-off skin that was obtained by Dr. D. C. Geijskes at a creek in the vicinity of Zanderij I (not Lanary I as stated in the description) on September 2nd, 1942 (Trans. Amer. Ent. Soc. 69, p. 221-222, pl. 16 fig. 20a (labium), 20b (tarsus), 20c (apical end of abdomen, although without reference)). The larval skin was also borrowed from Cornell University.

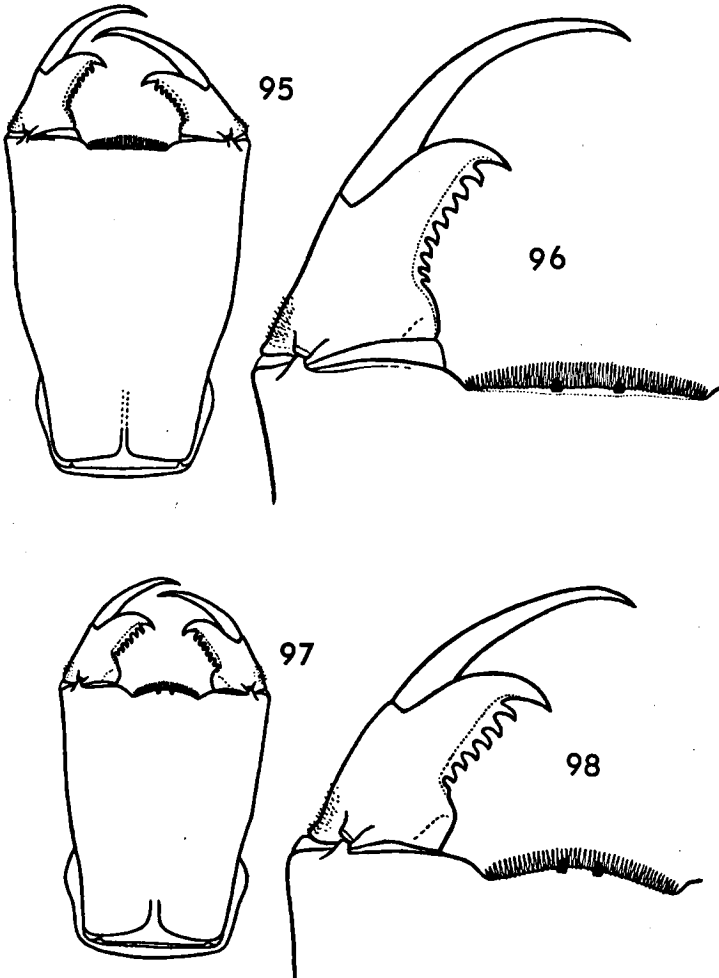


Fig. 95-96. *Zonophora batesi* Selys, from Suriname. — 95. Labium of larval exuvia. 96. Left lateral and median lobe of same labium.
 Fig. 97-98. *Zonophora calippus* Selys, from Suriname. — 97. Labium of larval exuvia. 98. Left lateral and median lobe of same labium.

There is in my collection an extensive series of similar exuviae all taken from the small creeks around Zanderij I (near the airport of Zanderij). The skins were picked off the stalks of aquatic plants and the twigs of the lower bank vegetation, through which the mature larvae had been able to climb for their transformation to the adult stage. *Zonophora* larvae of various stages were also secured (although not abundantly) by sifting mud or silt removed from the sloping sides of the embankments below the water level. The rearing of these insects was always a failure; they died in captivity before any ecdysis, probably because there was not adequate food in the silt which partly filled the tin in the cage.

The *Zonophora* larval exuviae obtained from the above-mentioned creeks can be divided into two series which are chiefly distinguished from each other by a very striking difference in the size of their specimens (see Plate XIb). Of the two known regional representatives of this genus, *Zonophora batesi* is the larger and so the reference of the exuvial material to this species is at once evident.

The larval cast-off skin used for the accompanying drawings and photograph is that of a female. Its specific locality and date on which it was secured are: Upper Coropina, Dauwdropkamp (now "Zwemplaats Cola-Kreek"), August 27th, 1958. The dimensions are: total length 35.5 mm; length of abdomen 23 mm (caudal appendages included); greatest width of abdomen 8.5 mm; width of head over the eyes 6 mm (cranium widest behind the eyes); length of posterior femur 6.5 mm.

