

## A new *Cyanogomphus* (Odonata).

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(Plates VIII, IX)

Three specimens of *Cyanogomphus* have been recorded. Each is the type of a new species. The genus was established by de Selys in 1873 (Trois. Add. Syn. Gomph.) for the new species *waltheri*, known from a single male from Rio Janeiro, Brazil. Its relationships with *Epigomphus* and *Agriogomphus* were discussed and analyzed for several characters. Perhaps the most striking single character of *C. waltheri* is the remarkable shape of the tenth abdominal segment where the lower posterior border is cut out with the resulting peculiar relative positions of the bases of the superior and inferior appendages.

The second specimen was described by de Selys (Ann. Soc. Ent. Belg. xxxviii, 1894) as *C. ? demerarae*. This specimen was from Demerara, British Guiana, and unfortunately lacked the last four abdominal segments. (The text is confusing on the extent of the injury; at one place it is stated 7 segments 13 mm.; at another the 5th-10th segments lacking; in the text 6 segments are described.) The anal triangle is 2-celled, and brief mention is made of the accessory genitalia. It is much smaller than *C. waltheri* and de Selys remarks, "C'est une des plus petites Gomphines connues," adding that it will be necessary to know the abdominal appendages before deciding certainly that it belongs to the genus *Cyanogomphus*.

The third specimen is a female from Atoyac in Vera Cruz, Mexico, described by Calvert (B. C. A.) as *C? tumens*. The specific name refers to a peculiar swelling on the rear of the head above, behind the eyes "the swollen portions continuous with the occiput and extending outward and downward along each posterior eye margin to about the level of the upper surface of the frons; when the head is viewed from the side the point where the swelling ceases inferiorly is seen to coincide with a posteriorly directed obtuse angulation of the posterior eye margin." This character is not mentioned for de Selys' two species, though I believe it probably exists in both. In

*tumens* the most remarkable venational character, in the light of its probable relationship, is the relative position of the arculus and the proximal angle of the subtriangle—in the front wings the arculus is widely basal to the proximal angle, and in the hind wings they are about on the same level (compare with wing venation in the two species figured in this paper.) This is the only reason I see for holding the generic position of the species in doubt. It has the distal side of the triangle of the front wing straight as described for *C? demerarae*.

**Cyanogomphus conchinus\*** n. sp. (Plates viii, ix, figs. 1, 6-11).

♂. Abdomen 32 mm.; hind wing 23.5 mm.

Face greenish brown, labrum slightly paler and clearer green, browner at base, extreme lower edge black or dark brown; rhinarium browner, the nasus again lighter and the frons in front darker; genae brown. Frons above, vertex and occiput obscure reddish brown; frons in front shaded greenish; antennae black; transverse keel posterior to lateral ocelli distinctly tri-lobed; occiput posteriorly straight, without a posterior keel or edge, but rounded off, with short scarcely discernible hair; occiput laterally on either side behind the eyes swollen as described by Calvert (B. C. A.) for *tumens* (see note above under that species). Rear of head reddish brown; labium dull yellow.

