

***Lernanthropus corteziensis* n. sp. (Copepoda: Lernanthropidae), parasitic on the gills of a teleost fish in Mexican waters**

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Abstract

A new species of parasitic copepod, *Lernanthropus corteziensis* (Siphonostomatoida: Lernanthropidae), is described and illustrated. The copepod has been found in the Sea of Cortez (Bahia de la Paz) on the gills of *Diapterus peruvianus*, a teleost fish known in the local vernacular as “mojarra”.

Introduction

The genus *Lernanthropus* de Blainville, 1822 (Copepoda: Lernanthropidae) comprises more than 100 species, all parasitic on the gills of teleost fishes, and is abundantly represented in the seas and oceans of the world, especially in lower latitudes. It is comparatively scarce along the Pacific coast of the Americas, where only four species have been recorded (Shiino, 1959; Oliva & Duran, 1982; Castro & Baeza, 1985). It is, therefore, with great interest that we examined specimens of *Lernanthropus* placed at our disposal by Ms Maria Gomez del Prado Rosas. Their unusual appearance suggested that they might belong to a hitherto undescribed species. This proved to be the case. We present below the description of this species, which we propose to name *Lernanthropus corteziensis* n. sp.

Materials and methods

The examination of the specimens was conducted using standard methods. The drawings were prepared with the aid of a camera lucida.

***Lernanthropus corteziensis* n. sp. (Figs 1, 2)**

Material: Three ovigerous females, found in the Sea of Cortez (Bahia de la Paz) by Ms M. Gomez del Prado Rosas in July 1986. One becomes the holotype of the species and is deposited in the Smithsonian Institution, Reg. No. 241573.

Host: *Diapterus peruvianus* (Cuvier, 1830), (“mojarra”).

Habitat: Gills.

Etymology: The specific name refers to the locality of discovery, Sea of Cortez.

Description

Female (Fig. 1A,B): Cephalothorax with dorsal shield about equally long and wide, with antennary region set off, rounded antero-lateral and pointed postero-lateral corners. Trunk narrower than cephalothorax, of fairly even width; dorsal plate of fourth pedigerous segment semi-circular, short, either leaving abdomen exposed (Fig. 1A) or barely covering it in dorsal aspect (Fig. 1B). Genito-abdomen (Fig. 2E) subcylindrical, with prominent lateral swelling around oviduct orifices and tubercle-like peri-anal region.

