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NEW SPECIES OF FRESHWATER CRABS (CRUSTACEA: DECAPODA: PSEUDOTHELPHUSIDAE) FROM COLOMBIA

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Abstract.—Two new species of Pseudothelphusidae are described from Colombia. *Strengeriana chaparralensis*, n.sp. adds a fifth species to a primitive group of crabs from the Central Cordillera; its gonopod resembles that of its nearest geographic relative, *S. tolimensis* Rodríguez and Díaz, 1981. *Chaceus davidi*, n.sp. also belongs to a small genus of primitive crabs from the Sierra de Santa Marta; the gonopod has characters of both *Chaceus* and *Hypolobocera.* A geographical record is given for *Hypolobocera martelatani* Pretzmann, 1965, which was originally described from an unknown locality in "Columbia."

The northern Andes of Colombia is an area of high taxon density for the family Pseudothelphusidae (Rodríguez 1982). Of the three groups that occur sympatrically in the Andes proper and in the Sierra de Santa Marta, the Strengerianini is a primitive one that displays considerable variability in the structure of the male gonopod, while the other two groups, consisting of the genera *Neostrengeria* and *Hypolobocera,* exhibit a more homogeneous gonopod structure, but at the same time they appear very fragmented and are dispersed over a wider area. During examination of material in the Museo de Historia Natural, from the Instituto de Ciencias Naturales, Bogotá (ICN-MNH), we found two new Strengerianini. One of them is of particular interest since it displays characters in gonopod structure that are intermediate between the genera *Chaceus* and *Hypolobocera.*

Tribe Strengerianini Rodríguez, 1982
Genus *Strengeriana* Pretzmann, 1971
Strengeriana chaparralensis, new species
Figs. 1, 4a, d

Material.—Quebrada Piedras Blancas, Municipio Rioblanco, 900 m above sea level, Tolima Department, Colombia; 29 Sep 1983; M. R. Campos : 1 male holotype, cb. 35.3, cl. 21.2 mm (ICN-MHN N° CR 0525).—Vereda Betania, Municipio Chaparral, 850 m above sea level, Tolima Department, Colombia; 17 Jul 1983; M. R. Campos : 2 males, cb. 33.4 and 28.2 mm, cl. 25 and 17.5 mm.

Description.—The cervical groove is straight and shallow, deeper in its posterior half; it does not reach the margin of the carapace. The anterolateral margin has a shallow depression behind the orbit, followed by approximately 8 papillae regularly spaced on the anterior half, and approximately 8 minute teeth on the posterior half. The frontal lobes are wide but ill defined. The median groove is absent. The surface of the carapace behind the front is moderately inclined anteriorly and towards the midline. The upper border of the front is almost straight in dorsal view, well marked with a row of conspicuous, irregularly placed tubercles. The lower margin is strongly sinuous in frontal view. The surface of the front

