

CHACEUS CESARENSIS, A NEW SPECIES OF
FRESH-WATER CRAB
(CRUSTACEA: DECAPODA: PSEUDOTHELPHUSIDAE)
FROM COLOMBIA WITH A KEY
TO THE GENUS

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Abstract. — *Chaceus cesarensis*, new species, adds a sixth species to a genus of pseudothelphusid crabs restricted to high mountains in the Sierra Nevada de Santa Marta, in Colombia, and the Sierra de Perijá, between this country and Venezuela. The distribution of the genus is reviewed and a key is given to separate the known species.

The species of fresh-water crabs composing the genus *Chaceus* Pretzmann, 1965, notwithstanding their phylogenetic interest (Rodriguez & Campos 1989), are poorly known. *Chaceus pearsei* (Rathbun, 1915) was the only species known, until Rodriguez (1980) described a new species, *Chaceus motiloni* (= *Pseudothelphusa* sp. Rodriguez, 1980). In the last ten years knowledge about the genus has been accumulating rapidly and five species are now known (Rodriguez 1980, Campos & Rodriguez 1984, Rodriguez & Bosque 1990), despite the difficulties of collecting in the inaccessible regions of the Sierras of Santa Marta and Perijá inhabited by these crabs. Recently, the junior author had an opportunity to explore the Colombian watershed of the Sierra de Perijá, up to now rarely visited by zoologists. The present paper deals with a new species of the genus found in this area.

Tribe Strengerianini Rodriguez, 1982
Genus *Chaceus* Pretzmann, 1965
Chaceus cesarensis, new species

Fig. 1

Material. — Colombia, Cañón del Rio Manaure, 1 km from Finca El Suspiro, Serranía de Valledupar, Perijá, Departamento del Cesar, 2150 m; 22 Mar 1989; Angel L. Vilorio; 1 male holotype, carapace length

11.8 mm, carapace breadth 19.2 mm, fronto-orbital width 12.2 mm, deposited at the Reference Collection, Instituto Venezolano de Investigaciones Científicas, Caracas, Venezuela.

Description. — The carapace is moderately wide (carapace breadth/carapace length = 1.63) relative to other congeners. The cervical groove is straight, thin and shallow distally, wide and deep proximally; it does not reach the margin of the carapace. The antero-lateral border has a slight depression behind the orbit, covered by six low papillae, followed by approximately 15 ill-defined teeth or papillae. The postfrontal lobes are obsolescent, their positions marked only by two slight elevations of the carapace surface; the median groove is represented by a wide, shallow depression. The carapace between the postfrontal lobes and the front is inclined forward, slightly concave in frontal view. The upper margin of the front is slightly convex in dorsal view, not clearly defined except by a slight erosion in this area; the lower margin is almost straight. The front is low, higher toward the sides, advanced.

The larger cheliped has the palm moderately swollen; the fingers do not gape when closed. The exognath of the third maxilliped is 0.75 times the length of the ischium.

