DILOCARCINUS LAEVIFRONS MOREIRA, 1901: A COMPLETE DESCRIPTION (Decapoda; Brachyura: Trichodactylidae)

por

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Abstract

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Dilocarcinus laevifrons Moreira, 1901, has been registered from Pernambuco (1901) and Amazon (1969) States, Brazil, but a complete description of the species was lacking. New records are here reported that expand the distribution of this species to the Colombian Amazon region, and the collected specimens permit a complete taxonomic description.

Key words: Brachyura, Trichodactylidae, Fresh water crabs, Taxonomy.

Resumen

Dilocarcinus laevifrons Moreira, 1901, había sido registrada para los Estados de Pernambuco (1901) y Amazonas (1969), Brasil, pero se carecía de una descripción completa de la especie. Los registros de la presente contribución extienden su distribución a la región amazónica de Colombia y el material recolectado permite una descripción taxonómica completa.

Palabras clave: Brachyura, Trichodactylidae, cangrejos de agua dulce, Taxonomía.

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1. Introducción

The species *Dilocarcinus laevifrons* Moreira, 1901, belongs to the family Trichodactylidae. Since the holotype was a female, it was not possible to Moreira describing and illustrating the gonopods. In addition the typical locality was not well established: "we found it in jar with several crustacean coming from Pernambuco; we believe accordingly that this species lives in the rivers of that state", Moreira, 1901. He assumed that the area of distribution of this species comprised the State of Pernambuco in Brazil.

Bott registered in 1969 a juvenile male from Cuieiras River, affluent of Negro River, joining it 60 km NW of Manaus of the Amazonas State. He only included two pictures of the carapace and one of the first male gonopod of a juvenile specimen.

Thus, at present time the description of the species *Dilocarcinus laevifrons* Moreira, 1901, is not complete, in particular because the first male gonopod description and illustration is an essential part for the taxonomic identification of the species. Thus, the purpose of the present paper is to complete the description of *Dilocarcinus laevifrons* by using specimens collected during faunistic surveys of the Colombian Amazon region in 1994.

The new records reported herein expand the distribution of this species to the Amazon region in Colombia. The material is deposited in Museo de Historia Natural, Instituto de Ciencias Naturales, Universidad Nacional de Colombia, Bogotá (ICN-MHN).

The terminology used for the morphology, in particular for the first male gonopod, follows Smalley (1964) and Rodríguez (1992). The abbreviations cl and cb stand for carapace length and carapace breadth, respectively.

Dilocarcinus laevifrons **Moreira, 1901**

Dilocarcinus laevifrons Moreira, 1901: 48, pl. 1, Fig. 2.

Trichodactylus (Dilocarcinus) laevifrons, Rathbun, 1906: 66.

Poppiana laevifrons, Bott, 1969: 51, pl.11, Fig. 20 a, b, pl. 21, 51. Rodríguez, 1981: 48. Rodríguez, 1992: 121.

2. Material

Amazonas Department, Parque Nacional Natural Amacayacu, Mocagua Island, 4 Apr 1989, leg. H. Castillo, 1 female, cl 16.7 mm, cb 21.1 mm (ICN-MHN-CR 0959). Amazonas Department, Corregimiento La Pedrera, Cerro Yupatí, Komeyafú Community, Guacaperiyá stream, 120 m alt., 7 Nov 1994, leg. M. R. Campos, 6 males, the largest cl 23.1 mm, cb 31.2 mm, the smallest cl 15.6 mm, cb 20.3 mm, 5 females, the largest cl 18.3 mm, cb 23.6 mm, the smallest cl 16.8 mm, cb 21.7 mm (ICN-MHN-CR 1392). Amazonas Department, Corregimiento La Pedrera, Cerro Yupatí, Uecherú stream, Komeyafú Community, 130 m, alt., 12 Nov 1994, leg. M. R. Campos, 7 males, the largest cl 19.3 mm, cb 25.5 mm, the smallest cl 12.8 mm, cb 16.3 mm, 7 females, the largest cl 28.8 mm, cb 37.5 mm, the smallest cl 14.9 mm, cb 19.0 mm (ICN-MHN-CR 1415). Amazonas Department, Corregimiento La Pedrera, Yukuna Community, Mirití River, Puerto Lago, 160 m alt., 18 Nov 1994, leg. M. R. Campos, 25 males, the largest cl 24.0 mm, cb 31.6 mm, the smallest cl 13.6 mm, cb 17.2 mm, 6 females, the largest cl 16.9 mm, cb 21.4 mm, the smallest cl 14.6 mm, cb 17.8 mm (ICN-MHN-CR 1439). Amazonas Department, Puerto Nariño, Tarapoto Lake, 3 Dec 1998, leg. I. Stephen, 1 female, cl 32.9 mm, cb 42.2 mm (ICN-MHN-CR 1760).