Zonophora calippus Selys

Fig. 97-98, Pl. XIb

Larval exuvia

The specimens of the second series of *Zonophora* larval exuviae mentioned above are uniformly smaller in stature than those of *Zonophora batesi*. They may be referred to the other local species, *Zonophora calippus*. Its larva is here recorded for the first time. The larval structure differs from that of the preceding species in the following particulars: the abdomen is relatively narrower and the anal appendages are relatively longer; the lateral spines on abdominal segments eight and nine are about two-thirds the middorsal length of the tenth segment and the tips of these spines are more strongly incurved and upcurved; the labium is relatively shorter, the front margin of the median lobe slightly convex and the inner sides of the bases of the lateral lobes are more expanded; there are fewer (six or seven) teeth before the end hook of the lateral lobe.

The larval cast-off skin used for the photograph is that of a female and was apparently left behind at transformation to the adult stage. It was obtained on November 17th, 1962, near Zanderij at Pontji Creek (Pontjibrug). The dimensions are: total length 30.5 mm; length of abdomen 20.5 mm (caudal appendages included); greatest width of abdomen 6.5 mm; width of head over the eyes 5.5 mm; length of posterior femur 5 mm. The epiproct (superior appendage) is 4 mm long and is a trifle shorter than the paraprocts (inferior appendages). The cerci (lateral appendages) are 1 mm long and as long as the middorsal length of the tenth abdominal segment.

The drawings of the labium were made from a larval cast-off skin taken from the same specific locality, but on October 27th, 1962.

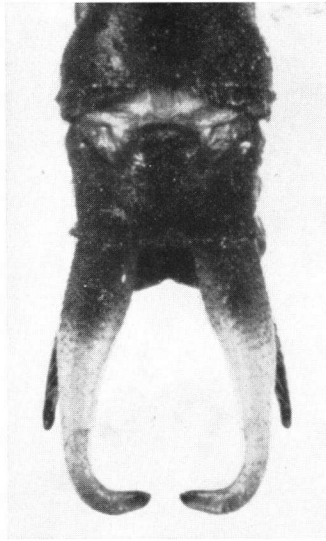


Plate XIa. *Zonophora surinamensis* Needham, holotype male.
Caudal appendages, dorsal view.

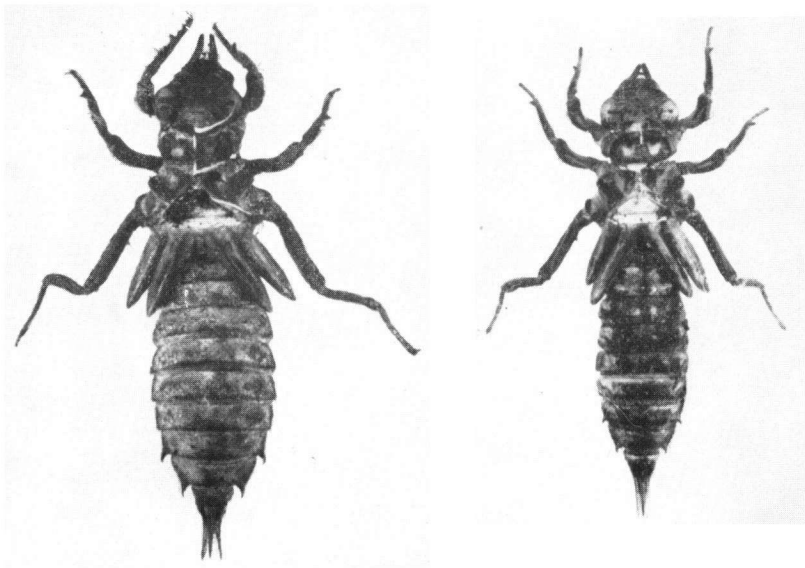


Plate XIb. *Zonophora batesi* Selys (left) and *Zonophora calippus* Selys (right),
dorsal view of larval exuviae from Suriname.