The first male gonopod is stocky, its distal

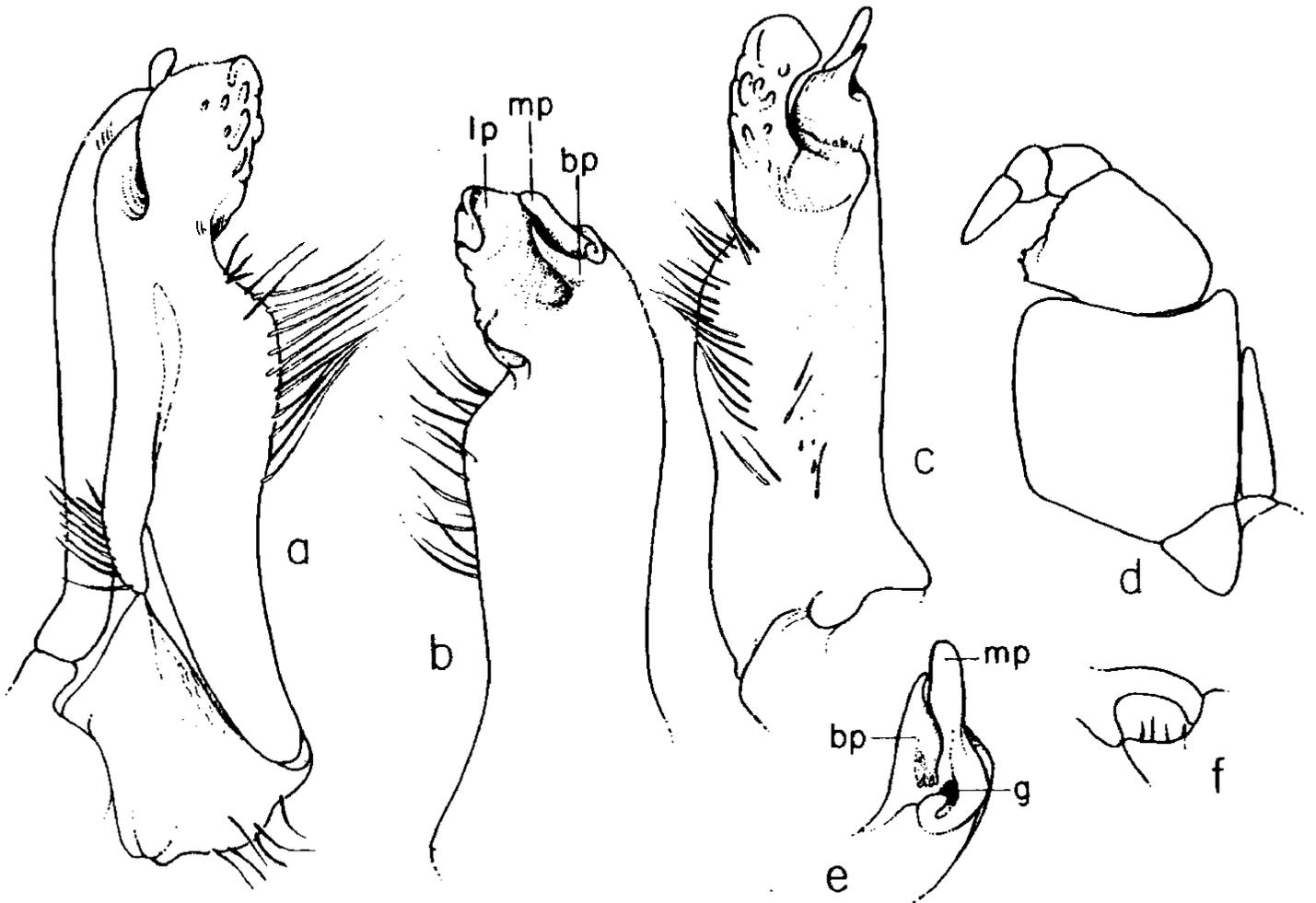


Fig. 1. *Chaceus cesarensis*, new species, holotype: a, Left gonopod, caudal view; b, Same mesial view; c, Same cephalic view; d, Third maxilliped, left; e, Detail of left gonopod gonopore area; f, Aperture of efferent channel; bp, marginal process; g, gonopore; lp, lateral process; mp, mesial process.

end is curved and directed mesially and, consequently, its terminal orifice opens in a plane perpendicular to the main axis of the appendage. The lateral process is well developed, bent over the marginal and mesial processes, with conspicuous and irregular ridges; it reaches the apex of the gonopod. The apical portion consists of a finger-like mesial process and a long, triangular, marginal process. The terminal orifice of the gonopod is surrounded by a few minute spines. There is a row of long plumose setae over the lateral expanded side of the gonopod and shorter setae on the caudal basal surface.

Etymology.—The specific name refers to the type locality in the Departamento del Cesar, Colombia.

Remarks.—*Chaceus cesarensis* resembles both *C. davidi* Campos & Rodriguez, 1984,

and *C. pearsei* Rathbun, 1915, in the lateral process of the gonopod which is well developed in relation to marginal and mesial processes. It resembles furthermore *C. pearsei* in the shape and development of the marginal and mesial process. However the present new species differs from all other species of *Chaceus* in the morphology of the lateral process, which is hood-like, and covered with conspicuous irregular ridges on its external surface.

The male holotype, although small, is fully mature, indicating that the present species is of small size as others in the genus.

As several species have been described since the last revision of the genus (Rodriguez 1982), a revised key to the species is presented below. The nomenclature of the processes on the gonopod's apex is shown in Fig. 1.

