SHORT COMMUNICATIONS

AN UNKNOWN GOMPHID LARVA FROM SURINAM, POSSIBLY PROGOMPHUS GEIJSKESI NEEDHAM, 1944 (ODONATA)

JEAN BELLE

Onder de Beumkes 35, Velp (Gld), The Netherlands

Received March 22, 1972

A description is given of a gomphid exuvia collected in the Lawa River, Surinam. The specimen probably belongs to *Progomphus geijskesi* Needham, which is common in the region.

INTRODUCTION

A single, unknown gomphid larval cast-off skin was found by me on the sandy bank of an island in the Lawa River near Benzdorp, Surinam, on September 20, 1960.

The exuvia seems to belong to one of the two genera *Progomphus* Selys and *Erpetogomphus* Selys having the wing-sheaths divergent to rearward. It agrees with *Progomphus* larva No. 14 from Venezuela (NEEDHAM, 1941) in labial features, in having the middle coxae as far apart as the anterior ones, and in having the first two pairs of tibiae armed with well-developed burrowing hooks, but it differs markedly from it by the form of the abdominal outline, and in having a quite different third antennal segment. It resembles that of some studied larvae of *Erpetogomphus* by the form of the abdomen which is more or less thickset, depressed and rather abruptly narrower at the apex but it seems to differ from that genus in having the movable hook of the labium set about two-thirds of the length of the lateral lobe, in having the lateral caudal appendages about half the length of the superior appendage, and in having the third

antennal segment broadly flattened. Unfortunately the venation in the empty wing-sheaths is so faintly discernible (except the principal veins) that it is not possible for me to make out from it any characteristic to help toward determination of its generic placement. A species of *Erpetogomphus*, though, has never been encountered in Surinam whereas *Progomphus geijskesi* has frequently been collected along its rivers. For that reason I suppose that the larval skin belongs to this species. The size and the fact that *Progomphus geijskesi* is a border-line member of the genus are in agreement with such a supposition.

DESCRIPTION OF THE LARVAL EXUVIA (MALE)

Measurements: Total length 15 mm; length of abdomen 9.5 mm; greatest width of abdomen 4.5 mm; width of head over the eyes 3.5 mm; length of posterior femur 3 mm.

A clean, naked, nearly patternless larval skin, scarcely provided with hairs on all lateral margins of head, thorax and abdomen, except for a patch of hairs between compound eyes and bases of antennae. Anterior margin of labrum fringed with short stiff hairs.

Head scurfy pubescent but with a conspicuous, central, circular, blackish bare spot on labrum, and with some bare scars on rear of head especially on bulging hind angles of cranium.

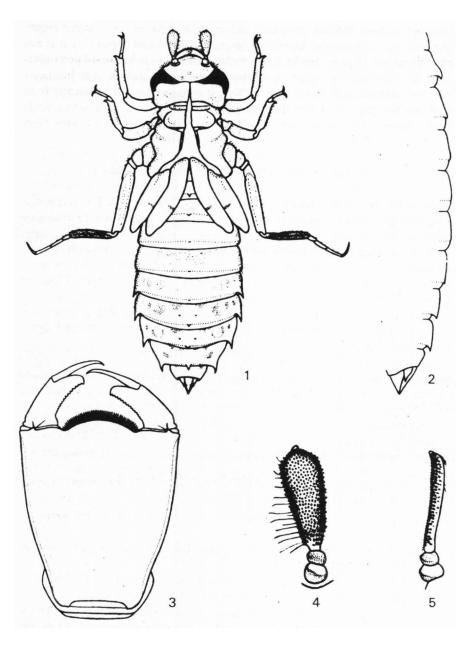
Antennae shaped as shown in Figures 4 and 5. Third segment very depressed, regularly broadened from base forward and slightly upcurved at apex. Superior surface of third segment densely besprinkled with very short black stubbles. Fourth segment vestigial.

Labium shaped as shown in Figure 3. Rear hinge of labium reaching to middle coxae. Mentum regularly widened from basal hinge forward. Median lobe broad, covering nearly half the breadth of the mentum, the free border evenly convex and regularly and densely fringed with slender, sharply pointed pale scales. Lateral lobes parallel-sided on basal two-thirds, the inner border slightly concave and crenulate, the apex incurved to a small tooth. Movable hook about twice as long as portion of lateral lobe beyond base of movable hook, the acute tip incurved.

Wing-sheaths strongly divergent to rearward, the tips reaching to well on fourth abdominal segment.

Legs slender and nearly devoid of hairs but hairy on outer sides of first two pairs of tibiae and on ventral and dorsal margins of posterior tibiae.

Abdomen depressed, widest on segment 7, rather abruptly narrower on apical segments. Dorsal outline of abdomen shaped as shown in Figure 2. There are dorsal hooks on segments 2 to 9; the ones on 2, 8 and 9 well-developed; the ones on 3 and 7 very small; the ones on 4, 5 and 6 vestigial. Segments 6 to 9 with well-developed lateral spines, smallest on 6, the ones on 7, 8 and 9 about equal



Figs. 1-5. Progomphus geijskesi Needham (supposition): (1) larval exuvia, dorsal view; — (2) outline of abdomen, left lateral view; — (3) labium of larval exuvia, external view; — (4) right antenna, dorsal view; — (5) the same, right lateral view.

in size. Caudal appendages somewhat longer than segment 10. Superior appendage as long as inferiors and with a pair of small dorsal processes near midlength. Lateral appendages about half the length of superior appendage.

Body brown-yellow. Apical segments of abdomen with a weakly developed brownish pattern shaped as shown in Figure 1 and predominantly formed by the darker scars. Wing-sheaths darker at level of nodus. Posterior tibiae markedly darker (blackish), including marginal hairs. Tarsi and claws pale.

In the Rijksmuseum van Natuurlijke Historie at Leiden (ex coll. Geijskes) there are four exuviae and one immature larva which are doubtlessly conspecific with the larval skin here described. All specimens were taken in Surinam. The locality data are: Nassaugebergte, Creek. km. 11.2, March 15, 1949, one immature larva (preserved in alcohol); Marowijnekamp, Nassaugebergte, bank of river on roots, October 12, 1953, D.C. Geijskes, two exuviae (preserved dry); Coppename, Kaaimanston, Leguaneneiland, August 22, 1957, J. Geijskes, two exuviae (preserved in alcohol).

REFERENCES

- BELLE, J., 1966. Surinam dragonflies of the genus *Progomphus*. Stud. Fauna Suriname 8: 1-28, figs. 1-50, pls. 1-4.
- HAGEN, H.A., 1885. Monograph of the earlier stages of the Odonata. Trans. Amer. Ent. Soc. 12: 219-291.
- NEEDHAM, J.G., 1941. Life history studies on *Progomphus* and its nearest allies. Trans. Amer. Ent. Soc. 67: 221-245, pl. 20.
- NEEDHAM, J.G., 1944. Further studies on neotropical gomphine dragonflies. Trans. Amer. Ent. Soc. 69: 171-224, pls. 14-16.
- NEEDHAM, J.G. & M.J. WESTFALL, Jr., 1955. A manual of the dragonflies of North America (Anisoptera). Cal. Press: 615 pp., 341 figs.
- SELYS LONGCHAMPS, E. de, 1854. Synopsis des Gomphines. Bull. Acad. Belg. (2) 21: 23-112 (3-93 sep.).
- SELYS LONGCHAMPS, E. de & H.A. HAGEN, 1858. Monographie des Gomphines. Mem. Soc. r. Sci. Liège 11: 257-720 (viii + 460 sep.), 23 pls., 5 tabs.