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A new species of *Leptalpheus* Williams, 1965 and new records of *L. mexicanus* Ríos & Carvacho, 1983 and *L. hendrickxi* Anker, 2011 (Crustacea: Decapoda: Alpheidae) from the Pacific coast of Mexico

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Abstract

A new species of *Leptalpheus* is described from Estero Pérula, Jalisco, on the Pacific coast of Mexico. *Leptalpheus corderoae* sp. nov. is most similar to *Leptalpheus azuero* Anker, 2011 from Panama and *Leptalpheus axianassae* Dworschak & Coelho, 1999 from Brazil, differing from both of them by a combination of morphological characters, especially the presence of tubercles on the ventral surface of the major chela palm and pollex. The most common host of *L. corderoae* sp. nov. at the type locality is the callianassid ghost shrimp *Lepidophthalmus bocourti* (A. Milne Edwards, 1870). Additional specimens of *Leptalpheus mexicanus* Ríos & Carvacho, 1983, from Estero de Urías, Sinaloa, are reported and compared to the type material from Río Mulegé, as well as to *Leptalpheus bicristatus* Anker, 2011 from Panama. Finally, *Leptalpheus hendrickxi* Anker, 2011 is reported from Mexico for the first time, representing a significant northward range extension of the species. In Estero Pérula, *L. hendrickxi* lives in burrows of *Lepidophthalmus bocourti*, sometimes together with *L. corderoae* sp. nov.

Key words: *Leptalpheus*, Mexico, infaunal shrimp, burrows, Callianassidae, East Pacific

Introduction

The alpheid shrimps of the genus *Leptalpheus* Williams, 1965 are generally associated with larger burrowing decapods of the families Callianassidae, Axianassidae and Upogebiidae. The 14 currently known species occur in marine shallow waters of the Indo-West Pacific, eastern Pacific, and western Atlantic (Williams 1965; Ríos & Carvacho 1983; Anker *et al.* 2006; Anker & Marin 2009; Anker 2011). Several additional species are known but are as yet undescribed, partly because the specimens collected so far are either incomplete or represent juvenile stages (Anker 2011). Five species have so far been reported from the eastern Pacific: *Leptalpheus mexicanus* Ríos & Carvacho, 1983 (Mexico to Colombia), *Leptalpheus azuero* Anker, 2011, *Leptalpheus bicristatus* Anker, 2011, *Leptalpheus hendrickxi* Anker, 2011, and *Leptalpheus penicillatus* Anker, 2011 (Panama) (Anker 2011).

Recent samplings in coastal lagoons along the Pacific coast of Mexico resulted in the collection of a relatively large series of specimens of *Leptalpheus* representing two of the previously described species (*L. hendrickxi* and *L. mexicanus*) and a species new to science. This material is reported herein.

Material and methods

In December 2010, two specimens of *Leptalpheus* were collected during a routine survey in the Estero de Urías, part of the "Urías" coastal lagoon system, Sinaloa, in the southeastern Gulf of California. In March and June 2013 several additional specimens of *Leptalpheus* were collected in the Estero Pérula, in Bahía Chamela, Jalisco, as part

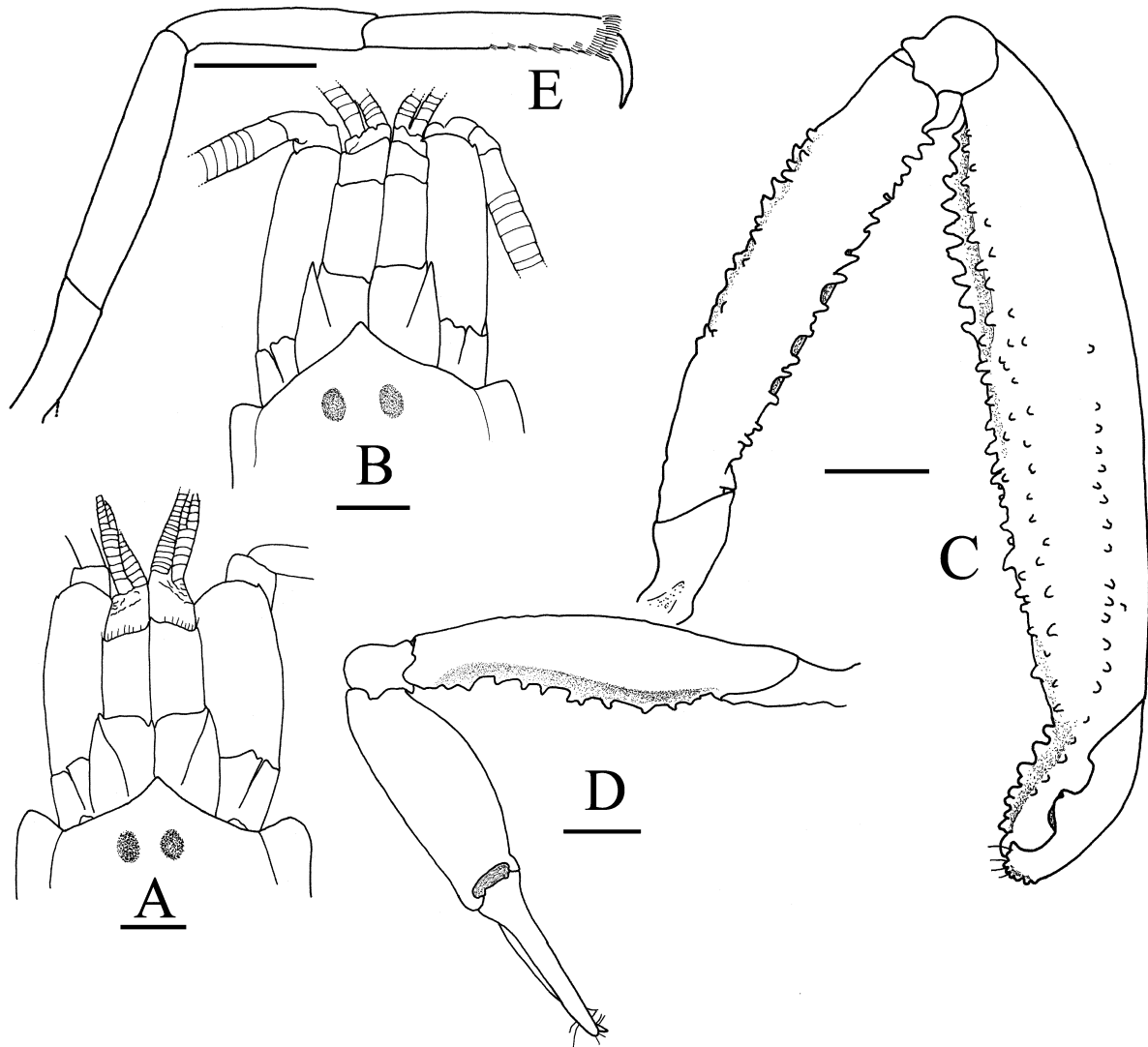


FIGURE 7. *Leptalpheus hendrickxi* Anker, 2011 (A, C, D, E, EMU-10054; B, LEMA-CR 57). A, B, anterior part of carapace and appendages, dorsal view; C, major cheliped, lateral view; D, minor cheliped, lateral view. Scale bars = 1 mm.

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