

**CORA CHIRIBIQUETE SPEC. NOV.,  
A NEW DAMSELFLY SPECIES FROM COLOMBIA  
(ZYGOPTERA: POLYTHORIDAE)**

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The new sp. is described from the Sierra de Chiribiquete of Colombian Amazonia. Holotype ♂: Colombia, Sierra de Chiribiquete, Puerto Abeja, 5-VII-1996; to be deposited in USNM, Washington, DC. It belongs to the *modesta* group of G.H. Bick & J.C. Bick (1991, *Odonatologica* 20: 453-458), and can be distinguished from all other Polythoridae by transverse gold bands on the hind wings.

**INTRODUCTION**

The Colombian Sierra de Chiribiquete is a series of upland formations that cover 20,000 km<sup>2</sup> from north of the Rio Caquetá into the southern part of the Orinoco drainage. On a short visit to the area in July 1996 we stayed on the south bank of the Rio Mesay, opposite the 12,000 km<sup>2</sup> Chiribiquete National Park, in the wood house known as Puerto Abeja (Fig. 1).

The most interesting feature of the area around Puerto Abeja is the rocky sandstone hills, "immense flat-topped ridges with one side sloping gently toward the forest floor, and the other a [300 metre] wall of yellow stone surmounted by jutting strata draped in vegetation" (DAVIS, 1996). At the base of these hills is a layer of igneous rock, relating the Chiribiquete to the ancient Guyanan and Brazilian Shields, and setting it off from the rest of the Amazon basin. On top, grassland is "interspersed with dense brush of low gnarled shrubs, an island of savannah perched [300 metres] above a tropical rain forest." (DAVIS, 1996). Perhaps because of this geological structure the area may be less biologically diverse than the forest near Araracuara 80 km to the south, where more than 1200 species of vascular plants were recorded from ten 0.1 ha plots (DUIVENVOORDEN, 1994). STILES et al., (1995) recorded

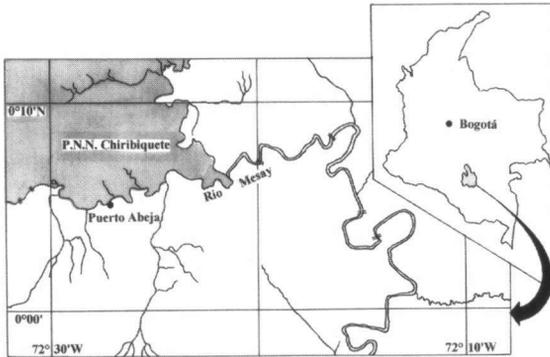


Fig. 1. Map showing the location of Puerto Abeja, where collections were made.

77 species of birds from the Chiribiquete, all at very low density, which the authors attribute to the "low productivity and poor nutrient content of the very shallow, sandy soil." The bulk of the avifauna shows much closer affinity with that of the savannas and sandy-belt forests of the Orinoco region than with the humid forest of

Amazonia. Mammals are perhaps more diverse, with more than 60 small mammals and seven primates recorded from the very small part of the area that has been investigated (Patricio von Hildebrand, pers. comm.).

Apart from 119 species of butterflies that have been recorded (Patricio von Hildebrand, pers. comm.), the insects are virtually unknown. Of 14 species of Zygoptera we collected at a shallow, chemically thin (5.4 mg/l TDS), acidic (pH 5.3) stream at Puerto Abeja, six are new (R.W. Garrison, pers. comm.). In this paper we describe one of these, a new species of the genus *Cora*.

### *CORA CHIRIBIQUETE* SP. NOV.

Figures 1-8

**Material.** — **Holotype** ♂: COLOMBIA, Sierra de Chiribiquete, Puerto Abeja, 0°4'44"N, 72°26'50"W, 5-VII-1996. — **Allotype** ♀: Colombia, Sierra de Chiribiquete, Puerto Abeja, 4-VII-1996. Air-dried specimens (not acetoned); colours somewhat paler than colours in life (the latter are described below). Both specimens will be deposited in the National Museum of Natural History in Washington, D.C.

**Etymology.** — The name *chiribiquete* refers to the area from which the specimens were collected.

**MALE (holotype).** — **Head** (Fig. 2). — Width across eyes, 58 mm; interocular distance, 27 mm. Setae relatively few and inconspicuous. Vertex and frons matte black with a pair of yellow postocular spots and a pair of yellow spots between the antennae; gena yellow with a central black spot; clypeus shiny black with a yellow spot on each side; anterior margin of clypeus brown; labrum shiny black with two large yellow spots; antennal sockets and scape yellow with black laterally, remainder of antenna black; scape, 0.3 mm; pedicel, 0.6 mm; base of mandible yellow, biting surface brownish black; maxillae yellow, except palp and lacinia black.