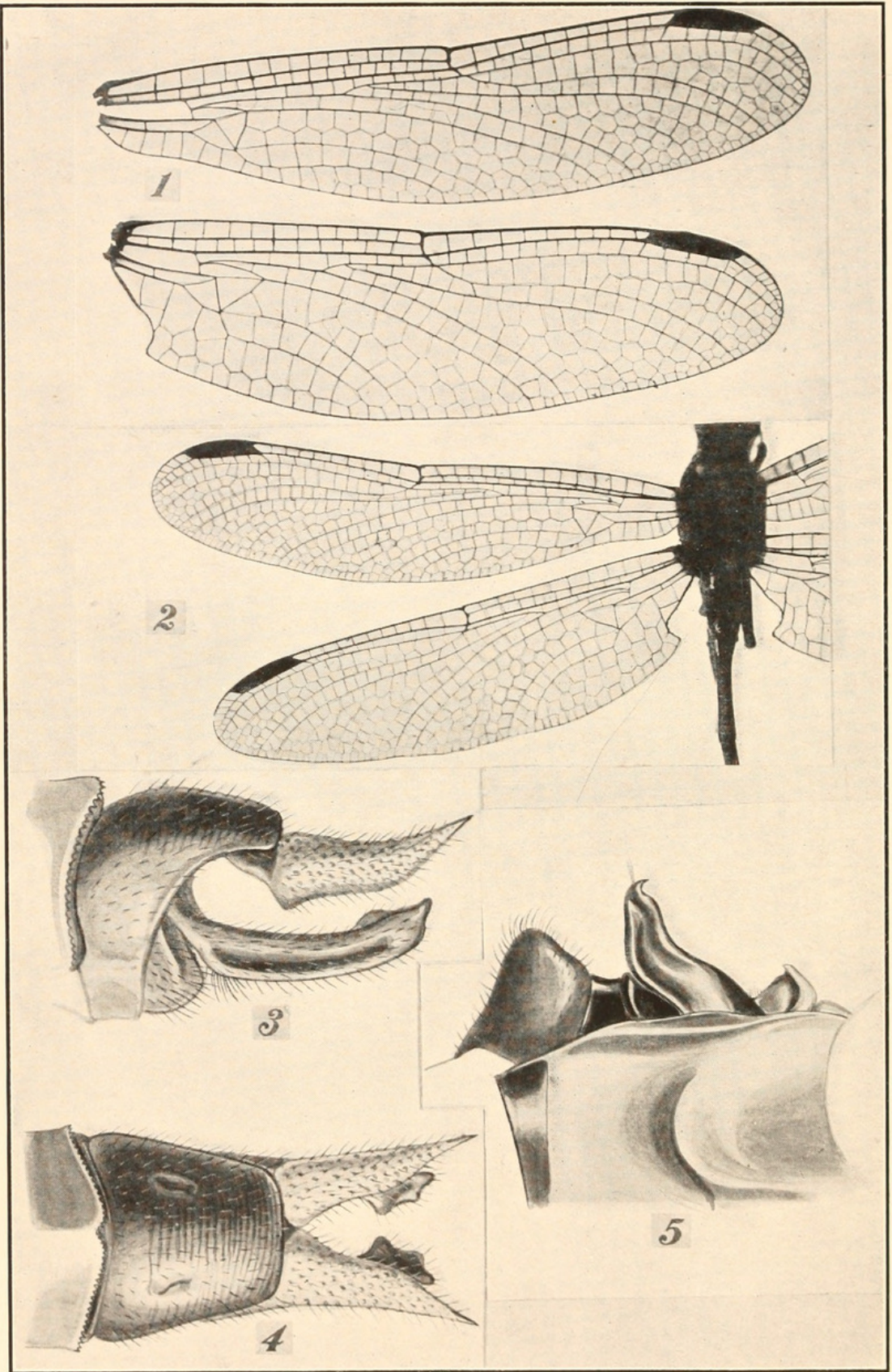
Prothorax brown, markings if any obscure.

Thorax robust; above brown, on either side, starting at the antealar sinus, an obscure bluish stripe reaching about two-thirds the distance to the mesothoracic crest; its lower end just inside the upper end of a short yellow stripe which extends down on to the mesothoracic crest; a bluish or greenish obscure mesothoracic half-collar, divided at the middle and not joined, or if so very obscurely, with the yellow dorsal stripe at either extremity. An indistinct narrow pale bluish antehumeral stripe which passes below on to the humeral suture; a very narrow and more obscured posthumeral stripe of the same color. Mesepimeron black or nearly so, obscurely pale yellow over a very restricted area above, and more extensively and clearer posteriorly below. Mesinfraepisternum nearly black, paler below. Metepisternum similar to mesepimeron, but yellow below more extensive and clearer; metinfraepisternum largely yellow, brown bordered. Metepimeron broadly brown along the second lateral suture, except above where the brown shades out into yellow which occupies the balance of the sclerite. Beneath pale yellow.

