

SHORT COMMUNICATIONS

A NEW SPECIES OF *APHYLLA* SELYS, 1854 FROM PERU
(ANISOPTERA: *GOMPHIDAE*)

JEAN BELLE

Onder de Beumkes 35, Velp 6200, The Netherlands

Received and Accepted August 28, 1976

Aphylla robusta sp. n. (♂ holotype, ♀ allotype: Tingo Maria, Monson Valley, Dept. Huanuco) is described and illustrated.

INTRODUCTION

Through the kindness of Professor Dr. Minter J. Westfall, Jr. (Gainesville) I was entrusted with material of a big gomphine from Peru for identification. I am grateful for the opportunity to study this apparently new species and for the permission to place it on record.

APHYLLA ROBUSTA SPEC. NOV.

Figures 1-5

Material. — P e r u: Dept. Huanuco, Tingo Maria (2200 ft), Monson Valley, 8.X.1954, 1 ♂, 1 ♀ (holotype and allotype, respectively), leg. E.I. Schlinger and E.S. Ross, (Florida State Collection of Arthropods, Gainesville).

M a l e (left superior caudal appendage broken off). — Total length 73 mm; abdomen 56 mm; hind wing 42 mm; costal edge of pterostigma in fore wing 5.5 mm; third femur 7 mm.

Face brown with green markings. Labrum with a symmetric pair of green spots. Base of mandibles green. Anteclypeus green on lateral sides. Lateral sides of postclypeus with a green spot bordering postclypeal suture. Superior surface of frons dark brown at base, with a broad green anterior band widening at level of lateral ocelli. Frontal ridge of frons greenish yellow for entire length. Vertex

dark brown except for a green spot in middle of concave area behind postocelary ridge. Occipital plate green. Rear of head brown but green along lower part of temporae. Labium and adjacent mouth parts brown.

Prothorax dark brown but middle lobe green on dorsum and with a green spot on lateral sides.

Pterothorax dark brown with well-defined green stripes, its colour pattern shaped as shown in accompanying diagram.

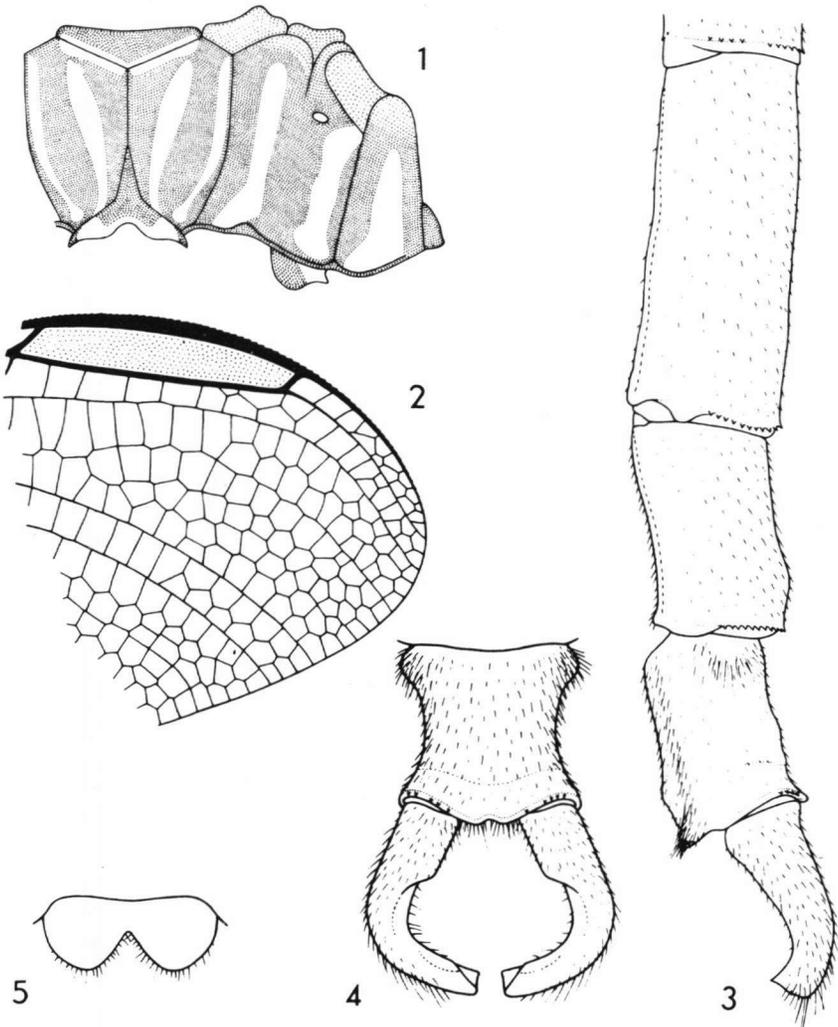
Femora reddish brown but inner side of first femora green. Tibiae much darker reddish brown than femora. Tarsi and claws black. Lamina tibialis of first tibiae reaching to a point half the way along tibia. Third tibiae about two-thirds the length of third femora. Third tarsi about two-thirds the length of third tibiae.

