

***Diplosmittia caribensis*, a new Orthoclaadiinae (Diptera: Chironomidae) from the Dominican Republic**

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The genus *Diplosmittia* was erected by Sæther (1981) based on *Diplosmittia harrisoni* from St. Lucia and St. Vincent in the British West Indies. Prior to the present study the genus comprised nine species, all except *D. carinata* Sæther were known only from Neotropical Region (Ashe & O'Connor, 2012). During sampling in the surroundings of a highly organic polluted river, in the National Botanical Garden in Santo Domingo, Dominican Republic, the present second author collected several imagines of *Diplosmittia* that did not fit any taxon treated in the recent review of the genus (Pinho *et al.* 2009). In the present paper, the male of this new species is described and illustrated.

Alcohol-preserved specimens were dissected and slide mounted in Euparal. Morphological terminology and abbreviations follow Sæther (1980) and Epler (1988). Measurement are taken according to Epler (1988). The holotype is deposited in the entomological collection of the Museum of Comparative Zoology (MCZ), Harvard University, USA and paratypes are deposited in the Museo Nacional de Historia Natural (MNHN), Dominican Republic and Zoologische Staatssammlung München (ZSM), Germany.

***Diplosmittia caribensis* Wiedenbrug & Silva sp. n.**

Type material. Holotype male, **Dominican Republic**: Santo Domingo, National Botanical Garden, Gran Cañada river, 18°29'41.5"N, 69°56'59.6"W, 8.vii.2015, F. L. Silva. Paratypes: 4 males same data as holotype.

Etymology. Derived from Caribbean, referring to the type locality in the Dominican Republic.

Diagnosis. The species *Diplosmittia caribensis* sp. n. can be separated from the group of orthoclaids having wing, antenna and eyes bare by the following combination of characters in the adult male: two weak acrostichals in mid scutum; wing with costal extension well developed; hypopygium with virga longer than one third of the phallapodeme length; gonocoxite with superior volsella weakly developed; gonostylus split in two lobes of nearly the same length, and anal point large, parallel sided, without crests, projecting beyond margin of tergite IX.

Description. *Adult male* (n = 5).

Size. Total length 1.63–1.79 mm. Wing length 0.90–0.95 mm. Total length/wing length 1.79–1.90. Wing length/length of profemur 2.47–2.63.

Coloration. Head brown; maxillary palp pale brown. Thorax pale brown, with dark brown vittae, postnotum, median anepisternum, preepisternum, and epimeron II; all legs pale brown. Abdominal tergites brown with bases of abdominal setae and anterior and posterior bands pale brown. Hypopygium pale brown with brown anal point.

Head (Fig. 1A). Eye bare, without dorsomedian extension. Antennae with 13 flagellomeres, flagellum 268–299 µm long, with pointed apex, diameter of pedicel 90–103 µm, AR 0.73–0.76, sensilla chaetica on flagellomeres 2, 3 and ultimate. Temporal setae consisting of 5–7 weak inner vertical and 3 strong outer verticals. Tentorium 116–131 µm long. Clypeus 87–110 µm long, 92–122 µm wide at largest part, bearing 5–6 setae. Cibarial pump 145–160 µm long, with anterior margin concave. Lengths of palpomeres 1–5 (in µm): 35–52; 55–61; 67–87; 67–73; 96–125. Third palpomere with 3 lanceolate sensilla clavata.

Thorax (Fig. 1B). Median anteprenotal lobes narrowed medially, anteprenotum without setae. Dorsocentrals 9–10; acrostichals 2 in median field; prealars 3. Scutellum with 4 setae. Striated area present between median anepisternum and postprenotal suture.