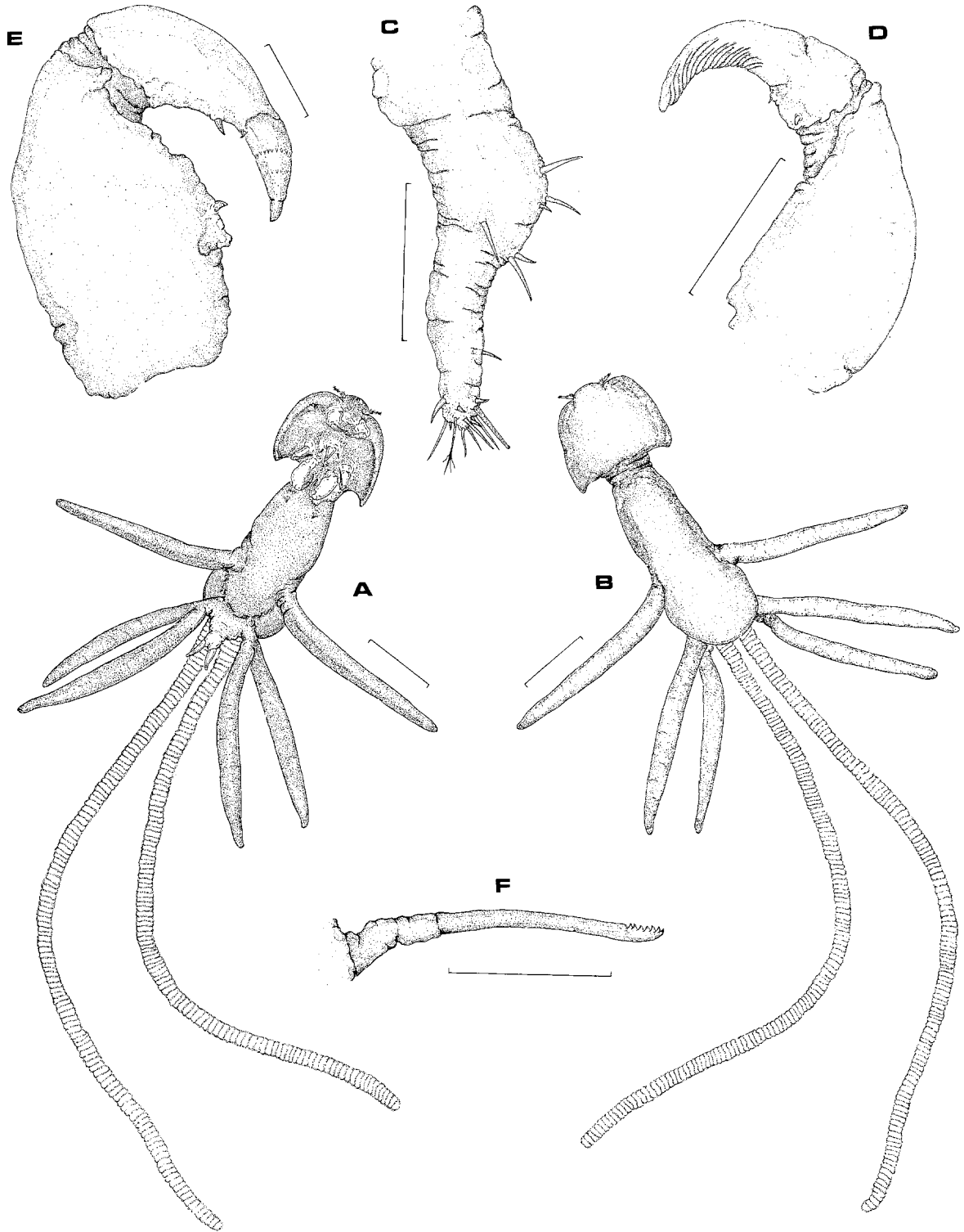


Fig. 1. *Lernanthropus corteziensis* n. sp. A. Female, ventral; B. Same, dorsal; C. First antenna; D. Second antenna; E. Maxilliped; F. Mandible. Scale-bars: A, B, 1.0 mm; D, 0.2 mm; C, E, F, 0.1 mm.