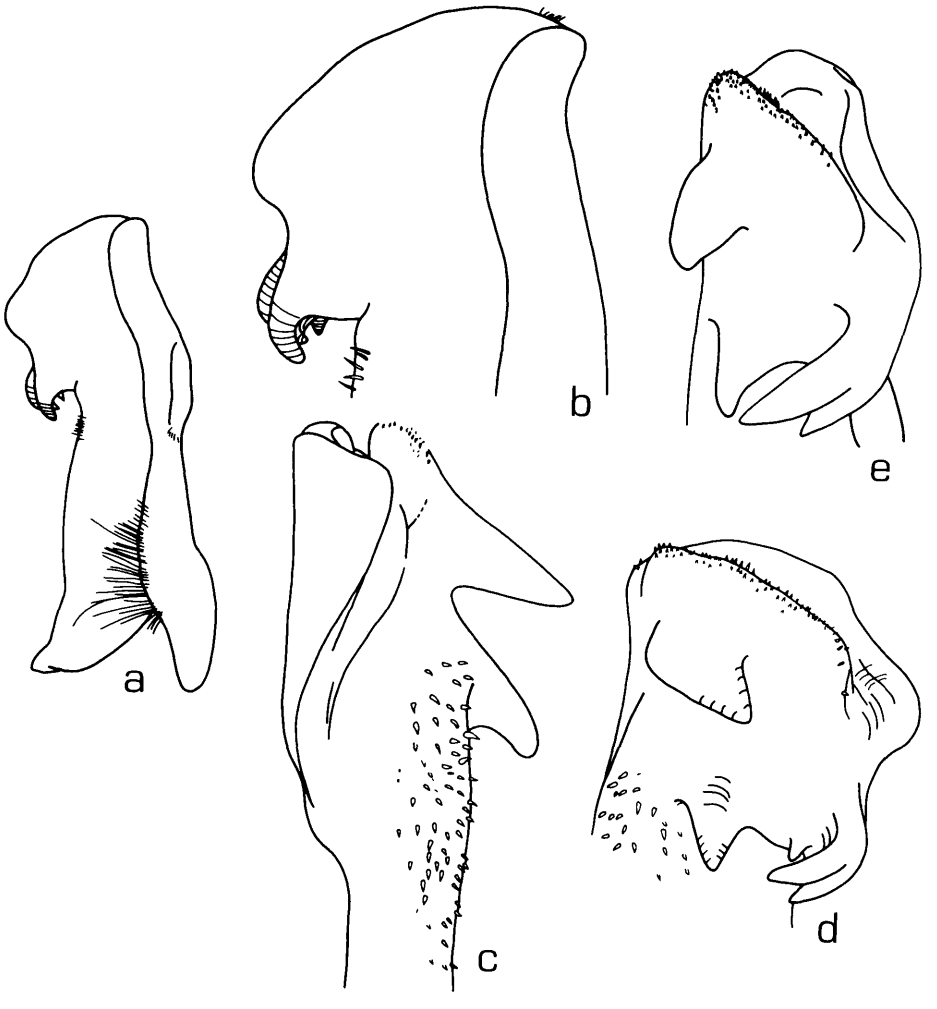

Fig. 1. *Strengeriana chaparralensis,* holotype, ICN-0525, left gonopod: a, Total view, caudal; b, Detail of apex, caudal; c, Lateral; d, Cephalic; e, Mesial.

between the upper and the lower borders is very narrow. The surface of the carapace is smooth, sometimes covered by small papillae not visible to the naked eye.

The palm of the larger chela is moderately inflated; the fingers do not gape. The exopod of the third maxilliped overreaches the lateral margin of the ischium. The orifice of the efferent branchial channel is almost closed by a spine at the jugal angle and by the production of the lateral lobe of the epistome.

The male gonopod is short and stocky; the marginal lobe is simple, with a short ridge on its lateral surface; the lateral lobe is produced cephalically to form with the cephalic lobe a long slit where the genital pore is located; the cephalic lobe bears 2 strong cephalically directed conical spines on its lateral surface, and another long and bifid spine on its mesial surface which is recurved and directed laterad and bears at its base a small spine. In addition to the strong caudal setae and the