**Thorax.** — Prothorax (Fig. 3). — Anterior lobe of pronotum black with yellow corners; middle lobe black, with extensive yellow laterally; hind lobe entirely black.

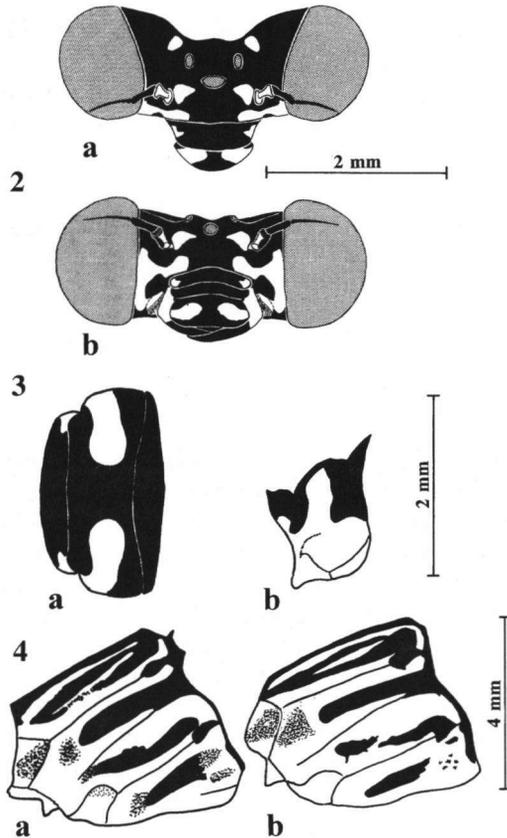
Pterothorax (Fig. 4a). — Mesepisterna black along dorsal carina, greenish yellow

laterally with a broad black stripe enclosing a yellow band; black spot at dorsal end of humeral suture; mesepimeron greenish-yellow with an undivided black band, ventrad of which is a brown spot. Metathorax similar but no yellow band within metepisternal stripe or brown spot ventrad of metepimeral stripe.

Legs. — Pro-femur mainly black becoming greenish-yellow proximally anteriorly on outer surface, greenish yellow more extensive on inner surface; meso-femur similar but greenish-yellow more extensive on outer surface, inner surface entirely pale; meta-femur mainly greenish-yellow, entirely so on inner surface, with black posterior border extending onto outer surface distally; femora with 2 rows of black spines on anterior surface; 8 or 9 spines in each row; proximal spines on pro-femur about 0.5 width of femur, distal spines about equal to femur width; on meso-

and meta-femora all spines about 1-1.5 times the width of the femur. Tibiae and tarsi black. Tibiae with 2 rows of black spines on anterior surface, 10-15 spines in each row; proximal spines of pro-tibia 3x width of tibia, distal spines 0.5 width of tibia; proximal spines of meso-tibia 2x, distal spines 0.5, width of tibia; proximal spines of meta-tibia 2.5x width of tibia, distal spines equal to width of tibia.

Wings. — Forewing: Length 29 mm, maximum width 7.25 mm, petiole 2.0 mm, base-nodus 11.7 mm, nodus-pterostigma 14.7 mm, antenodals 32 (r), 33 (l); postnodals 36 (r), 40 (l); pterostigma, red-brown, 2.0 mm along lower side, surmounting 4.75 cells. Hindwing (Fig. 5a): Length 28 mm, maximum width 7.7 mm, petiole 2.0 mm, base-nodus 10.0 mm, nodus-pterostigma 14.25 mm, antenodals 27(r), 27 (l); postnodals 36(r), 37(l); pterostigma, red-brown, 1.75 mm along lower



Figs 2-4. *Cora chiribiquete* sp. n.: (2) head of male, (a) dorsal and (b) anterior view; — (3) prothorax of male, (a) dorsal and (b) lateral view; — (4) pterothorax, lateral view of (a) male and (b) female.

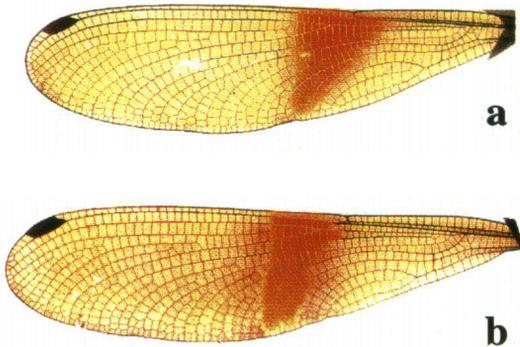


Fig. 5. *Cora chiribiquete* sp. n., hind wing of (a) male and (b) female.

side, surmounting 4 (r), 4.5 (l) cells. Both wings hyaline. Hind wing with inverted, triangular, gold band extending full width of the wing, 4.8 mm along Sc-C, decreasing to 0.5 mm at posterior edge; triangle begins at antenodal 23 and extends to postnodal 8, except no pigmentation in first row before nodus.