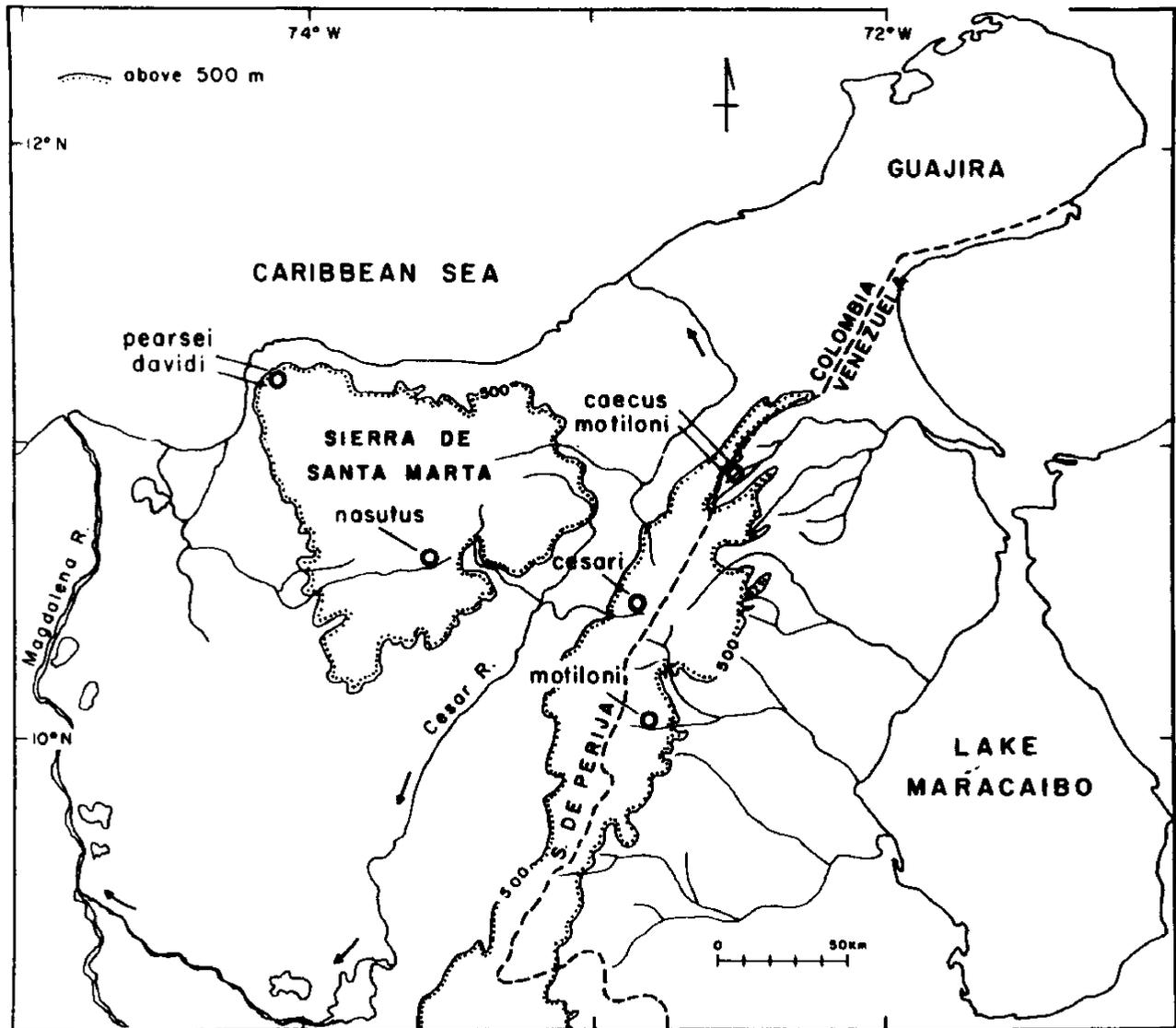


Fig. 2. Geographical ranges of the species of *Chaceus* in Colombia and Venezuela. Only the hydrology relevant to the distribution of the species is shown.

Key to the Species of the Genus *Chaceus*

- 1. Mesial and marginal processes of first gonopod forming two very elongated projections and directed horizontally *C. nasutus*
- Mesial and marginal processes forming a finger-like projection and a basal elongated spine directed mesodistally 2
- 2. Mesial and marginal processes equally or less developed than lateral processes 3
- Mesial and marginal processes conspicuously more developed than lateral processes 5
- 3. Mesial and marginal processes very

- reduced relative to lateral processes *C. davidi*
- Mesial, marginal and lateral processes equally developed 4
- 4. Lateral process subtriangular, with outer surface smooth *C. pearsei*
- Lateral process hood-like, with outer surface conspicuously wrinkled *C. cesarensis*
- 5. Lateral process developed, oval; epigeous species *C. motiloni*
- Lateral process rudimentary, foliose; cavernicolous species .. *C. caecus*

The species of *Chaceus* occupy scattered areas in the Sierra Nevada de Santa Marta, Colombia, and the Sierra de Perijá, in the border between Colombia and Venezuela

(Fig. 2), from 590 to 3000 m *Chaceus davidi* Campos & Rodriguez, 1984, and *C. pearsei* (Rathbun, 1915), have overlapping ranges in the northeastern slopes of the Sierra de Santa Marta. *Chaceus nasutus* Rodriguez, 1980, occurs on the southeastern slopes of the same Sierra. The range of *C. motiloni* Rodriguez, 1980, covers the Venezuelan slopes of the Sierra de Perijá, from the headwaters of the Rio Negro to the upper Rio Guasare. *Chaceus caecus* Rodriguez & Bosque, 1990, is known only from a cave located within the range of *C. motiloni*. *Chaceus cesarensis* is the only species known so far from the Colombian slopes of the Sierra de Perijá.

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