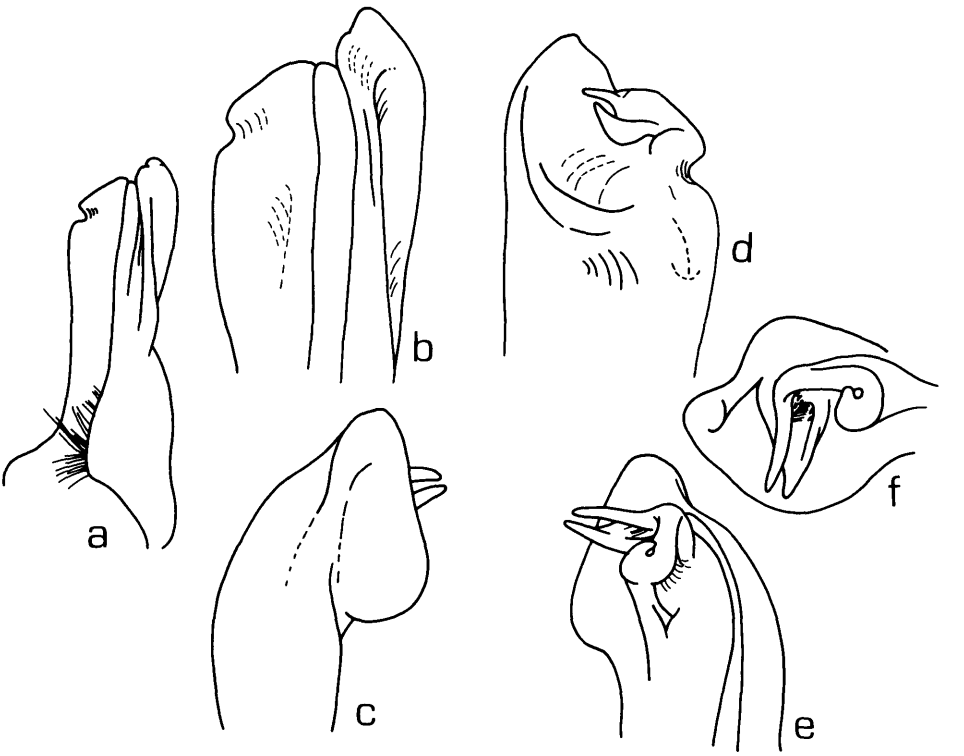

Fig. 2. *Chaceus davidi,* holotype. ICN-0083, left gonopod: a, Total view, caudal; b, Detail of apex, caudal; c, Lateral; d, Cephalic; e, Mesial; f, Apex in distal view.

small spines of the genital pore, the gonopod bears a large patch of small dark spines on the lateral side, small spinules over the distal border of the cephalic lobe, and a few tiny setae on the mesial side.

Size.—This is a small species, cb. 35.3 mm, but even so, it is the largest yet recorded for the genus.

Remarks.—The species is most closely related to *Strengeriana tolimensis* Rodríguez and Díaz, 1981. In both species the gonopod has two spines on the lateral side and a recurved bifid spine on the mesial side, with a small spine at its base, but all of these spines are weaker in *S. tolimensis.* The main difference between the gonopods of the two is the presence of a strong spinous process that extends laterally beyond the marginal process in *S. tolimensis,* but is lacking in *S. chaparralensis.*

Chaceus davidi, new species
Figs. 2, 4b, e

Material.—Ciudad Perdida, Sierra de Santa Marta, Magdalena Department, Colombia; 25 Jan 1982; C. Mejia: 1 male holotype: cl. 16.5 mm, cb. 29.0 mm (ICN-MHN N° CR-0083).