**Abdomen** (Fig. 6a). — Mainly black with green

lustre; segment 1 yellow laterally; segment 2 with yellow lateral band and brown and pale yellow bands ventrally; segment 3 with yellow lateral band to 0.80 length of segment; segment 4 with thin yellow lateral stripe for 0.75 length; segments 5-7 with a small lateral yellow spot at anterior end of each segment.

**Caudal appendages** (Fig. 7). — Superior appendages 1.24 mm, with ventral branch at mid-length; tip of ventral branch yellow, remainder black.

**Penis** (Fig. 8). — Terminal segment (glans) of *modesta*-group shape, with horns 0.16 mm or about 0.20 length of terminal segment of penis.

**FEMALE (allotype)**. — **Head**. — Colour pattern as in male. Width across eyes, 62 mm; interocular distance, 30 mm.

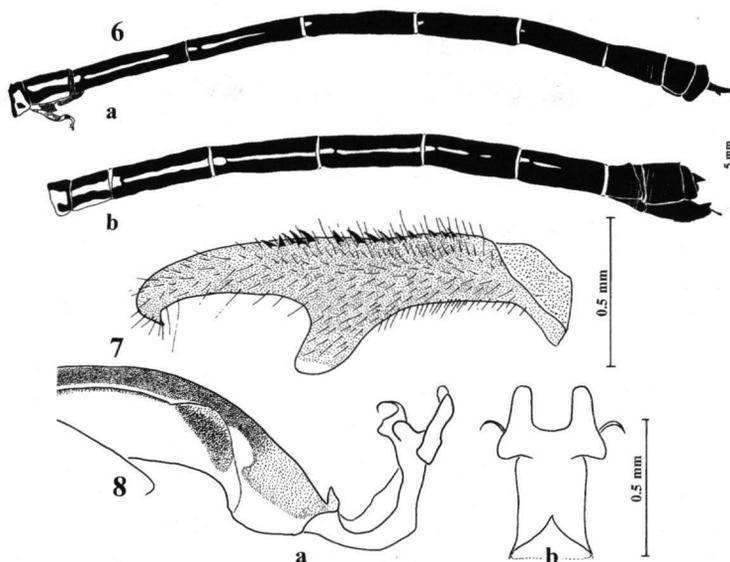
**Thorax**. — Prothorax and pterothorax (Fig. 4b) as in male, except mesepisternal stripe joined to humeral spot and metathoracic stripes lighter in colour.

Legs similar to male.

**Wings**. — **Forewing**: Length 29.4 mm, maximum width 7.5 mm, petiole 2.0 mm, base-nodus 12.3 mm, nodus-pterostigma 14.8 mm, antenodals 34 (r), 33 (l); postnodals 38 (r), 37 (l); pterostigma, red-brown, 2.0 (r) and 2.3 (l) mm along lower side, surmounting 6 (r) and 4.75 (l) cells. **Hind-wing** (Fig. 5b): Length 28.65 mm, maximum width 7.7 mm, petiole 2.24 mm, base-nodus 10.5 mm, nodus-pterostigma 14.85 mm, antenodals 27(r), 25 (l); postnodals 38 (r), 35 (l); pterostigma, red-brown, 2.0 mm along lower side, surmounting 4.75 (r), 5 (l) cells. Both wings hyaline. Hind wing with a transverse, gold band, between post-nodals 2-10 on anterior edge and extending the full width of the wing; 3.44 mm along leading edge of wing, decreasing to 2.4 mm at posterior edge.

**Abdomen** (Fig. 6b). — Segments 1 and 2 as in male; segments 3-5 with lateral yellow band extending to posterior end of each segment; on segment 6 lateral yellow band gradually ending at 0.75 of segment length; yellow band on segment 7 gradually ending at 0.5 of segment. Ovipositor black.

**REMARKS**. — *Cora chiribiquete* belongs to BICK & BICK's (1990) South



Figs 6-8. *Cora chiribiquete* sp. n.: (6) abdomen, lateral view of (a) male and (b) female; — (7) male superior appendage, lateral view; — (8) penis, (a) lateral view and (b) dorsal view of terminal segment.

American subgroup of the *modesta* group, which now contains 8 species. *C. chiribiquete* is separable from all other species in this sub-group except *C. terminalis* and *C. munda* by the mesepisternal pattern, from *C. terminalis* by the lack of dark apical wing markings, shorter penis horns and shorter fore wings, and from *C. munda* by the longer fore-wings and the mid-hind-wing band. Indeed, *C. chiribiquete* can be distinguished from all other species in the family by the gold bands on the hind wings (BICK & BICK, 1985, 1986, 1990, 1991, 1992).

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