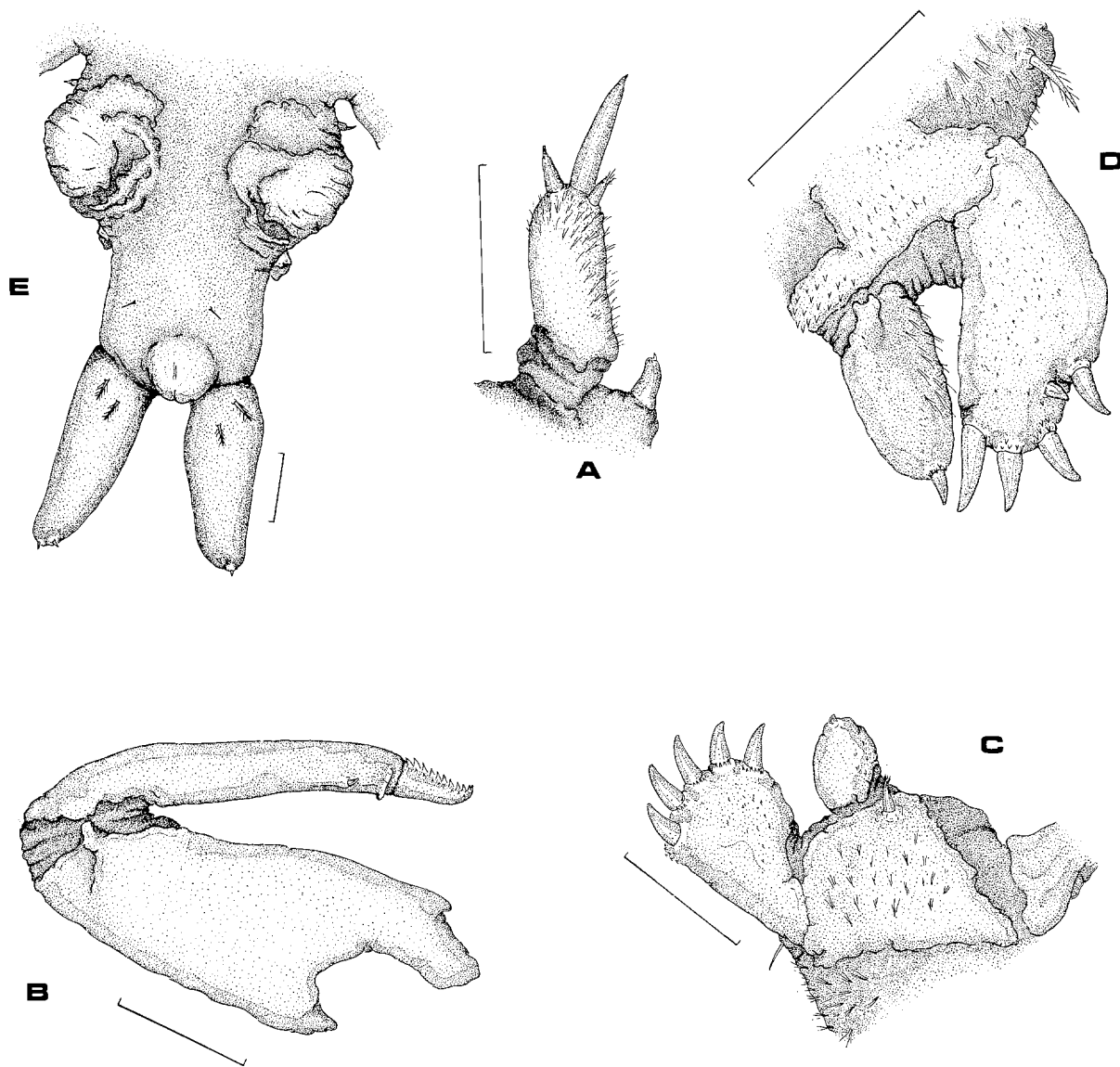


Fig. 2. *Lernanthropus corteziensis* n. sp. A. First maxilla; B. Second maxilla; C. First leg; D. Second leg; E. Posterior extremity. Scale-bars: 0.1 mm.

Caudal rami (Fig. 2E) digitiform, each with 2 pinnate setules on basal part and apically bearing several minute denticles. Egg sacs (Fig. 1A,B) filiform, uniseriate, more than twice body length. Dimensions of holotype (in mm): length to posterior margin of dorsal plate 3.40, to tips of fourth legs 4.88; cephalothorax length 1.16, width 1.08; trunk length 1.60, width 0.92; genito-abdomen

length 0.76; third leg length 2.12; fourth leg length 2.32.

First antenna (Fig. 1C) indistinctly segmented, apparently somewhat wrinkled, with 6 setae on anterior margin and one at mid-length on ventral surface; near or on apex 11 setae and one aesthete. Parabasal flagellum not observed. Second antenna (Fig. 1D) robust, subchelate; corpus

unarmed, subchela strongly hooked, with 2 setules on basal part and numerous obliquely transverse ridges on inner margin of distal half. Mandible (Fig. 1F) siphonostome, proximal part indistinctly subdivided, terminal blade-like, with 7 teeth in dentiferous margin. First maxilla (Fig. 2A) biramous; endopod largely covered with hair-like setules, subcylindrical, bearing apically 3 processes, one much longer than other 2; exopod very small, digitiform, surmounted by diminutive spinule. Second maxilla (Fig. 2B) brachiform; lacertus robust, unarmed; brachium subcylindrical, shorter than lacertus, with transverse flange near tip; terminal claw with 2 longitudinal rows of teeth. Maxilliped (Fig. 1E) subchelate; corpus with wrinkled inner margin, myxal area inflated, with irregular flange and short spinule; subchela inflated proximally, with 2 spinules on inner margin of distal part of shaft; claw tapering, with 2 transverse rows of denticles.

First leg (Fig. 2C) biramous; rami one-segmented; sympod sparsely covered with tufts of minute setules, with fine seta lateral to base of exopod and spiniform seta medial to base of endopod; exopod spatulate, with 5 sturdy spines on distal margin; row of fine spinules along bases of spines, some scattered on ventral surface of ramus; endopod smaller than exopod, bearing single, stubby spine distally and few spinules scattered on ventral surface. Second leg (Fig. 2D) similar to first, but larger; sympod without spiniform seta, but with denticles scattered close to base of endopod; exopod with few large and one small spine on distal margin, denticles along bases of spines and scattered on ventral surface; endopod with single terminal spine, some denticles at base of spine and tufts of setules along and close to lateral margin. Third leg (Fig. 1A,B) uniramous, laminiform, elongate and tapering toward tip, unarmed. Fourth leg (Fig. 1A,B) biramous; rami laminiform, subequal in length, long and

tapering distally, unarmed. Fifth leg (Fig. 2E) proximal to oviduct orifice, greatly reduced, papilliform and surmounted by minute setule.

Male. Unknown.

Discussion

No species of *Lernanthropus* has a female with elongate, laminiform third legs, pointing obliquely caudally and resembling the rami of the fourth legs. This type of third leg is, on the other hand, not uncommon among males of the genus. Fig. 1A,B could be taken at first sight as showing a male, were it not for the presence of very long egg sacs. This masculine appearance distinguishes *Lernanthropus corteziensis* from all its congeners and, in the authors' view, justifies placing it in a new taxon.

Acknowledgements

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