Description.—The cervical groove is shallow and almost straight, and reaches

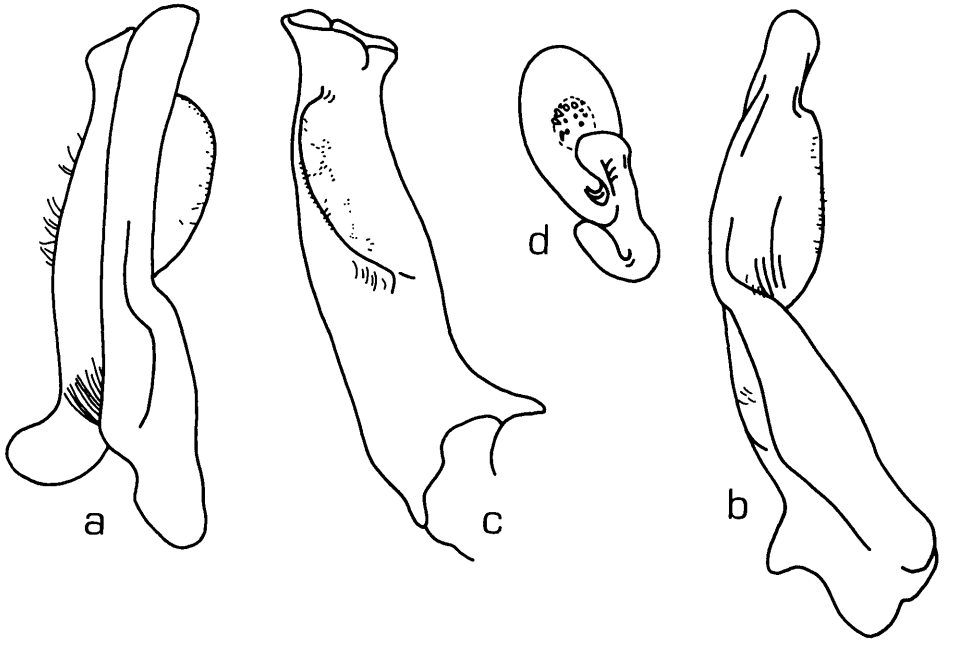

Fig. 3. *Hypolobocera marthelatani* (Pretzmann, 1965), from Inza, Cauca Department, Colombia, left gonopod: a, Caudal view; b, Lateral view; c, Cephalic view; d, Apex in distal view.

the lateral margin of the carapace. The anterolateral margin has a shallow notch behind the orbit, and a sharp angle at the place where the cervical groove meets the margin; it is completely devoid of teeth on its anterior half; the posterior half bears 20 small, ill defined teeth. The post-frontal lobes are weakly marked, the median groove is shallow and wide. The surface of the carapace behind the front is moderately inclined anteriorly and towards the midline. The front has a defined upper margin with ill defined tubercles; in dorsal and frontal view it is slightly bilobed; the lower margin is visible in dorsal view; it is strongly sinuous in frontal view. The carapace is smooth and shiny, with small punctae scattered all over its surface, not visible to the naked eye.

The chelipeds are very unequal in size; the palm of the larger chela is moderately swollen, without a tubercle at the base of the fingers; the fingers are moderately gaping towards midlength. The merus of the third maxilliped does not have a low angle on the distal half of its external margin; the exognath is 0.7 the length of the ischium. The orifice of the efferent branchial channel is closed by a spine on the jugal angle and by the production of the lateral lobe of the epistome. The male gonopod is stocky; the caudal lobe is strongly produced beyond the apex, with a strong ridge on its middle part; the spermatic channel is bordered by a finger-like projection and another triangular projection; the caudal margin behind these projections is typically rolled.

Size.—This is a small species. The holotype and only specimen has a cb. of 29.0 mm.