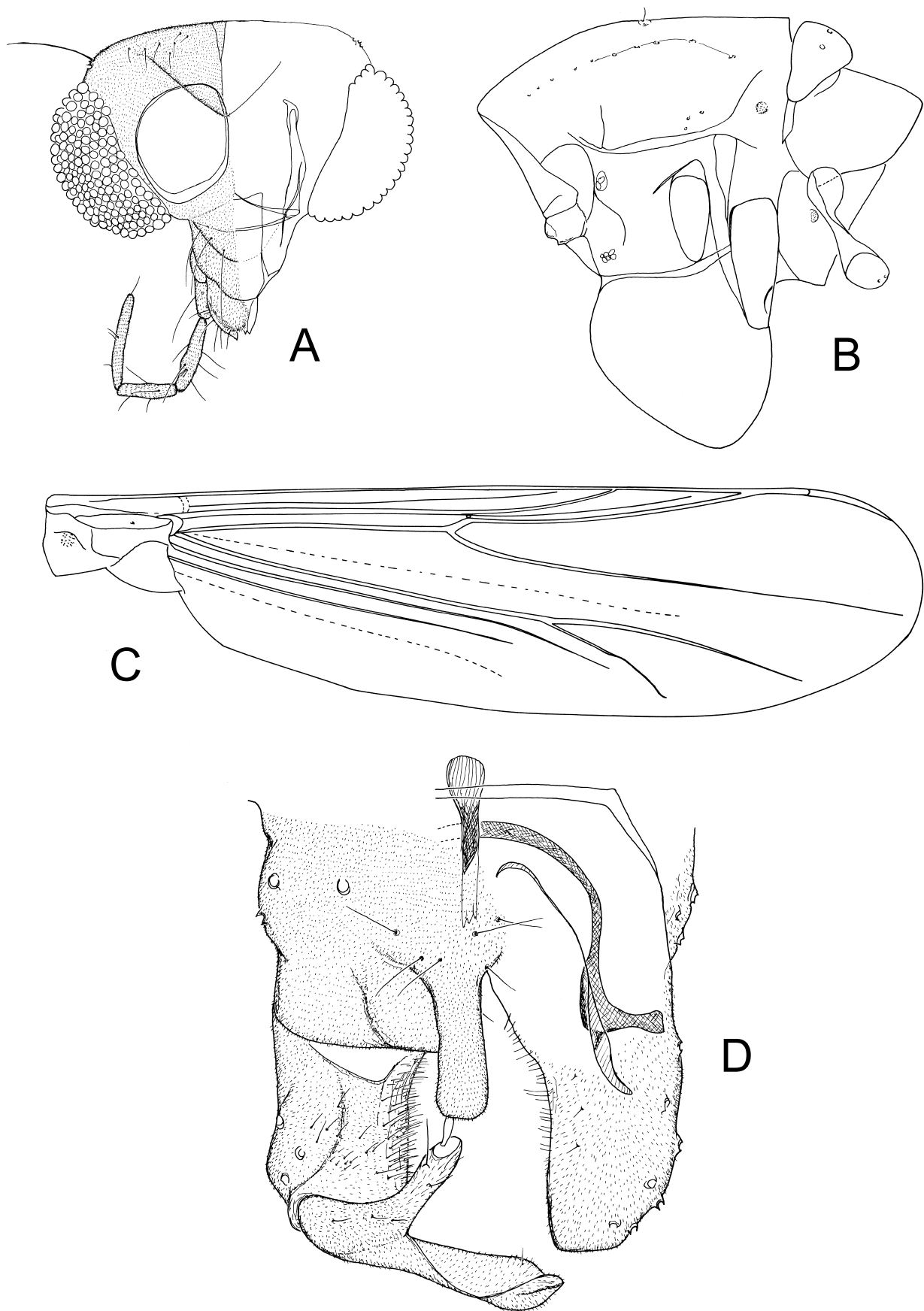


FIGURE 1. *Diplosmittia caribensis* sp. n.: adult male. (A) Head, right side sclerites. (B) Thorax, lateral view. (C) Wing. (D) Hypopygium; left side, dorsal view, right side, ventral view, tergite IX and gonostylus removed.

