



A new species of freshwater crab of the genus *Allacanthos* Smalley, 1964 (Crustacea, Decapoda, Pseudothelphusidae) from southern Costa Rica, Central America

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Abstract

A new species of pseudothelphusid crab, *Allacanthos yawi* n. sp., from the Río Volcán drainage, Puntarenas Province, southern Costa Rica, Central America, is described and illustrated. This is the second species to be assigned to the genus *Allacanthos* Smalley, 1964. The new species is distinguished by its congener by having a first gonopod with a mesiolaterally flattened distal portion, a concave and nearly smooth subdistal portion of the lateral and cephalic sides, a narrow marginal process with a nearly straight distal border, and a lateral lobe with a sharp tip on the apex. An amended diagnosis for *Allacanthos* is provided.

Key words: taxonomy, Costa Rica, Central America, Brachyura, Potamocarcinini, Neotropical region

Introduction

Costa Rica in Central America has a remarkably high biodiversity (Wehrtmann & Cortés, 2009) and this is also true for its freshwater crab fauna, which consists of 17 species of pseudothelphusids belonging to six genera (Smalley 1964a; Pretzmann 1972, 1980; Rodríguez 1982, 1992; Rodríguez & Magalhães 2005).

Rathbun (1898) described several new freshwater crab species from Costa Rica, based mainly on somatic characters, in the genus *Pseudothelphusa* de Saussure, 1857, including *Pseudothelphusa pittieri* (see Rathbun 1898, 1905). Smalley (1964a), relying on gonopod structure, divided *Pseudothelphusa* into four subgenera and accommodated *P. (A.) pittieri* Rathbun, 1898, in *Pseudothelphusa (Allacanthos)*, which was subsequently raised to full generic status (Smalley, 1970). Later authors considered *Allacanthos* to be a subgenus of *Potamocarcinus* H. Milne Edwards, 1853 (Pretzmann, 1971), a subgenus of *Achlidon* Smalley, 1964a (Pretzmann 1972), and a subgenus of *Ptychophallus* Smalley, 1964a (Pretzmann 1978, 1980). Finally, Rodríguez (1982) treated *Allacanthos* as a monotypic genus, pointing out that its affinities to the other Central American genera are obscure.

Recent aquatic surveys in southern Costa Rican river basins revealed some individuals of a hitherto unknown species of pseudothelphusid crab that was assigned by us to the genus *Allacanthos* (*sensu* Rodríguez, 1982). The new species is here described, illustrated, and compared to *A. pittieri* (Rathbun, 1898), the other species in this genus.

The specimens examined are deposited in the crustacean collection of the Museo de Zoología, Universidad de Costa Rica (UCR-MZ), the Instituto Nacional de Pesquisas da Amazônia, Manaus, Brazil (INPA), the Museu de Zoologia, Universidade de São Paulo (MZUSP), and the National Museum of Natural History, Smithsonian Institution, Washington, D.C. (USNM). Other abbreviations used are: cb = carapace