Remarks.—The species is most closely related to *Chaceus pearsei* (Rathbun,

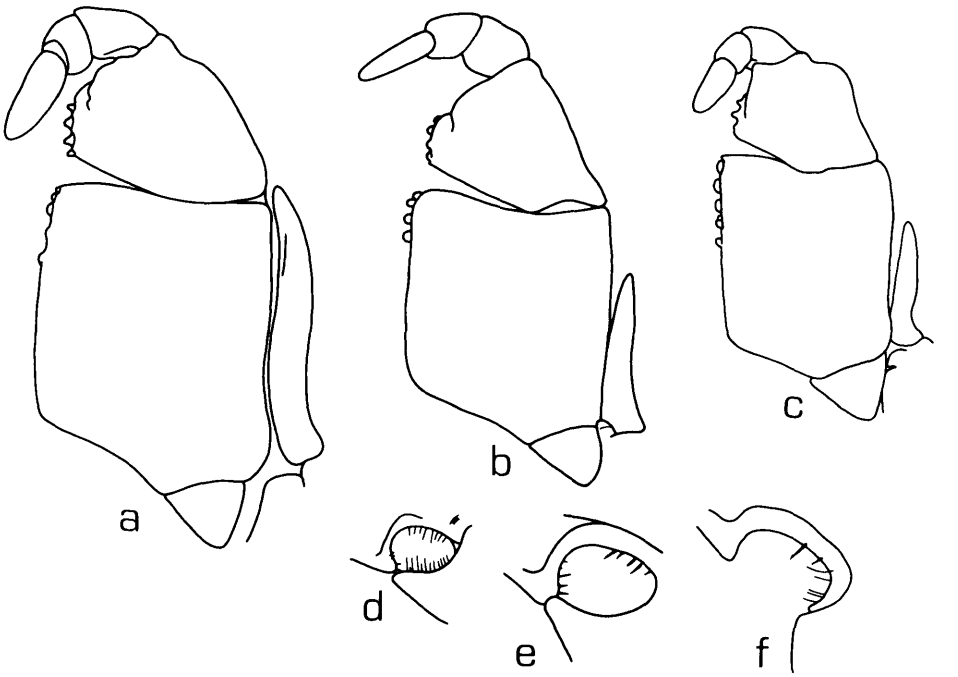

Fig. 4. Third maxilliped and left opening of branchial channel: a, d, *Strengeria chaparralensis*; b, e, *Chaceus davidi*; c, f, *Hypolobocera marthelatani.*

1915). The main differences between the gonopod of this species and the other in the genus is in the caudal lobe, which in *C. davidi* is strongly produced beyond the apex, and in the finger-like projection near the spermatic channel, which is smaller in this species, approximately of the same length of the triangular projection located below it. The gonopods of all species of *Chaceus* have the same basic elements. Rodríguez (1982) has theorized on the possible derivation of the genus *Hypolobocera* from an ancestral *Chaceus* based on the homology of the finger-like and triangular projections with the two papillae found near the spermatic channel in *Hypolobocera.* The present new species offers new support to this theory since these projections are surrounded by a ridge that somewhat resembles the button-shaped apex of *Hypolobocera* (Fig. 2c, f), and in caudal view there is an indication of the caudal ridge of this same genus.

Etymology.—The species is named in honor of David Campos.

Hypolobocera marthelatani (Pretzmann, 1965)
Fig. 3, 4c, f

Strengeria (*Strengeria*) *marthelatani* Pretzmann, 1965:6.
Hypolobocera (*Hypolobocera*) *marthelatami* Pretzmann, 1971:17; 1972:50.
Hypolobocera marthelatami (Pretzmann).—Rodríguez, 1982:52.

Material.—Municipio Inza, Cauca Department, Colombia; 12 Oct 1982: 1 male cl. 23.0 mm, cb. 14.2 mm (ICN-MHN N° CR-0087), 1 female cl. 25.5 mm, cb. 15.5 mm.

Descriptions.—Our specimens from the Cauca Department agree well with Pretzmann's description. The cervical groove is ill defined, consisting of a shallow oval depression on the posterior half, obsolescent on the anterior half. The anterolateral border of the carapace has approximately ten ill defined small papillae. The postfrontal lobes are small, round, almost obsolete. The median groove is absent. The carapace is regularly inclined towards the middle; this surface in frontal view forms a sinuous line which parallels the line, also sinuous, of the lower frontal margin. The upper margin of the front is strongly bilobed in dorsal view; there is not a defined ridge, but the carapace in this area curves regularly downwards. The front is low. The lower margin in frontal view is sinuous. The third maxilliped has a well developed external angle. The exognath is 0.9 the length of the ischium. The surface is smooth and shiny, with numerous pores not visible to the naked eye. The chelae in our specimens are moderately swollen. In Pretzmann's illustrations (1972, figs. 243, 244) they are considerably more inflated.

Size.—This is a small species. A mature female has a cb. of 25.5 mm.

Remarks.—The species is very similar to *Hypolobocera orientalis* Pretzmann, 1968, from which it can be distinguished only by the shape of the gonopod apex, which in *H. orientalis* is more evenly rounded (see Rodríguez 1982, fig. 26d), not elongate as in *H. marthelatani.* The original spelling of the species name was *marthelatani* (Pretzmann, 1965) although Pretzmann (1971, 1972) latter used the spelling *marthelatami.*

Acknowledgments

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