3. Description

(Based on 32 males and 22 females) Carapace suborbicular (Fig. 1F) with prominent, acute spine on external orbital angle. Lateral margin with 6-8 prominent, acute spines, behind spine of external orbital angle, approximately of equal size, directed anteriorly and interspine space with setae. Posterolateral ridge of carapace tuberculated, curved inwards and ends at some distance of ridge on the posterolateral angle of carapace. Front bilobed, bent downwards, but middle sinus retracted, leaving exposed middle portion of epistome in dorsal view, epistome strongly advanced, opening of efferent channels strongly arched, forming 2 well defined spouts. Orbits suborbicular in frontal view, lower orbital margin with 3-6 acute spines, decreasing in size laterally. Buccal angle with 2-3 spines. Dorsal surface of carapace convex, along antero-posterior axis, smooth, polished, covered by small papillae, regions not differentiated, epigastric lobes semicircular, anteriorly not well delimited, frontal surface flat continuous with surface of protogastric region. Postgastric pits well demarcated. Branchio-urogastric, branchio-cardiac, and brachio-intestinal grooves faintly demarcated, urogastric groove absent.

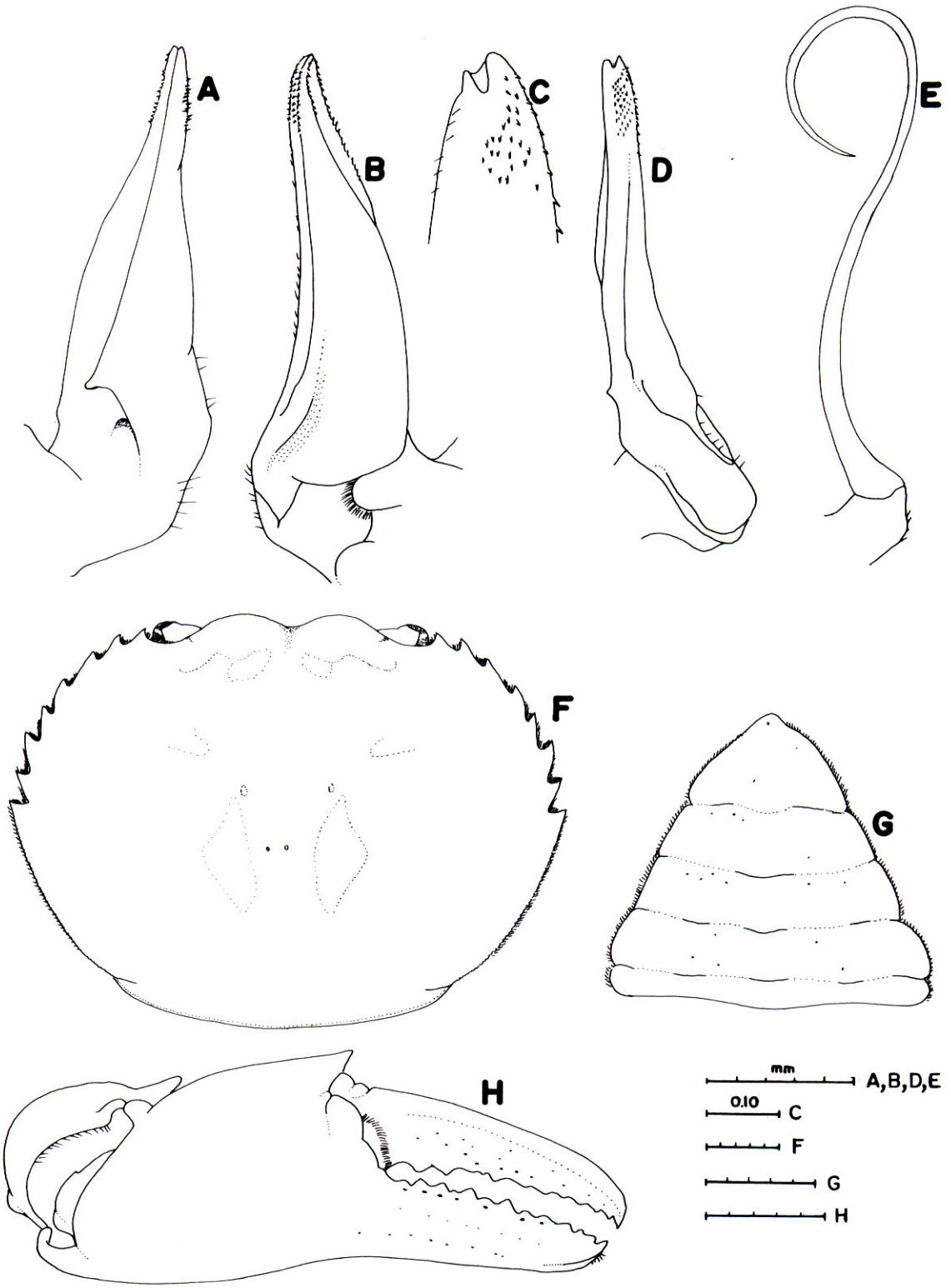

Figura 1: *Dilocarcinus laevifrons* Moreira, 1901, ICN-MHN-CR 1415, left first gonopod: A, whole gonopod, caudal view; B, whole gonopod, cephalic view; C, apex, distal view; D, whole gonopod, lateral view; E, Left second gonopod, whole gonopod, caudal view; F, carapace, dorsal view; G, male abdomen; H, cheliped, external view.

Abdominal segments 3-6 fused in male and female, but suture 3/4 still visible. Male abdomen triangular, outer margins concave, last segment with outer margin slightly convex (Fig. 1G).