Wings hyaline. Venation blackish brown, including costal edge. Pterostigma yellowish brown, surmounting 7-8 cells. Basal subcostal cross-vein present. Antenodal and postnodal cross-veins of first series 15:22-20:14/16:16-17:16 in fore and hind wings, respectively. Second primary antenodal cross-vein the sixth in right fore wing, the seventh in other wings. Intermedian cross-veins 13-14/8-8 in fore and hind wings, respectively. Between R1 and M1 near apex of pterostigma two rows of cells in left wings, and a doubled cell in right wings. Tip of wings with two rows of cells between R1 and wing margin. Trigonal interspace in fore wings two to three cells wide but starting with three rows of cells against triangle, that in hind wing starting with a row of three cells against triangle followed by two rows of cells two cells long counting anterior rqw. Triangle in fore wings three-celled, the cross-veins tri-radiate from centre. Triangle in left hind wing three-celled, in right hind wing two-celled. Subtriangle in left fore wing three-celled, in right fore wing four-celled, in hind wings one-celled. Supratriangle in fore wings with two cross-veins, in hind wings with one cross-vein. Hind wings with four paranal cells, four (left) and five (right) postanal cells, a weakly developed anal loop of two cells, a four-celled anal triangle, and area posterior to Cu2 five to six cells wide.

Abdomen predominantly dark brown. Sides of segment 1 with two green spots. Segment 2 with green middorsal stripe, the sides with a small green spot near mid-height of posterior margin, and a green spot behind and on posterior side of auricle. Accessory genitalia of common type. Venter of segments 8, 9 and 10 orange. Lateral dilatations of segments 8 and 9 very narrow, brown, and without denticles. Dorsum of segment 10 reddish brown but dorso-apical rim dark brown. Width of dorso-apical rim a quarter the length of segment. Posterior dorsal margin of segment 10 with a small median excision, and with a few black denticles at level of base of superior caudal appendages.

F e m a l e (an old specimen; wings damaged). — Total length 72 mm; abdomen 55.5 mm; hind wing 46.5 mm; costal edge of pterostigma in fore wing 5.6 mm; third femur 8 mm.

Very similar to holotype regarding stature and coloration but pale markings on face somewhat larger. Lateral expansions of segments 8 and 9 orange, very narrow, and denticulated at apex only, those of segment 8 becoming twice as broad at apex. Vulvar lamina one-sixth the length of ninth sternum, its poster-



Figs. 1-5. *Aphylla robusta* spec. nov.: (1) diagram of pterothorax of holotype male; - (2) tip of left fore wing of holotype male (transposed); - (3) apical segments of abdomen of holotype male, right lateral view (transposed); - (4) tenth abdominal segment and caudal appendages of holotype male, dorsal view (restored); (5) vulvar lamina of allotype female, ventral view.

ior margin deeply excised V-shaped, the two lobes somewhat swollen. Sides of segment 9 with a small orange spot bordering middle of lateral expansion. Segment 10 orange on lateral sides, the dorso-apical rim black and one-sixth the length of segment, the posterior dorsal margin entirely denticulated. Relative length of abdominal segments 7, 8, 9, and 10 about as 28:18:13:10, with the anal appendages 11 on same scale of length.

Wings brown-tinged. Two basal subcostal cross-veins in each fore wing, one basal subcostal cross-vein in each hind wing. Antenodal and postnodal cross-veins of first series 19:24-26:19/19:17-19:18 in fore and hind wings, respectively. Second primary antenodal cross-vein the eighth in fore wings, the seventh in hind wings. Costal space of right fore wing with two doubled cells, that of left fore wing with one doubled cell (the dividing cross-vein partly developed). Near apex of pterostigma between R1 and M1 two rows of cells in left fore wing, a doubled cell in right wings, and a single row of cells in left hind wing. Tip of wings with a single row of cells between R1 and wing margin. Intermedian cross-veins 14-15/9-9 in fore and hind wings, respectively. Triangle in left fore wing four-celled, in other wings three-celled. Subtriangle in right fore wing four-celled, in left fore wing and right hind wing three-celled, in left hind wing one-celled. Supratriangle in right fore wing with three cross-veins, in left wings with two cross-veins, in right hind wing with one cross-vein. Hind wings with five paranal cells, five postanal cells (right), a weakly developed anal loop of two cells, and area posterior to Cu2 five to six cells wide.

The nearest relative of the present new species is *Aphylla producta* SELYS, 1854. But *A. robusta* is a much more robust species while its more bluntly tipped wings exhibit a conspicuous denser-neuration. The two rows of cells and the doubled cells between the veins R1 and M1 near the apex of the pterostigma (as well as the two rows of cells between R1 and costa at the wing tips of the holotype) are not yet found in any other congener. In size *A. robusta* approaches *A. theodorina* (NAVÁS, 1933) and *A. williamsoni* (GLOYD, 1936).

REFERENCES

- BELLE, J., 1972. Further studies on South American Gomphidae (Odonata). *Tijdschr. Ent.* 115: 217-240; figs. 1-39.
 GLOYD, L.K., 1936. Three new North American Gomphidae. *Occ. Pap. Mus. Zool. Univ. Mich.* 326: 1-18; pls 1-3.
 NAVAS, L., 1933. Insectos Suramericanos. *Rev. Acad. Madrid* 29: 191-198; Figs. 11-17.
 SELYS LONGCHAMPS, E. de, 1854. Synopsis des Gomphines. *Bull. Acad. Belg.* 21 (2): 23-112 (3-93 sep.).
 SELYS LONGCHAMPS, E. de & H.A. HAGEN, 1858. Monographie des Gomphines. *Mém. Soc. r. Sci. Liège* 11: 257-720 (VII + 460 pp. sep); 23 pls; 5 tabs.