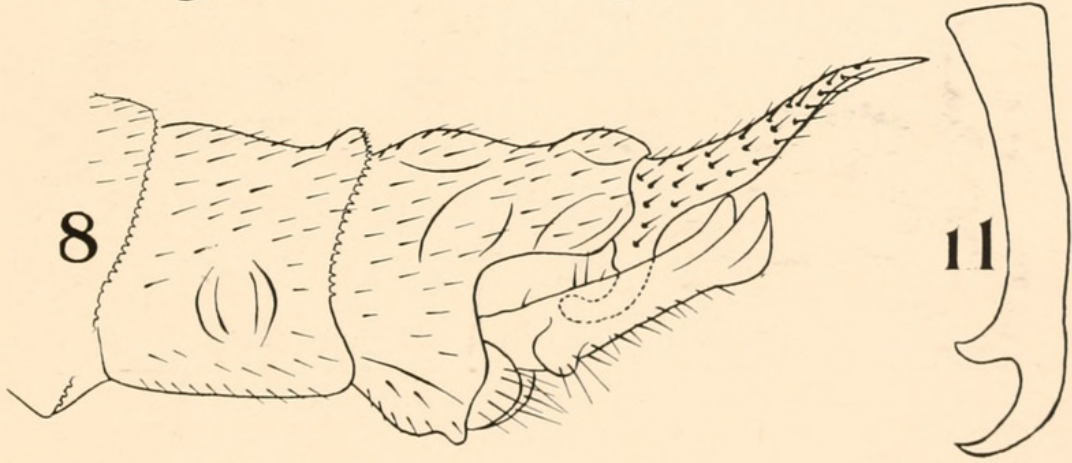
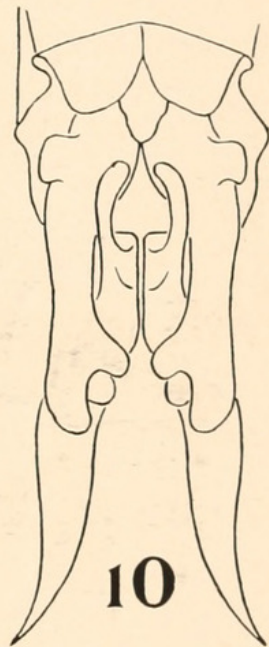
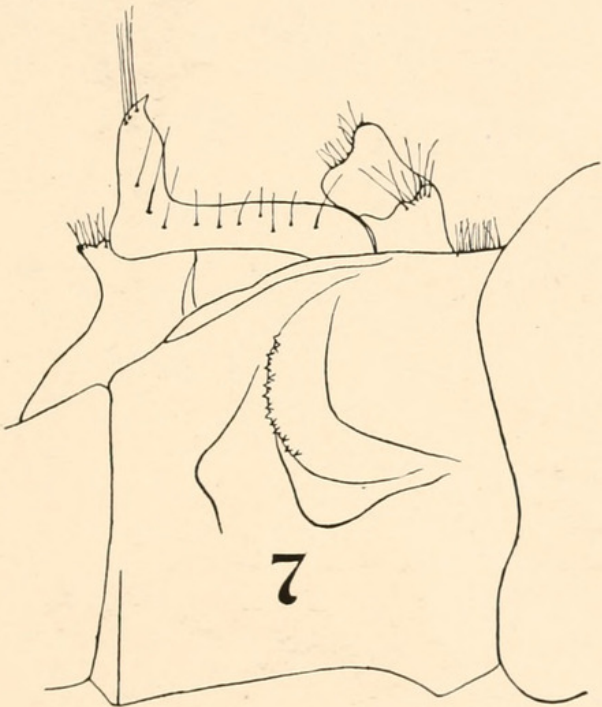
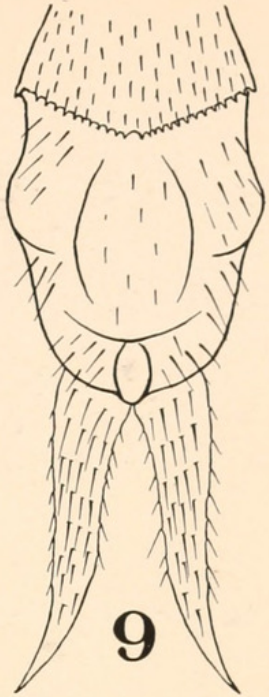
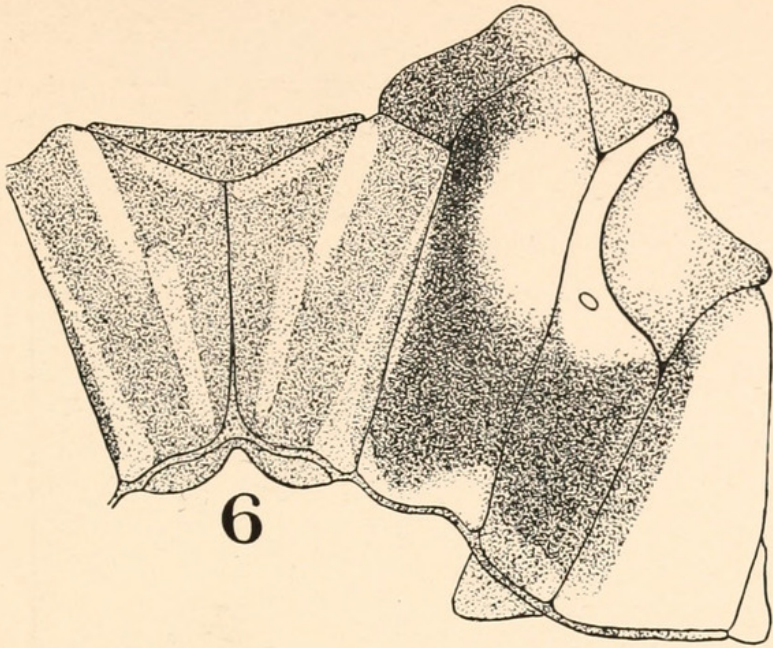
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\* Referring to the shell-like first hamules.





CYANOGOMPHUS CONCHINUS, 1; C. WALTHERI, 2-5.—WILLIAMSON.



CYANOgomPHUS CONCHINUS—WILLIAMSON.





Williamson, E.B. 1916. "A new Cyanogomphus (Odonata)." *Entomological news, and proceedings of the Entomological Section of the Academy of Natural Sciences of Philadelphia* 27, 167–172.

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