Wing (Fig. 1C). Width 0.2–0.3 mm, membrane without setae. VR 1.40–1.48. WW 0.23–0.34. Anal lobe weak. Costa 795–836 μm long; R_{4+5} ending proximal to apex of M_{3+4} , false vein almost reaching tip of wing. Cu_1 slightly sinuate. Brachiolium with one seta; other veins bare. Squama bare.

Legs. Fore leg: femur 341–372 μm long, tibia 413–454 μm long, width at apex of tibia 21 μm , spur of fore tibia 35–44 μm long, length of ta_1 – ta_5 (in μm): 165–186, 93–103, 62–72, 41, 41. LR 0.38–0.41, BV 3.71–4.22, SV 2.47–2.62. Mid leg: femur 372–434 μm long, tibia 434–475 μm long, width at apex of tibia 21 μm , spurs of mid tibia 15–23 μm and 17–23 μm long, length of ta_1 – ta_5 (in μm): 186–196, 93–103, 62–103, 41, 41, LR 0.39–0.45, BV 3.50–4.40, SV 4.10–4.89. Hind leg: femur 382–403 μm long, tibia 403–465 μm long, width at apex of tibia 21 μm , spurs of hind tibia 17–26 and 32–44 μm long, tibial comb with 10–12 bristles, length of ta_1 – ta_5 (in μm): 185–217, 103–114, 103–123, 41, 41, LR 0.46–0.51, BV 3.28–3.44, SV 3.71–4.17. Mid and hind leg with tarsomeres 1–3 with apical sinuous seta perpendicular to leg axis. Claws slender, hooked; pulvilli absent.

Hypopygium (Fig. 1D). Tergite IX with 1 median lateral seta, which may belong to the laterosternite, as strong as 3–4 setae on laterosternite IX. Anal point wide and almost parallel sided without crests; 52–61 μm long; 12–15 μm wide at base, with 7–10 thin small seta at the base and first half of anal point. Phallapodeme 81–89 μm long. Transverse sternapodeme 75–81 μm long. Virga strong, basally bulbous, 46–52 μm long. Gonocoxite 90–105 μm long. Superior volsella indicated as basal swelling of inner margin of gonocoxite. Main lobe of gonostylus 49–60 μm long; lateral lobe 67–81 μm long. GcR 1.63–1.82; megaseta 7–12 μm long. HR 1.52–1.71; HV 2.68–3.23.

Female, pupa and larva. Unknown.

Taxonomy. In the key to Central America Chironomidae (Spies *et al.* 2009), *Diplosmittia caribensis* **sp. n.** will key to *Diplosmittia* (couplet 139) by having a gonostylus deeply split into two long branches, however the anal point is not triangular, as stated in this key. Using the key of Pinho *et al.* (2009), *D. caribensis* will key to *D. boraceia* Pinho, Mendes *et al.* Andersen, due to the well-developed costal extension, absence of anal crests, elongated virga and anal point projecting beyond posterior margin of tergite IX. The long parallel sided anal point of *Diplosmittia caribensis* is another character which will also allow to distinguish *D. boraceia* from the latter.

Moreover, in the key to some orthoclad genera by Ferrington & Sæther (2011), *D. caribensis* will key to *Pseudosmittia* Edwards (couplet 5); however, it is important to note that *Diplosmittia* was not included in their study. The two genera may be distinguished only by a combination of characters, since the two acrostichals in the midscutum, considered a diagnostic feature, is shared by both of them. Species belonging to *Diplosmittia* can be separated from those of *Pseudosmittia* by a volsella weakly developed or absent and the gonostylus split in two lobes. However, *P. tropis* Andersen, Sæther *et al.* Mendes, from Ecuador, also possesses a volsella weakly developed, whereas species belonging to the *P. uncata* group have the gonostylus divided into two lobes (Andersen *et al.* 2010; Ferrington & Sæther 2011). Ferrington and Sæther (2011) mention that *Diplosmittia* could eventually be included in *Pseudosmittia* as a junior synonym. As yet *Diplosmittia* seems to refer to the genus *Pseudosmittia*. However, it is expected that further information on females and immature stages could shed a light on the taxonomy of these two genera.

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