First pereiopods moderately unequal in males, merus with 3 median and one distal spines on external margin in females and small males, but one distal spine in large males, internal margin with one median spine, upper margin with acute distal spine, carpus with prominent, acute, distal spine on internal margin, palm of largest chela with acute spine on upper margin near articulation of dactylus, fingers erlarged approximately 1.5 the length of palm, with longitudinal ridges and not gaping when closed (Fig. 1H).

First male gonopod slender, decreasing in size to apex and regular bent laterally. Mesial side concave proximally, lateral side slightly sinuous (Fig. 1A, B, D). Laking of lateral lobe. Cephalic surface with crest-like lobe basally (Fig. 1B). Gonopore V-shape with lateral opening (Fig. 1C). Apical translucent spines, decreasing in size distally, forming continuous patch over caudal and lateral surfaces (Fig. 1A-D). Second gonopod longer than first, bent mesially in form of question mark (Fig. 1E).

4. Remarks

The above described species is closed related to *Dilocarcinus dentatus* (Randall, 1839). They can be distinguished each other by differences in the front and in the first male gonopod. In *D. dentatus* the front is moderately bilobed, with 13-20 acute triangular teeth on its margin, whereas in *D. laevifrons* it is bilobed, but lacking of teeth (Fig. 1F). The cephalic surface of the firs male gonopod in *D. laevifrons* has a crest-like lobe basally, which is not present in *D. dentatus*. The distal portion of margin is bent mesially and emerged on the caudal surface in *D. dentatus*, meanwhile it is straight in *D. laevifrons*. Finally, the gonopore in *D. dentatus* it is U-shape, has corneous ridge and a distal opening, whereas in *D. laevifrons* is V-shape, is lacking of corneous ridge, and has a lateral opening (Fig. 1C).

Acknowledgments

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